

CHAPTER 3

RESEARCH METHODOLOGY

3.1. INTRODUCTION

The research method is a systematic procedure/process that involves enunciating a problem, establishing a hypothesis, collecting data, analyzing the data, and reaching a conclusion, either in the form of a solution to the situation at hand or a generalization for some conceptual formulation. It also includes a variety of different techniques as well as interconnected and overlapping procedures and activities.

Because the research process has so many different features, the course of action must be chosen from several options.

The evaluation of aims and hypotheses, as well as the comparison of many alternatives, can lead to the selection of an appropriate approach.

The present chapter deals with the research method used in the present study for generalization. It includes research design, population, sample, tools for data collection, and data analysis and research procedure for the study.

3.2. STATEMENT OF THE PROBLEM

Development and Implementation of a program of Teaching English Poetry through Constructivist approach for Standard IX"

3.2.1. OPERATIONALISATION OF KEY TERMS

Program of teaching – The program of teaching here refers to the constructivist program of teaching English poetry according to the 7E model to the students of Standard IX

Constructivist approach – It refers to the approach based on scientific observation and research on how people learn. According to this, people learn about the world and how it works through experiencing things and reflecting on those experiences. In this study 7E Model constructivist approach was used in teaching 9 First English language poems of Standard IX GSEB textbook. It helps in the process of understanding the poem to creatively construct a short poem by the students.

3.3. RESEARCH DESIGN

In the present study, the research method was a Quasi-experimental research method. It was a non-equivalent group's pre-test post-test design. There were two groups - the control group and the experimental group. In the control group, the researcher taught poetry through the traditional method of teaching. In the experimental group, the researcher taught poetry through a constructivist approach.

O1 X O2

O3 C O4

Where O1 and O3 were pre-tests

O2 and O4 were post-test

X stands for Experimental Group and

C stands for Control Group

Table 3.1. Tools used for Data collection

	Control group	Experimental group
	Pre-test	Pre-test
Standard	Standard IX (A)	Standard IX (B)
Method of teaching	The traditional method of teaching poetry	Constructivist approach as a method of teaching poetry.
	Post-test	Post-test
Feedback	Feedback form	Feedback form

3.4. POPULATION

The population of the present study included all the English medium schools of Vadodara city. There are 65 English Medium Gujarat State Board Schools in Vadodara City.

3.5. SAMPLE AND SAMPLING TECHNIQUE

A sample is the small proportion of a population selected for the observation and analysis. A sample is the true representative of the population.

In the present study, one school which gave a permit to conduct the program for one year was selected from Vadodara City. Students of two different sections of Standard IX of the same school were taken as the sample of the study. There were 30 students in the control and experimental group. Sampling was done through purposive sampling. The school which allowed implementing the developed program with the facilities like Audio-visual rooms, minimum of two divisions of Standard IX, allotment of the special time of teaching poetry will be chosen as the sample of the study.

3.6. TOOLS

The research tool plays a vital role in procuring sound data which helps in concluding the study. It is also necessary for the researcher to develop skills in the construction of the tool and use them effectively in the study.

3.6.1. DATA COLLECTION

Data mean observations or evidence. Data are both Qualitative and quantitative. The utility and the importance of any study depend upon the findings which in turn depend upon the collected information and the instrument through which the data is collected. As a result, selecting a tool is a critical stage in the research process. The instrument or tool used to gather data must be appropriate for the study, both in terms of reliability and validity.

In the present study, the tools for data collection are Worksheets, Pre-test and Post-test, Observation report and Student's Feedback

1. Worksheets

Based on the 7E constructivist module 9 poem worksheets of the GSEB English textbook were developed by the researcher to analyze the data in quantitative form based on the criteria of theme, grammar, vocabulary, and creative interpretation

2. Pre-test and Post-test

The researcher conducted a pre-test before implementing the program. The pre-test consisted of items like - construction of poetry from a given picture, explanation of the few poetry lines, answering the question from the poetry, etc. The researcher conducted a post-test after the implementation of the program. It was in a parallel form of the pre-test.

3. Feedback form

The data was collected through Student's Feedback form (Appendix). After the implementation of the program, the feedback form was given to the student's and students were asked to mention their honest feedback regarding the program. There were 15 questions in the feedback form and tabular analyses of these questions were done. Each question carried a yes or no answer along with the reasons.

4. Observation Report

While collecting data the researcher also maintained an observation report which mentioned student's progress, experiences, and limitations observed by the researcher.

3.6.2. DATA ANALYSIS

The research process involves several steps whereby one of the steps is analysis and interpretation. With the help of the tool and appropriate method, the researcher collects the data. This raw data to give the meaning needs the application of the statistics. The grouping of the data makes it quite readable but unless the appropriate analysis is conducted, it remains without any sense. The analysis requires the use of parametric and non-parametric statistics.

In the present study, the tools for data analysis were content analysis and Mann Whitney U-test

3.7 RESEARCH PROCEDURE

The procedures followed for research are as follows:

3.7.1 REVIEW OF RELATED LITERATURE

A total of 23 studies were reviewed. The researcher has divided the constructivist studies conducted in various fields like in teaching science, mathematics, English, and other fields. There are around 3 reviews in the constructivist approach in the teaching of mathematics, 5 reviews in the constructivist approach in the teaching of science and 5 studies conducted in India and 10 conducted Abroad in the teaching of English, and one case study on a school following constructivist curriculum.

3.7.2 PREPARATION OF THE PROGRAM

There are 9 poems in the Standard IX Gujarat State Board English textbook. A program was developed by the researcher to teach each poem through the Constructivist approach to the students of Standard IX.

Table 3.2.: List of poems used in the 7E Constructivist approach program

Semester I

Sr. No	Poems	Themes
1.	To a Butterfly by William Wordsworth	Nature
2.	Agnes by Henry Lyte	Different Phases of human life
3.	The Patriot by Robert Browning	Reversal of fortune
4.	Independence by Benjamin Zephaniah	Importance of Freedom

Semester II

5.	The River by Caroline Southey	The movement of a river
6.	Hemelin by Robert Browning	On the folk tale of Pied Piper
7.	Ants	Description of ants
8.	A Psalm of Life by Henry Longfellow	The purpose of life

9.	Once upon a time by Gabriel Okara	The innocence of the past and the Artificiality of the present times
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1. The researcher developed general activities of the constructivist approach for the students.

For example (Appendix I)

2. Teacher developed the program based on the constructivist approach for each poem based on 7E Module. The 7E Module worksheets of each poem are mentioned in Appendix II

3.7.3 VALIDATION OF PROGRAM

A need analysis was done with the sample group of students. (Appendix I) There was two purposes of the need analysis. First to examine the level of vocabulary, grammar, writing skills and creative interpretation of the students and second was to make students familiar with the constructivist activities. On the basis of the need analysis of the sample group of students the tool of the program was prepared using the 7E model of constructivist approach for each of the nine poems of Standard IX GSEB First English language textbook.

The program prepared by the researcher was validated through various experts. Some of the experts were 3 Educationalist and 3 English Literature Professors.

According to the suggestions of the experts, modifications were done and then the program was implemented on the sample of the study.

3.7.4 PREPARATION OF PRETEST

After the validation of the program and need analysis, a pre-test was prepared and implemented on the sample of the present study. The sample of the study was 30 first-year students of Jai Ambe Vidyalaya secondary and higher secondary English medium school, Karelibaug, Vadodara. The pre-test consisted of five questions and the total marks were 25. The first question was of 10 marks consisted of constructing 20 meaning words out of a jumbled letter to check the vocabulary of students. The second question was of 03 marks and included six words and students had to give

meanings again to check the vocabulary of students. The third question was of 4 marks which included an unknown poem and students were asked to give their understanding of the poem to check the writing skills, grammar, and vocabulary of students. The fourth question was of 4 marks in which one line of a poem was given and students were asked to construct a 7-line poem based on the same to check the creativity, grammar, vocabulary, and writing skills of the students and the last question consisted of a picture which the students need to interpret and was of 4 marks.

3.7.5 IMPLEMENTATION OF PROGRAM

The researcher took permission from Jai Ambe Vidyalaya, Karelibaug, Vadodara for implementing the program. After the permission, the researcher implemented the program at the given time and place. The program consisted of 09 poems based on the GSEB syllabus of Standard IX. The program was conducted for one year along with pre-test and post-test.

The invigilator collected English achievement results of standard VIII and based on that 5 groups were formed in the experimental group. The school had 5 division for standard IX. Two close to similar divisions were selected based on their performance in VIII Standard English performance test. 30 students of two different sections of Standard IX of the same school were taken as the sample of the study. 30 students of the experimental group were divided in 5 groups. Each group had below average, average and above average students based on their VIII Standard English performance test. In order to form equal groups, each group had 20% below average students, 50% average and 30% above average students. The ratio of females were lesser than males in the class so Group 1 and 2 consisted of female students and Group 3, 4 and 5 consisted on male students.

The program was based on the 7E Constructivism Module prepared by the invigilator worksheets were made for data collection (Appendix III)

The details procedure of the implementation of each of the nine poems by the research is presented as follows:

Poem 1 To a Butterfly

- First the teacher asked students to collect pictures of live butterflies and make a presentation on the same based on the nature theme of the poem
- Second the teacher asked each group to construct a poem based on the brother-sisters relation theme of the poem
- Then model reading and linking the above activities the understanding of the poem will be discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions and discussion
- to extend the understanding of the poem the teacher asked students to find pictures and information on one rare Indian species which is on the verge of extinction

Poem 2 Agnes

- A video based on an idealist girl's different stages of life was shown based on the theme of different stages of the life of Agnes
- Followed by a discussion of different stages of life and linking the video with the poem
- Then model reading and linking the above video and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions on and discussion
- to extend the understanding of the poem the teacher asked students to find out the life stages of a boy and to mark the difference between a girl and a boy life

Poem 3 The Patriot

- Each group was given different questions based on the two themes of the poem viz. Being aware of good and bad times of life and true friends
- Followed by presentations and discussion of each question by different groups
- Then model reading and linking the above questions and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions on and discussion

- to extend the understanding of the poem the teacher asked students to list of people who they think would be on their side in the good and bad times of life

Poem 4 Independence

- Each group was asked to give their idea of freedom followed by enacted of a play based on the situation based on the theme of the poem
- It was followed by a discussion of the idea of freedom and student's opinion of the play
- Then model reading and linking the above questions and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions on and discussion
- To extend the understanding of the poem the teacher asked students to discuss various questions given on the worksheet

Poem 5 The river

- Each group was given differently to discuss different stages of human life – childhood, youth, adulthood, old age, and death based on the theme of the poem
- Based on different stages of human life pictures were shown to the students in connection with different stages of the river. Students related the stages of the river with the stages of human life with the help of the pictures shown
- Then model reading and linking the above discussions and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions and discussion

Poem 6 Hemelin

- Each group were given two proverbs to discuss and write an understanding of the proverb with day-to-day life examples based on the themes of the poem trust and faith
- Teacher will show pictures to the students based on the theme of the poem and asked the students to write a story based on the pictures

- Then model reading and linking the above discussions and the understanding of the poem was discussed in groups
- to extend the understanding of the poem the students were given a situation followed by a discussion

Poem 7 Ants

- the teacher asked students to observe an insect for 5 days and write a 7-line poem based on the observation followed by a discussion
- Teacher showed different pictures of ants and asked students to note down the characteristics of the ants and link them with the poem
- then model reading and linking the above discussion and the understanding of the poem was discussed in groups
- Each group gave presentation of their understanding of the poem followed by suggestions and discussion
- to extend the understanding of the poem the teacher asked students to collect scientific information on any one of the insects

Poem 8 A Psalm of Life

- Each group was given different questions based on the four themes of the poem viz. Hard work, fulfilling our dream, Art of living, and problem-solving
- It was followed by a discussion of a situation based on the theme of the poem
- Teacher asked students to list characteristics learned from the activities and link them with the themes of the poem
- Then model reading and linking the above discussion and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions and discussion
- to extend the understanding of the poem the teacher asked students to find one more poem with similar themes

Poem 9 Once upon a time

- Teacher showed pictures to students based on the theme of the poem –the difference between natural and artificiality of life

- Teacher will of a lot of different questions to each group examples from day-to-day life based on the theme of the poem
- Then model reading and linking the above discussion and the understanding of the poem was discussed in groups
- Each group gave a presentation of their understanding of the poem followed by suggestions and discussion
- to extend the understanding of the poem students were asked to write a rap song with the title – Once upon a time and to conduct a survey on the artificiality of day-to-day life like milk, grains, beauty products, fruits, and vegetables

3.7.6. POST-TEST

After the implementation of the program, a Post-test was implemented on the sample of the present study. The post-test was of 25 marks and consisted of five questions. The first question was of 10 marks consisted of constructing 20 meaning words out of a jumbled letter to check the vocabulary of students. The second question was of 03 marks and included six words and students had to give meanings again to check the vocabulary of students. The third question was of 4 marks which included an unknown poem and students were asked to give their understanding of the poem to check the writing skills, grammar, and vocabulary of students. The fourth question was of 4 marks in which one line of a poem was given and students were asked to construct a 7-line poem based on the same to check the creativity, grammar, vocabulary, and writing skills students the last question consisted of a picture which the students need to interpret and was of 4 marks.

3.7.7 FEEDBACK

Feedback was taken from students in the form of a feedback form which consisted of 14 questions that were later analyzed through content analysis by the researcher.

3.7.8 COMPARISION OF PRETEST AND POSTTEST

The pre-test and post-test scores were statistically analyzed using mean, standard deviation, standard error, and Mann-Whitney U-test.

3.7.9 INTERPRETATION OF DATA

In the present study the data was interpreted in two ways:

1. Statistical interpretation of data
2. Descriptive interpretation of data

3.7.10. WRITING OF THE REPORT

The writing of the report was done at the end of the research. It is one of the most difficult and important steps of research.

3.8. CONCLUSION

This chapter is the scaffolding of the research. It discusses the systematic details of the research work carried out by the researcher. The details of research design, population, sample, tools for data collection and data analysis, and the research procedure are the main points discussed in this chapter.

The next chapter deals with the actual analysis and interpretation of the data collected