EFFECTIVENESS OF FRAYER MODEL BASED INSTRUCTION ON ENGLISH VOCABULARY AMONG PRIMARY SCHOOL STUDENTS

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Chapter – I
INTRODUCTION

English is an essential language to be learnt in order to meet the ability to communicate with the language itself and create connections with a wider range of the world's population. According to Kemendikbud (2013), teaching a foreign language especially English is the goal to develop students' ability and to communicate fluently in the world. Teaching English includes the teaching of four skills, Listening, Speaking, Reading, and Writing. Panjaitan, (2016) stated that in communication, students need vocabulary which can support them to produce and use meaningful sentences. Students sometimes experience difficulties in using vocabulary which have been studied for some reasons.

One of the most important thing in learning language, especially English is mastering vocabulary. Vocabulary acquisition is very important for a learner as it is related to proficiency and fluency in English. It is the basic thing in learning language because vocabulary hold a crucial position in English language learning (Easterbrook, 2013). The process of learning the words of a language is referred as vocabulary acquisition that helps learners to use the skills of understanding, Reading, Writing and Speaking. Therefore, as language learners, students are supposed to learn a lot of vocabulary acquisition (Avadi, 2016). The students who learn English regularly discover troubles in learning vocabulary. Khan (2018), said that one of the reasons the students discover English troublesome is that they have

restricted learning of words and their use in English. The vocabulary of students does not enable them to convey the appropriate words.

Usually Vocabulary refers to an individual knowledge and understanding of the meaning of words (Kamil and Heibert, 2005). If someone has a good vocabulary they have a broad understanding of the meaning of words which enables them to communicate effectively and comprehend other communication. As teaching vocabulary is one of the most challenging task for the teachers, the creative teacher should use different techniques to help students memorise the new words easily. Vocabulary is a collection of words that the person learns and comprehends. A strong vocabulary is crucial for effective communication, reading comprehension and academic achievement. The creative teachers should use different methods to the students while teaching the vocabulary in the classroom by that the students can easily memorise the new words.

In teaching learning process various methods and techniques are used to teach in English vocabulary (Srinivasalu, 2016). Frayer Model is a graphic organizer used to help students learn new academic term and it is one of the significant strategies to teach English vocabulary to the students. (Alashry, 2018). This model is especially useful for teaching vocabularies that describe concept or vocabulary and students may already know but cannot clearly define. It helps to promote active learning and student's participation in the active learning process. By actively engaging students, they are encouraged to interact with the teachers in the classroom. The Frayer Model was designed by Dorothy Frayer (1969) and her

colleagues at the university of Wisconsin. According to Bauman, (2007) using Frayer Model is an extremely valuable tool for helping students to grasp the meaning and understanding of new concepts. The strategy involves arranging words into a picture with a core concept at the center or at the top and related words linked with the key concept by lines. The visual display of a concept map emphasizes the connections between words.

Need and Significance of the Study

English Language is essential to be learnt in order to have the ability to communicate with the language and to create connections with a wide range of the world population. (Aswathy, 2013). Vocabulary is a key component to master the four language skills listening, speaking, reading and writing. Learners who are rich in vocabulary will be able to express their ideas, feelings and thoughts in English (Wardarita, 2024).The main problem in vocabulary is that students need a complex information of the meaning to reduce misunderstanding. According to Virocky & Simanjuntak, (2018) vocabulary is the most difficult aspect of English for foreign learners to master word and meanings thoroughly.

Frayer Model is a good strategy to help the learners. Hidayah, (2014) stated that the Frayer Model is a strategy that helps students understand concepts and is an excellent graphic organizer that can be used as a basis for writing even with the youngest of students. It allows students to see what a concept is and also demonstrate their understanding by providing examples and non-examples. Frayer Model is especially useful for teaching vocabularies that describes concepts that

students may already know but cannot yet clearly define. Frayer Model layout can be adapted to English language learners and students by asking them to write a definition and associated characteristics, instead of essential and non-essential characteristics. In addition, teacher can model the Frayer Model with pictures and drawings and make effective in teaching and learning vocabulary (Urquhart & Frazee, 2012). However, the reason for using the Frayer Model to teach vocabulary comes from its ability to provide an excellent format for students. It allows students not only determine the meaning of words but also provide their relevant characteristics, examples and non-examples. Therefore, the model is very beneficial for students to develop their vocabulary knowledge (Talah, 2015).

The teachers will be more innovative in teaching process specially in vocabulary and the teachers make the learning process more interesting by using Frayer Model. In this Frayer model strategies have been revealed to significantly increase students' achievement in vocabulary in English. There was a study that corresponded the Frayer Model Learning strategy with enhancing academic performance. The students are interested to enhance and participate with focussed attention and enhancement of the cognitive abilities. The fact that students are interested and motivated in learning the connections influenced their academic performance. Research findings revealed that Frayer Model can be used to determine students' previous knowledge about a concept.

Turner, Russell and Waters (2013) in their investigation found that the Frayer Model develops concepts and builds vocabulary that urges learners to

describe, analyze and synthesize concepts. Tracy (2018) revealed that readers need to be aware of the definition of concept and terms besides being able to provide examples and non-examples of specific terms. Selma (2020) identified that the Frayer Model is useful for helping the students to categories and classify the confusing words which the students encountered in a passage.

Jafaire & Heidari,(2022) investigatedon the application of the Frayer model in teaching vocabulary to language for specific purposes and the results showed that Frayer model had significantly affected the experimental English for specific purposes of students' vocabulary gain.The Frayer model strategy is increasingly attracting the attention of the researchers.

(Kustati., & Prisillia, 2018). Therefore it is beneficial for aiding students differentiate between concepts of which the definition may be complex. The result of this research is expected to be useful for the student to understand how to master vocabulary in English. It was motivated and excited in learning English especially in learning vocabulary by using Frayer Model.

This study examines the following concerns:

1. What is the initial knowledge of students who were taught using Frayer Model and those taught using Conventional method towards enhancement of vocabulary acquisition?

2. Is there any significant difference in vocabulary acquisition between those who were taught using Frayer Model and Conventional method?

3. What are students' responses after they were taught using Frayer Model ?

Statement of the Problem:

With the changing scenario of education, various teaching learning strategies are being implemented to develop learning competencies and create interest among the students through cooperation and collaboration. Frayer Model strategy help students to develop their language proficiency and to learn definitions, characteristics, examples, non-examples and concepts. It has been found to be highly effective and can be facilitated through appropriate learning environments. This study aims to investigate the effectiveness of Frayer Model in enhancing vocabulary among Primary school students. Hence, the problem selected for the present study is entitled as ***Effectiveness of Frayer Model Based Instruction on English Vocabulary among Primary School Students.***

Operational Definition of Key Terms

a) **Effectiveness:**

Effectiveness in this context refers to the observable outcomes or results that occur as the consequence of teaching through Frayer Model based Instruction that brings desirable changes in learning English vocabulary among Class V students.

b**) Frayer Model Based Instruction**

In the present study, Frayer Model Based Instruction refers to the learning approach that promotes collaboration, communication and critical thinking skills in English language among Class V Students that enhances their achievement in vocabulary.

c) **English Vocabulary**

In the present study, English vocabulary has been taken as the accomplishment in general English by the scores obtained by Class V students in an objective type test after treating with Frayer Model of teaching.

d**) Primary School Students**

Class V students refers to the students belongs to the age group of 11 to 12 years. In the present study class V students means students studying in Yettacode Nursery Primary School Veyanoor. In this context, Effectiveness of Frayer Model technique for enhancing vocabulary in English of class V students means to prepare and test the effect of lesson transcript based on Frayer Model in enhancing English Vocabulary for the students of class V. In the present study class V students in Yettacode Nursery Primary School Veyanoor.

Objectives of the Study

The objectives framed for the present study are as follows

1. To prepare and validate lesson transcripts based on Frayer Model in teaching English vocabulary for class V students.

2. To test the effectiveness of Frayer Model based instruction by comparing mean pre- test and post test achievement score of vocabulary in English among class V students of experimental group.

3. To compare the mean pre-test score of English vocabulary for class V students in the experimental group and control group.

4. To compare the mean post - test achievement score of English Vocabulary of class V students of experimental and control groups.

5. To find out the significant difference in mean adjusted post-test achievement score of English Vocabulary of Class V students of the experimental group and control groups when pre- test scores is taken as covariate.

Hypotheses of the study:

In pursuance of the above stated objectives following hypotheses were formulated.

1. There exists no significant difference in the mean pre- test and post-test achievement scores of English Vocabulary of class V students in experimental group.

2. There exists no significant difference in mean pre-test achievement scores of English Vocabulary of class V students in the experimental and control groups.

3. These exists no significant difference in mean post-test achievement scores of English Vocabulary of class V students in the experimental groups.

4. There exists no significant difference in mean adjusted post-test achievement scores of English Vocabulary of class V students in experimental and control groups when pre-test is taken as covariate.

Methodology in Brief

1. Method Adopted:

Experimental method was adopted for conducting the present study.

2. **Experimental Design:**

      Non-equivalent pre-test post-test design was used for the present study.

3. **Sample**

      The sample for the present investigation consists of 85 students of Class V selected from a primary school in Kaniyakumari District.

4. **Tools to be Used**

      The following tools were used for collecting data.

a) Lesson Transcript based on Frayer Model in English Vocabulary of Class V prepared by the investigator.

b) Vocabulary test on selected concepts in English for Class V students prepared by the investigator.

5. **Statistical Technique**

      In the present study the following statistical techniques were used.

a.   't' test
b.   ANCOVA

Delimitation of the Study

      The following are delimitations of the study.

1. The study was limited to one school in Kannyakumari district.

2. The sample size was limited to 85 students only.

3. The experimental study was confirmed only for English medium students.

4. The study was conducted for a period of three weeks only.

Organization of the report

      The present study is reported under 5 chapters.

Chapter I: deals with Introduction, Need and Significance of the study, Statement of the Problem, Operational definition of the key terms, Objectives of the study, Hypotheses of the study, Methodology in Brief and Delimitation the study.

Chapter II: deals with Review of Related Literature that contains two sections.

Section A – contains theoretical overview of the study

Section B – contains review of related literature containing India and Foreign Studies and critical review of the study.

Chapter III: deals with methodology adopted for the study that contains two sections,

Section A – Development of Instructional Design, Achievement Test.

Section B – Method adopted for the study for the research design, variable of the study, experimental procedure, tool based, administration of tools, sample selected for the study and statistical techniques used for the study.

Chapter IV: includes the details regarding the analysis of data, result and their interpretation of the data.

Chapter V: deals with study in retrospect, major findings of the study, conclusion, educational implications and suggestions for further research in this area of the study.

Chapter – II
REVIEW OF RELATED LITERATRE

The review of literature provides an overview of the topic of research. The objective of their study should be the first topic covered in the literature review. This should be followed by a preview of what to expect in the literature review. The goal of the literature review is to convey in a brief manner our degree of comprehension of the research relevant to our project.

Objectives of Review of Literature

1. It provides theories, ideas, explanations, or hypotheses that may be valuable in the formulation of a new problem.

2. It reveals whether the current evidence is sufficient to solve the problem without the need for further study.

3. It describes the sources of the hypotheses. The researcher can develop research hypotheses based on accessible studies, which is critical for directional hypotheses.

4. It recommends a strategy, procedure, data sources, and statistical techniques that are suited for the situation.

5. It helps in the development of the investigator's skills and overall scholarship in the field under investigation.

6. It contributes to an accurate understanding of the facts or literature in one field of action, which is an excellent way to establish oneself.

A review of literature has the following functions:

1. To justify their selection of research questions, theoretical or conceptual framework, and approach;

2. To demonstrate the significance of the topic;

3. To offer the background information required to understand the study;

4. To demonstrate their understanding of current research related to the topic;

5. To establish their work as part of a larger chain of knowledge development of the field.

Review of literature is given in two sections:

Section A: Theoretical Overview

Section B: Review of Related Studies

Section-A

THEORETICAL OVERVIEW

The conceptual framework of Frayer Model is presented in this section.

English is one of the most spoken languages in the world. English language is essentially required to be learnt in order to meet the ability, communicate with the language itself and create connections with a wide range of the world population. According to Kemendikbud (2013), teaching of foreign languages, especially English, is the goal to develop students' ability to communicate fluently. Teaching English includes the teaching of four skills, such as Listening, Speaking, Reading and Writing. Panjaitan (2016) stated that "In communication, students need vocabulary which can support them to produce and use meaningful

sentences. Students should be able to master vocabulary, because without enough knowledge of words, they cannot listen, speak, read, and write. In teaching vocabulary, the teacher must have mastery of the language. The teacher's mainrole is to teach and facilitate the learning of a specific curriculum.

Usually, vocabulary refers to an individual's knowledge and understanding of the meaning of words (Kamil & Hiebert, 2005). If someone has a good vocabulary, they have a broad understanding of the meanings of words, which enables them to communicate effectively and comprehend others' communication. As teaching vocabulary is one of the challenging tasks for the teachers, the creative teacher should use different techniques to help students memorise and new words easily.

Vocabulary is a collection of words that the person can learn and comprehend. A strong vocabulary is crucial for effective communication, reading comprehension and academic achievement. When someone knows enough words, they may communicate through their feelings, thoughts, ideas, emotions and comprehension to other person. Learning vocabulary in English helps learners in acquiring the fundamentals of Listening, Speaking, Reading and Writing. Without an extensive vocabulary, the students may find very difficult to comprehend the language. Students require an extensive vocabulary in order to make use of their language abilities because vocabulary plays a crucial part in language acquisition. Building communication is impossible without a large vocabulary. Vocabulary learning goals help in deciding the kind of language to be learnt and taught. Nation

(2000) suggests three types of information to keep in mind while deciding the goals in learning.

• Number of words in the target language

• Number of words known by the native speakers.

• Number of words required to use another language.

Based on this learning process, the students should be encouraged and motivated to learn vocabulary. A good teacher considers these factors when presenting vocabulary to ensure that the students can easily understand and remember the new words. A new vocabulary is too difficult to remember and memorise so the teacher should create new methods, techniques and even strategies that are really needed for this method.

Frayer Model as a method of teaching and learning inorder to identify and familiar the concepts and vocabulary by the students and to find their new ideas and meanings of vocabulary.

Frayer Model

Frayer Model is a strategy to help the learners to develop their language proficiency. According to Hidayah, (2014) the Frayer Model is a strategy that helps students understand concepts and is an excellent graphic organizer that can be used as a basis of writing It allows students to see what a concept is and what is not. The Frayer Model was designed by Dorothy Frayer 1969 and her colleagues at the University of Wisconsin. This Model is especially useful for teaching

vocabularies, that describe concepts or vocabulary and students may already know but cannot yet clearly define.

Use of Frayer Model

Learning vocabulary is often a automatic exercise, with students just memorizing words. But with the application of a graphic organizer the learning can be more in depth and made enjoyable for the students. The Frayer model help students to learn the meanings and applications of unfamiliar words and concepts. The Frayer Model strategy helps students to identify, understand, learn new vocabulary and build their vocabulary. It activates past knowledge, links it to the new concepts and stimulates critical analysis of the information. One unique plan of this model is the visual representation, which facilitates easy retention and recall.

Take a particular word in a reading assignment and instruct students to list all the related information what the students are already know?. The students can start with examples, will make identifying the other facts easier. From the list of examples generated, encourage students to find the essential characteristics of the word or concept. Similarly guide them into identifying the non-essential traits and the non-examples of the word or concept. Represent or write down these answers in the four sections and review. Students read through the reading assignment and try to identify any additional information that can be added into the four sections on this word or topic. Summarize the information and help students to define and illustrate the word or concept.

Later, assign the groups and encourage students to apply the technique to find the meaning of other words on a given list. At the end of the session adding in information from the various groups can form a collective template. It enables the students to share their ideas and provides an assessment for the teacher for the whole class.

Structured Approach

In Frayer Model, the teacher asks the students to write a definition, characteristics, examples and non-examples to learn the vocabulary. The teacher shows the Frayer Model pictures and drawings to the students. In the teaching learning process the Frayer model is the effective method for the students.

Vocabulary Development

However the reason for using the Frayer Model to teach vocabulary comes from its ability to provide an excellent format for students. It allows students to not only determine the meaning of words but also provide their relevant characteristics, examples and not examples. In Frayer Model it is highly beneficial for students to develop their vocabulary knowledge.

Concept Clarification

The Frayer Model helps clarify complex concept by breaking them down into smaller components. Students can analyse the key features of a concept and identify how its relates to other ideas or topics the students are learned.

Critical thinking

Through Frayer Model, students engage in critical thinking as considered the various aspects of the concept as its attributes and applied their knowledge to different situations. Critical thinking process promote analytical skills and encourage students to think deeply about the content.

Versatility

Frayer Model can be used across various subjects and grade levels to teach a wide range of concepts, from vocabulary words to scientific principles. Educators should adapt the Frayer Model to suit the specific learning objectives and content areas are addressing.

Active Learning

By actively engaging students in filling out their different sections of the Frayer Model, educators promote active learning and student participation in the learning process. In this process students are encouraged to interact with the material and construct their understanding actively.

Overall, the Frayer Model is a valuable tool in teaching that empowers students to explore, analyze, and make sense of complex ideas, contributing to their overall academic growth and development.

The Frayer Model includes a four-square chart that provides academic vocabulary knowledge, clarifying, determining, and analyzing the difficult vocabulary, word structure and meaning. The central oval has the chosen word written on it. Sometimes parts of speech are also written in the central oval. Frayer

Model is a graphic organizer used to help students learn new academic terms. It includes four squares that represent a word's characteristics, definition, examples, and non-examples. In this model the students learn a lot of difficult words easily.

Frayer model works by having the chosen word written in the center of an oval. Within each of the four squares surrounding it, its associated concepts can be written down.

The first square is for its characteristics; that includes defining something such as sizes, shapes and functions.

The second box is for definition; that is usually expressed in one sentence and it should cover the common meaning of the word.

The third box holds an example provided to give context around what can be expected from the given concept.

In the fourth box there is a listing of related non-examples; In this box students have to write down items that are related but do not fit into the current definition as presented by either characteristics or examples found in other squares, finally the decision is completed.

Application of Frayer Model in Teaching

Vocabulary Building:

Introduction: Teachers introduce new vocabulary using the Frayer Model, helping students grasp the meaning and variations of the term.

Engagement: Students engage with the word by defining it, identifying characteristics, and providing examples and non-examples.

Concept Mastery:

Deep Understanding: By exploring different aspects of a concept, students increased a deeper understanding beyond memorization.

Critical thinking: Analyzing examples and non-examples to help critical thinking to the students distinguish between similar concepts.

Collaborative Learning:

Group Work: Students can work in groups to fill out the Frayer Model, promoting discussion and collaborative learning.

Peer Teaching: Students explain their Frayer models to peers, reinforcing their understanding and communication skills.

Assessment and Review:

Formative Assessment: Teachers can use the completed Frayer Models as formative assessments to calculate something understand to the students'

Review Tool: Students should use their Frayer Models as a review tool for tests and exams.

Strategies to Introduce Frayer Model in the Classroom

- *Guess the word*: Display a completed Frayer model without mentioning the word or concept. Ask students to guess the word, based on the clues given. If students are not able to identify the word prior to reading, allow to read through the reading portion and then identify the word. Give this activity as a group task and the group that finishes identifying all the words first wins.

- ***Give incomplete templates:*** Instruct student groups to fill in the incomplete templates. This can help activate prior understanding and help connect it to the new information. Critical analysis is stimulated when students are instructed to explain their answers.

- ***Carousel Brainstorming***: The students can use the Frayer model in combination with carousel brainstorming. Different templates can be placed around the classroom in separate workstations. Each group is given a time of 2-3 minutes to fill any box of the template. At the end of time, the group moves to the next template. The students can also add additional information to the boxes already filled. At the end of the exercise, each group can summarize the template at the end of the period.

- These strategies using the Frayer Model will allow students to become engaged in learning new vocabulary or concepts. With these easy and practical ways to incorporate this model into the classroom, students will begin to love learning.

Procedure to draw Frayer Model

Students separate a page into four quadrants by drawing one horizontal line and one vertical line with an oval in the centre.

They are labelled as quadrants in the following manner

- Definition

- Characteristics

- Examples

- Non-examples

This provide students with the concept then the students want them to think about and have them write this in the centre oval of the graphic orgranizer. Begin by using a familiar concept to explain a Frayer model diagram and demonstrate how to fill it in. .Give students time to fill in the diagram..Once the diagram is complete, let the students share their ideas with a partner or group, modify their diagrams as they accept the information.

Partners or small groups then share out their thoughts or participate in a whole-classroom discussion.

Procedure of Teaching Vocabulary using Frayer Model:

- The teacher introduces the topic to the students and divides the students into groups and have them list out as many examples of mammals as they come up with. Then, come back together as a class and list the examples of a board.

- The students will help to see the relationship between concepts.

- The teacher writes any items and examples on the map. Then, teacher discusses with the students about the characteristics of all the examples of the main concept.

- Guiding students into finding the nonessential characteristics. The ones that are irrelevant to the main concept.

- Students have read about the main concept. As the students read,the teacher encourages them to look for additional information that can be added to the

model. They can look for any information that fits into any of the four categories.

Teaching of Frayer Model

Explain about the Frayer model chart in the classroom by using a common word to demonstrate the various components. Model the type and quality of desired answers when giving the examples. Think out loud as you try to come up with examples and non examples, etc. Pictures or symbols can also be used.

Then review a pre-selected list of key concept words with the classroom before reading about the topic in the textbook. Read the text selection.

Choose a key concept word from the topic read and then the students will help you to complete the Frayer chart.

Pass out blank copies of the Frayer Model or have students create a chart in their copies.

Then students practise the strategy in pairs or in small groups with the key concepts and key vocabulary from the topic. (Each group could also be given different key concept words).

The groups share their completed charts with each other. Students can then add additional words/images/symbols to the Frayer chart until all four categories are substantially represented.

Implementation

1. Select a word from a self-contained passage of text.
2. Establish the purpose of the strategy.

3. Provide students with a Frayer Model and use think-aloud as you model the- process of using the Frayer Model to ;analyze the word and determine its meaning.

- Write the selected word.

- Write the characteristics of the selected word. Scaffold as needed. • Write examples of the selected word. Scaffold as needed.

- Write non-examples of the selected word. Scaffold as needed.

- Write a definition for the selected word in your own words. Scaffold as needed.

- Check the meaning of the word with the dictionary definition. Have students use Frayer Model to determine the meaning of words.

Scaffolding:

Provide initial guidance and model how to complete a Frayer Model, especially for younger students or those new to the tool. Gradually release responsibility to students as they become more comfortable with the process.

Differentiation:

Adjust the complexity of terms and concepts based on students' grade levels and proficiency. Allow students to choose terms or concepts to work on, giving them a sense of ownership over their learning.

Incorporating Feedback:

Encourage peer review and provide specific feedback on students' models to guide improvement and deeper understanding.

Connecting to Larger Units:

Use Frayer Model as part of larger instructional units, integrating it with

other graphic organizers and activities to reinforce learning.

Assessment and Reflection:

Have students reflect on their completed Frayer Models, assessing their understanding and identifying areas for further study. Use Frayer Models as formative assessments to monitor progress and adjust instruction as needed.

Measuring Progress:

- Teacher observation

- Conferencing

- Student journaling

Digital Frayer Models:

Utilize digital tools such as Google Slides, Padlet, or specific educational apps to create interactive Frayer Models. Frayer model enhances engagement, especially in remote or hybrid learning environments.

Extended Frayer Model:

Add more sections to the traditional four-quadrant model:

Visual Representation:

Include drawings or images representing the concept.

Personal Connection:

Relate the concept to students' experiences.

Questions:

Space for questions or uncertainties about the concept.

Frayer Model for Text Analysis:

Adapt the Frayer Model for analyzing texts, where students identify the main idea, supporting details, text structure, and purpose of a passage.

Advantages of Frayer Model:

1. Helps make connections between what students know and what students will learn.

2. Know what students will learn and improves retention of information. It can be used before, during or after reading.

3. Students learn how one concept relates to another concept.

4. Frayer Model strategy is excellent for revising the vocabulary.

5. Make the students be active because each student has to define a concept or word.

6. Opportunities to be given to all the students to describe the characteristics, providing the examples of the idea and suggest non examples of the idea.

7. Use critical thinking skills the students were asked thoughtful questions to narrow down a large list of words to one "secret word".

8. Make the team work cohesively and build up the confidence level of the students.

Disadvantages of the Frayer Model:

1. Some students will be passive because the students have a lack of vocabulary.

2. Some of the students are missing the vocabularies because they do not focus on some of the active students who can focus on Frayer Model strategy.

3. Confident students tend to dominate when defining the secret word.

4. Frayer Model strategy will need more time.

Section-B

REVIEW OF RELATED STUDIES

The review of related studies provides certain theoretical aspects on research studies which are related to the present study.

Maswani., Alawiyah, et al., (2024) in their investigation found that "The Frayer Model Effectiveness in Arabic Vocabulary Development for Students in Madrasah." Using Frayer Model learning approach, the study seeks to increase the vocabulary knowledge of grade XI students at Madrasah Aliyah Negeri 11 Jakarta. This study, which was carried out as classroom action research, discovered that 86% of students met the Minimum Completeness Criteria, and the average student score raise from 70.68 in the first cycle to 77 in the second. According to the study's findings, the Frayer Model offers a variety of learning strategies and successfully improves students' comprehension of language critical thinking skill, and learning independently.

Wardani., R, & Surastina .,(2024) conducted a study on"Frayer Model on Students' Vocabulary Acquisition." The study looked into how the Frayer Model impressed Indonesian tenth-grade students' vocabulary acquisition. The usefulness of the Frayer Model in improving vocabulary abilities was demonstrated by the fact that the experimental group, which was taught using the model, scored higher (average 74.21) than the control group, which was taught using traditional translation procedures (average 63.15).

Dilshodakhon., (2024) states that "Enhancing Vocabulary Proficiency Through the Frayer Model: Effective Strategies for Educators" with the use of the Frayer Model, it implements effective ways of teaching vocabulary, educators can empower students to build a strong foundation of words to enhance their language proficiency and finally students may communicate more effectively in various situations.

De Gennaro., & Slaten., (2023) in their investigation on Frayer Model as Analysis of Instruction and Student Knowledge in an Introductory Astronomy Course." In this study the qualitative analysis explored how instruction in an undergraduate astronomy course informed students about the concept of blackbody radiation. This study used a case study approach using pre- and post-lesson Frayer Models to shack light on students' conceptual knowledge and the usefulness of the model in explaining difficult scientific ideas. The findings, applying the Frayer Model, greatly enhanced students' conceptual grasp of expanding their knowledge.

Gamal., (2023) conducted a study on "The Impact of Frayer Model and Contextual Redefinition Strategy on Improving Preparatory Stage Pupils' Vocabulary Learning." This study experimented the effectiveness of the Frayer Model Plus as an interactive teaching learning strategy. It became clear that students' vocabulary acquisition outcomes were enhanced when the students used Frayer Model Plus to discuss, share, and describe various concepts.

Jafarie & Heidari (2023) in their investigation"The Frayer Model Effectiveness in the LSP Vocabulary Development: The Case of English for Iranian Computer Sciences Majors." The effectiveness of Frayer Model in helping Iranian Computer Science majors expand their vocabulary for language for particular purposes (LSP) was the main emphasis of this study. According to the study, the Frayer Model greatly improved the students' technical vocabulary acquisition, which improved their ability to understand their texts that were relevant to their subject.

Kingsbridge, (2023) conducted a study on"Frayer Models: A Tool for Explicit Science Vocabulary Teaching." This article examines how the Frayer Model can be used in Science education, highlighting how it can be used in a variety of ways to express terminology because of the model's flexibility, teachers can modify its portions to fit certain words and the needs of their students, improving vocabulary comprehension in scientific settings.

Labajo, (2023) in their investigation "Utilization of the Modified Frayer Model and Semantic Map: Its Influence on Motivation Towards Science." This research studied how the use of Modified Frayer Model and Semantic Map graphic organizers influenced students' motivation towards Science subjects. The study revealed that the instructional strategies not only improved academic performance of the students but also positively impacted students' enthusiasm and engagement in Science subjects.

Riksadianti., (2023) conducted a study on "Enhancing Vocabulary Through Frayer Model."This study investigated the significant effect of Frayer Model in enhancing students' vocabulary at a private vocational high school in Garut. By employing the quasi-experimental design with pre-test and post-test assessments, it was discovered that pupils who were taught the Frayer Model significantly outperformed those who were taught traditional methods in terms of vocabulary acquisition.

Scott M, Petri.,(2023) in their investigation revealed that "May The Frayer Model Live Forever History Rewriter". In this study of the discussion of Frayer Model's adaptability in Social Studies instruction, Petri emphasizes how it may be used to assist learners develop a deeper comprehension of subjects knowledge, terminology, and concepts and gives examples of how to compare various themes and assess historical people using the approach.

Elbanna., (2023) conducted a study on "14 Reasons Why Teachers LOVE Using Frayer Model. "The Model highlights the effectiveness in vocabulary instruction across various subjects' knowledge and grade levels.According to the study, structured learning helped students go beyond rote memory and gain a deeper conceptual grasp. The findings of the study showed that improved retention, better critical thinking abilities and enhanced classroom discussions, making it a practical and impactful teaching tool.

Cordova., & Castro., (2022) in their study revealed that "Frayer Model: A Strategy to Improve the Science Vocabulary of Grade 9 Students of Bagbag

National High School." The efficacy of Frayer Model in improving ninth-grade students' scientific vocabulary was evaluated in this quasi-experimental study. Frayer Model's effectiveness in enhancing scientific vocabulary was suggested by the results. The result showed that the experimental group exposed to it performed better than the control group.

Plankers., (2022). Conducted a study on "The Effectiveness of Frayer Model in Enhancing Vocabulary." This study demonstrated how Frayer Model helps students express vocabulary words using definitions, synonyms, and antonyms as well as visual aids. The model's conformity to constructivist learning principles, which encouraged and motivated to bring active student engagement in vocabulary learning, was highlighted in the study.

Rao., & Dazzeo., (2022) conducted a study on "Digital Frayer Model: Supporting Vocabulary Acquisition with Technology and UDL." The integration of Frayer Model with digital technologies and Universal Design for Learning (UDL) concepts was covered in this article. The authors found that by offering multimodal representations and interactive learning opportunities, this integration aids in vocabulary acquisition, especially for individuals with learning difficulties.

Panjaitan., & Sihotang., (2020) made an attempt to investigate "A Comparative Study Between Frayer Model and Concept Mapping Strategy to Enhance Students' Vocabulary Acquisition." The study contrasts how well the Frayer Model and idea mapping techniques improve students' vocabulary acquisition, offering useful information to teachers looking for efficient

vocabulary teaching techniques. This study found that the implementation of Frayer Model enhances students' vocabulary acquisition.

Guerraiche., (2020) revealed that "Enhancing Student Comprehension Through the Frayer Model" Frayer Model is useful for helping the students to categories and classify the confusing words which the students encountered in a passage. Therefore it is beneficial for aiding students differentiate between concepts of which the definition may be complex. The result of the study enhances the effectiveness of Enhancing the students comprehension in academic achievement.

Ibrahim (2020) investigated the 'effect of some context hints in teaching vocabulary on Iraqi EFL University student achievement.' The researcher found that learning vocabulary through context could help pupils increase their vocabulary knowledge. The researcher also stated that exposure to words in context is superior to solitude. The study's findings revealed that pupils in the experimental group outperformed the control group. The study's goal is to investigate how teachers can effectively incorporate the Frayer Model and contextual redefinition strategy into the EFL classroom in order to improve learners' vocabulary learning. The Frayer Model and contextual redefinition strategy have a positive effect on pupils' vocabulary learning.

Alashr, Qoura et.al., (2018) in their investigation "The Effectiveness of the Frayer Model in Enhancing Vocabulary Learning and Student Engagement"found that a Frayer Model was effective in attracting pupils' attention, activating pupils'

previous knowledge and experiences, actively involving pupils' in the learning process of vocabulary, helping pupils to construct meaning and demonstrating their learning.

Rahmadani (2018) proves that "The Impact of the Frayer Model on Students' Vocabulary Mastery: A Comparative Study" the use of the Frayer Model has significant effects on students' vocabulary mastery, since the score of the students who were taught by the Frayer Model is higher than using the conventional method as the eighth grade students.

Aryanti., M.Y (2017) conducted a study on "Improving Students' Understanding of New Words in Descriptive Text by Using Frayer Model. This Frayer Model research focused on improving students' comprehension of new vocabulary within descriptive texts through the application of Frayer Model. The study concluded that the Frayer Model significantly aids in enhancing students' understanding and retention of new vocabulary in descriptive texts.

Estacio, R. D., & Martinez, D. O. (2017) revealed that "The Use of Modified Frayer Model in Developing Science Vocabulary of Senior High School Students. This Frayer Model study employed a randomized pretest-posttest control group design with 60 senior high school students in the Philippines. The experimental group received instruction using a modified Frayer Model, while the control group followed traditional methods. The experimental group demonstrated a statistically significant improvement in science vocabulary acquisition compared

to the control group, indicating the effectiveness of the modified Frayer Model in enhancing students vocabulary.

Tracy (2018) revealed that "The Role of the Frayer Model in Conceptual and Vocabulary Development" This Frayer Model strategy the readers need to be aware of the definition of concept and terms besides being able to provide examples and non-examples of specific terms. The Frayer Model has been designed to define the concept as well as vocabulary. The result showed that students enhance their vocabulary development.

Raba., (2017) revealed that "The Effect of Using the Frayer Model on Developing Vocabulary Achievement of EFL Students". The study focused on the impact of using the Frayer Model to enhance vocabulary acquisition among students learning English as a Foreign Language (EFL). Frayer Model greatly enhanced students' comprehension and vocabulary retention. By classifying word meanings according to definitions, traits, instances, and non-examples, students were better equipped to understand and retain new vocabulary. The study found that students were more motivated and engaged in vocabulary exercises. Frayer Model's interactive and visual features made it particularly useful for EFL students who gain from structured language input. The study concluded that significant improvements in vocabulary growth and general language proficiency can result from incorporating the Frayer Model into routine training.

Rahmat, A & Aziz, N (2017) investigated that " Using the Frayer Model to Improve Students Vocabulary Mastery". The research aimed to investigate how

the Frayer Model affects vocabulary mastery among secondary school students in an English as a Second Language (ESL) context. The results showed that by methodically analyzing word meanings, Frayer Model successfully assisted students in expanding their vocabulary. Contextual knowledge was boosted by the inclusion of examples and non-examples, and memory retention was improved by the model's visual presentation. The study observed that students showed increased independence in vocabulary acquisition and increased confidence while utilizing new words. Both teachers and students embraced the program, which also promoted active student participation. According to their findings, Frayer Model is an effective and useful method for vocabulary growth in ESL classes.

Yulef., H, (2017) conducted a study on "Improving Students' Vocabulary Mastery Through the Frayer Model Technique at Junior High School Level". The researcher examined that the effectiveness of using Frayer Model to improve vocabulary mastery among junior high school students in an Indonesian EFL setting. that Frayer Model greatly improved students' language usage and comprehension. By examining definitions, traits, instances, and non-examples, the method enabled pupils to delve deeper into the meaning of words. Students were able to better organize and recall new vocabulary according to the approach, which promoted active learning. Students' ability to build meaningful sentences and use words in context also improved, according to the study. The study concluded that Frayer Model is a useful and approachable technique for teaching vocabulary in EFL classes.

Buhel., (2015) investigated that "Effectiveness of Frayer Model as a Vocabulary Instruction Tool." His study highlights that the paradigm promotes a thorough understanding of academic concepts by instructing students to define a word, identify its basic properties, and provide both instances and non-examples. The study indicated that this strategy improves critical thinking and allows pupils to build meaningful connections with new terminology. Frayer Model was particularly beneficial in curriculum areas such as science, social studies, and English, making it a versatile tool for teachers. He found that when the model was utilized consistently, students retained language better and participated more actively in classroom discussions. The results demonstrated that adopting the concept into collaborative group work boosted its effectiveness. Buehl concluded that Frayer Model remains a powerful and adaptable tool for improving vocabulary comprehension and academic success.

Qasrawi (2015) investigated the "Effectiveness of using the Frayer Model strategy in developing students' vocabulary knowledge." It also investigated the strategy's effectiveness in providing students with skills for inferring the meaning of unknown words based on context. The study used the quasi-experimental design methodology. The sample was randomly assigned to two groups (experimental and control). The experimental group was taught the identical list of vocabulary using the individual word technique. The test served as the study's primary instrument. The post-test total score differed significantly between the experimental and control groups. It was discovered that the FRAYER model

teaching technique increased students' vocabulary knowledge. Students demonstrated an improvement in their ability to infer the meaning of unknown words.

Rashidi (2014) revealed that the "Effects of two vocabulary teaching techniques (Frayer Model and contextualization techniques) on the elementary Iranian EFL Learners" 190 male and female language learners were chosen at random and divided into two groups—a control group and an experimental group—in order to accomplish this goal. Students in the control group were given a list of new English words along with their Persian definitions, and they were expected to memorize them using the contextualization technique. The new English terms were used in sentences in a different group (using Frayer Model technique). The study's results revealed a considerable disparity between the two groups. The experimental group far much better on the vocabulary test than the control group. The experimental group also had a better performance on a sentence making test than the control group though the differences were significant. The results demonstrated that Frayer Model is more effective in enhancing students in vocabulary development.

Kustati and Priscilla (2014) in their investigation found that "Enhancing Vocabulary Achievement through Frayer Model: A Strategic Approach to Teaching Vocabulary" Frayer Model strategy had new knowledge of new words of the students who were taught a vocabulary by using a dictionary. This strategy

increased students' vocabulary achievement. So, the English teacher suggested applying this strategy in teaching vocabulary.

Turner, Russell & Waters., (2013) in their investigation found that "Developing Concepts and Building Vocabulary Through Frayer Model: An Analytical Approach." The Frayer Model develops concepts and builds vocabulary. It urges learners to describe, analyze and synthesize concepts. Consequently the Frayer Model helps the learners to effectively grasp the meaning and deeply understand new words.

Urquhart.,&., Frazee (2012) revealed that "Enhancing Conceptual Understanding and Vocabulary Development Through Frayer Model" the word-categorization activity allows students to develop their understanding of concepts by studying the concept in a relational manner. So,the Frayer Model allows students to establish relationships between words learned during reading. Frayer Model strategy time and effort from both teachers and students. It enables teachers to access their students' comprehension as it helps students to comprehend concepts.

Wiese., (2012) investigated the current vocabulary strategy used with a test group of fifty-two ninth grade students from an upper Midwestern school to determine which of the two vocabulary strategies, verbal or visual word association or the FRAYER Model, was most effective at helping students retain new words in their long-term memory. After teaching and applying the FRAYER Model method, the researcher analyzed the data. According to the study's findings,

students who employed the FRAYER Model technique were able to more quickly commit vocabulary words to their long-term memory than those who employed the verbal and visual word association strategy.

CRITICAL REVIEW

The investigator reviewed 32 studies from various sources related to Frayer Model for teaching English vocabulary. The related studies also revealed that Frayer Model based instruction are very useful in recalling the information and are effective in teaching learning process at all levels of students. This model adopted for the studies was an experimental method. The review of related literature helped the investigator to have a proper perspectives of the problem selected for the present investigation. After careful reviews of all the studies, it was found that not many research studies have been conducted to examine the Effectiveness of Frayer Model Based Instruction on English Vocabulary a Primary School Students and this study would be beneficial to explore the effectiveness of learning using Frayer Model.

Chapter– III

METHODOLOGY

Educational research involves application of scientific methods to the solution of educational problems. The ultimate aim of educational research is to provide knowledge helps the conductor to achieve his goal by the most effective method. In general it is termed as Research Methodology. According to Creswel, (2014) "Research is the systematic, rigorous investigation of a subject or problem in order to discover new facts, reach new conclusions, or develop new theories. It involves the collection, analysis, and interpretation of data using established scientific methods to contribute to knowledge in a particular field."

According to (John .W. Best 2005), "Research seeks to systematize knowledge in the field of education, its final being a comprehensive theory that orders, unifies and explains not only educational data but also subordinate theories, laws and generalizations within the field, educators could work systematically to improve educational methods" John. W. Best (2005)

According to Best and Kahn (2006), Research methodology is the methodical process of organizing, carrying out, and evaluating research. It includes guidelines, protocols, and methods for gathering and analyzing data in order to guarantee correctness and dependability. A good technique helps solve problems and progress knowledge by guaranteeing objectivity, correctness, and relevance in scientific investigation.

Saravanavel., (2013) stated that research Methodology is the description, explanation, identification and justification of various methods of the conducting research. Research Methodology involves by systematic procedure by which researcher begins from the initial step of identifying the problem to the final conclusion. Methodology takes the role of carrying research in the scientific manner. It is incorporated with procedures techniques and tools by which the research problem is handled. Hence the success depends on the suitability of the method adopted of the study. For this study, the investigation has chosen the experimental method.

Research methodology involves various activities. They include problem identification, literature research, hypothesis development, data collection, data analysis, result interpretation, and conclusion. It is a method for solving research problems systematically. Methodology is just as vital to any kind of research as the validity and reliability of the results.

The methodology of the present investigation has been presented under two sections. **Section A** deals with the development and validation of the tools and **Section B** with the details of research design.

Section – A

This section deals with development of the tools.

1. Development of Lesson Transcript

2. Development of Vocabulary Test in English

Tool:1

DEVELOPMENT OF LESSON TRANSCRIPTS

Lesson Transcript was prepared by the investigator based on systematic procedure, to learn the subject matter based on Frayer Model and to know the effects of Frayer Model based instructional method on the vocabulary test in English for the students of class V. Initially the investigator analyzed the need for developing the instructional design. The ability to communicate in English is crucial for survival in today's world. Additionally, the educational system makes every effort to teach students English. But the students face some difficulties memorizing the new English vocabulary. The Frayer Model based instructional techniques is the appropriate tool for remembering and developing English Vocabulary for the Primary School Students.

The development of instructional design involves the structure of the package. The content for the vocabulary development was identified and the new vocabularies were selected from the class V English text book. All the vocabularies were selected after having thorough discussion according to the English language teachers with the guidance of research supervisor. Frayer Model based instructional lessons were prepared for each topic of selected vocabulary from V class English textbook. This phase of the package design was quite important. After selecting the vocabulary, the investigator prepared Frayer Model based instructional materials for each vocabulary in English for the students of class V.

Development of Instructional Design includes the following steps

ATTENDING TO THE MATERIAL

↓

DEVELOPING CONNECTIONS

↓

EXPANDING FRAYER MODEL

↓

PRACTICING RECALL
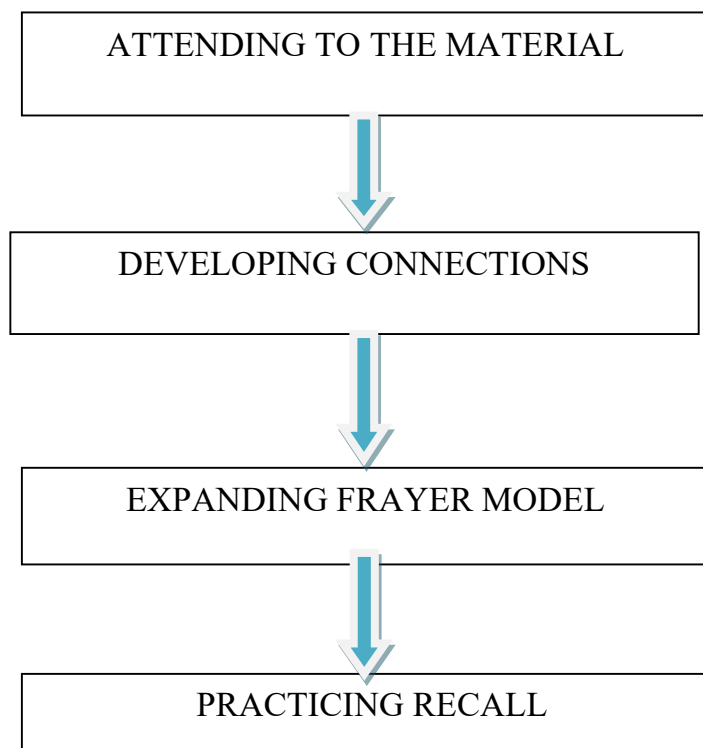
The above steps are selected for the preparation of instructional design by the investigator based on the rules and principles of Frayer Model suggested by Dorothy Frayer (1969).

The details of the step for preparing instructional design are given below

STEP-1 ⟩ ***Attending to the Material***
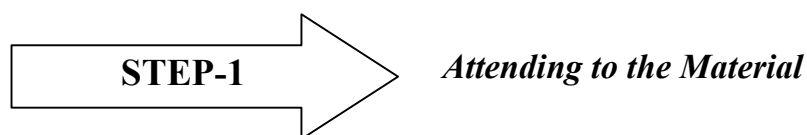
In this step, the investigator selected the vocabularies from class V English textbook and used the Frayer Model technique for teaching English Vocabulary for class V students.

STEP-2 ⟩ ***Developing Connections with Frayer Model***

The investigator analysed the instructional material familiar to the students by making the selected concept of using Frayer Model with Definition, Characteristics, Examples and Non examples.

STEP-3 *Expanding Frayer Model*
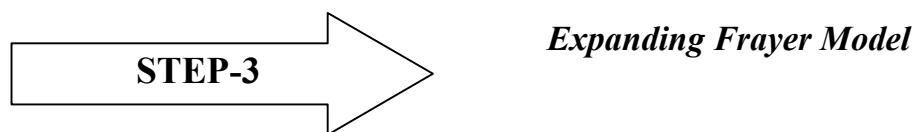
Techniques of exaggeration and ridiculous association in the instructional materials were used by the investigator for teaching

STEP -4 *Practicing Recall*
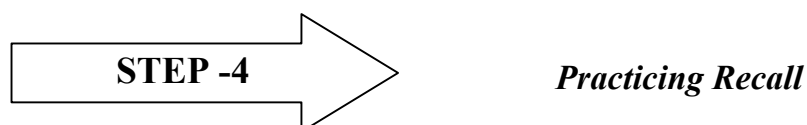
The step is meant to practice recalling the instructional material until completely learned by all the students during the experimental treatment.

The instructional sequence meant for teaching English Vocabulary using Frayer Model was adopted based on the above mentioned steps. Hence the experimental teaching using Frayer Model based Instructional technique were started with phase -1as given below.

PHASE-1

Situation-1

Introducing New Vocabularies
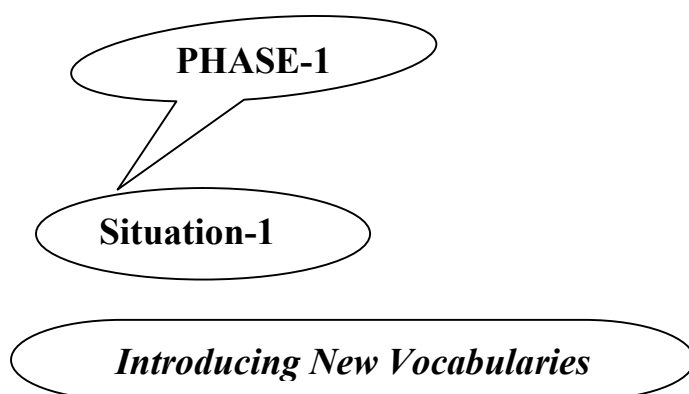
In the first step the investigator checked the previous knowledge of the students by asking related question. After that the teacher introduces the new English

vocabularies to the students before teaching.   The teacher reads the vocabularies loudly with good pronunciation and writes on the black board.

Situation-2

Note the New Vocabularies

The teacher asks the student to note the new vocabularies from the blackboard or power point presentation.   With the help of blackboard broad or power point presentation the teachers makes the students to read the vocabularies silently.

Situation-3

Using   Frayer Model

The teachers starts to teach new vocabularies with the help of Frayer Model based Instructional Techniques.   The teacher uses Frayer Model Technique like the concept of Definition, Characteristics, Examples and Non- Examples.   Teaching Frayer Model help the teacher to handle the class effectively.

Situation-4

Developing Connections with Frayer

The teacher teaches new English vocabularies by making the use of Frayer Model based teaching technique using Lesson Transcripts. By using Frayer Model based instruction the students can create long term memory of the English vocabulary and develops interest in learning English.

Situation-5

Expanding Frayer Model

Frayer Model exaggeration and ridiculous association are used by the teacher. The teacher   explains the concept of the word with Definition, Characteristics, Examples, Non Examples. Then it is revised by the teacher in the classroom by that the student can remember the vocabulary with the help of Frayer Model technique.

Situation-6

Practicing Recall

After teaching, using Frayer Model based instruction the teacher gives the review questions to the students. The teacher recalls the instructional material until it is completely learned by all the students in the classroom.

Lesson Transcript for Developing English Vocabularies is illustrated below

Lesson Transcript

Name of the Teacher   : Adlin Monisha .M

Name of the School   : Nursery Primary School Yettacode

Subject   : English

Class   : V

Topic   : The New Start

Duration   : 45 Minutes

Date   :

Number of Students   : 44

Learning Outcomes

.

- ➢ Recognizes new vocabularies Write, Journal, Experience , Art, Earth.
- ➢ Learns new English Vocabularies
- ➢ Developing interest in learning vocabularies
- ➢ Infers Definition, Characteristics, Examples, Non-examples and concept of Write, Journal, Experience , Art, Earth.
- ➢ Recalls vocabularies of, Write, Journal, Experience, Art, Earth.
- ➢ Enjoy the English Vocabulary class

Content Analyses:

The teacher selects the topic, analyses the content and identifies the following vocabularies, write, journal, experience, art, earth.

. Frayer Model Chart

a. Definition

b. Characteristics

c. Example

d. Non- Example

e. Concept

Definition	Characteristics
Examples	Non-Examples

(**Concept** shown in center oval)
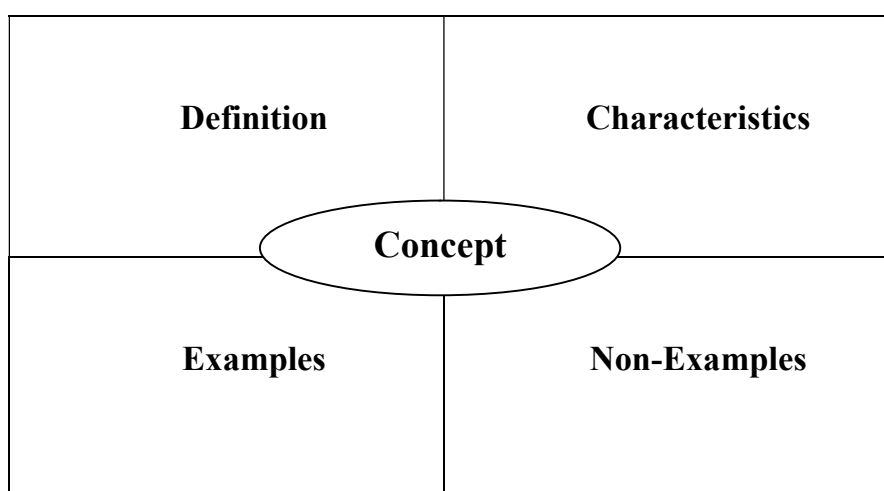
Procedure

Step:1

Introduction of New Vocabularies

The teacher checks the learning readiness and previous knowledge of students by asking the following questions.

What is the examples of Write?

What is the non examples of Write?

Then the teacher introduces the following new English vocabularies to the students.

a) Write

b) Journal

      c) Experience

      d) Art

      e) Earth

The teacher reads and identifies vocabularies loudly with definition, characteristics, example, Non examples and concept.

Step:2

Note the New Vocabularies

The teacher asks the students to note the new vocabularies from the chart presented with the help of the chart or blackboard, the teacher makes the students to read the vocabularies silently.

Step:3

Using Frayer Model

The teacher using the Frayer Model like images, drawn in the blackboard and teaching aids to teach vocabularies, write, journal, experience, art, Earth.

Step:4

Following Frayer Model Vocabularies

The teacher teaches new English vocabularies write, journal, experience, art, Earth by using the images of Frayer Model. The following vocabularies are taught by the teacher.

a) **Write**

Definition	Characteristics
Write means to form letters, words, or symbols on a surface, typically using a pen, pencil, or keyboard, to communicate thoughts, information, or idea	• Symbolic Representation • Communication Tool
Examples • Writing Essay • Writing Novel	**Non Examples** • Reading • Dancing

Write

b) **Journal**

Definition	Characteristics
A **journal** is a record of personal experiences, thoughts, or events, written regularly, or a publication that contains articles on a specific subject.	• Regular Entries • Personal or Professional
Examples • Travel Journal • Scientific Journal	**Non- Examples** • Novel • Newspaper

Journal

c) **Experience**

Definition	Characteristics
Experience is the knowledge, skill, understanding gained through direct involvement in events, activities, or personal encounters over time.	• Personal • Learning based

Experience

Examples	Non Examples
• Work Experience • Life experience	• Object • Knowledge

d) **Art**

Definition	Characteristics
Art is the expression of human creativity and imagination through various forms such as painting, music, literature, sculpture, and performance, often intended to evoke emotions or convey ideas.	• Creativity • Expression

Art

Examples	Non –Examples
• Sculpture • Architecture	• Music • Dance

e) **Earth**

Definitions	Characteristics
Earth is the third planet from the Sun, a terrestrial planet that Supports life, consisting of land, water, and atmosphere. It is also used to refer to soil or ground.	• Atmosphere • Support life

Earth

Examples	Non-Examples
• Planet Earth • Soil Earth	• Object • Institution

Step: 5

Expanding Frayer Model

The teacher expands the Frayer Model images to the students and clearly explains the new vocabularies and its definition, characteristics , examples, non examples and concept.Then the new vocabularies are revised by the teacher. The students can remember the vocabularies with the help of the image Frayer Model.

a) Write	Frayer Model
b) Journal	Frayer Model
c) Experience	Frayer Model
d) Art	Frayer Model
e) Earth	Frayer Model

Step : 6

Practicing Recall

After teaching, finally the teacher gives the review questions to the students. The teacher recalls the materials until it is completely learn by the students.

Follow up:

1. Frame the examples of your own

    a. Art

    b. Earth

2.Frame any one characteristics of your own

    a. Art

    b. Earth

The same steps and procedure were followed for experimental teaching for all the selected English Vocabularies lesson by using Frayer Model based instruction. (The lesson transcript on Frayer Models prepared by the investigator on the selected vocabularies is given as **Appendix-A)**

Tool : 2

DEVELOPMENT OF VOCABULARY TEST IN ENGLISH CONSTRUCTION AND VALIDITY OF THE TOOL ON VOCABULARY TEST

The draft form of the Vocabulary test in English was prepared by the investigator with the help of the supervisor. It was based on the Class V State board syllabus in English textbook. The test for four sections each carries one mark. **Section A** consists of Choose the correct answer, Find the appropriate synonyms, Find the appropriate antonyms. **Section -B** consist of rearranging the words to form a complete sentence, prefix and suffix and singular and plural. **Section -C** consist of Clipped words, find new words and fill up the missing letters. **Section-D** Read the passage and write the answers. Whether the statement is true or false. The time allotted for the test was 45 minutes. The mark allotted for the test was hundred marks in total. (The achievement test in English Vocabulary (draft) prepared by the investigator is given as **Appendix B**)

Vocabulary Test in English language was prepared by M. Adlin Monisha and Dr. K. Gireesh Kumar (guide) aimed to measure the Vocabulary test to develop the class V students English Vocabulary.

The following are the steps for the construction of achievement test

1. Planning of the test

2. Writing items

3. Item Editing

4. Arrangement of items

5. Preliminary try-out

6. Final Tryout

7. Scoring

8. Item Analysis

9. Item Selection

i) Planning of the test

Vocabulary development test was conducted for the students of class V. While planning the test, importance was given to the content of the English textbook of class V. The investigator planned to prepare different forms of vocabulary tests, namely, Choose the correct answer, Find the appropriate synonyms, Find the appropriate antonyms, rearranging the words to form a complete sentence, prefix and suffix and singular and plural, Clipped words, find new words and fill up the missing letters, read the passage and write the answers whether the statement is true or false. Each form has ten one word items and the total makes 100. Dissimilar forms of objective type questions were included in the test of vocabulary development. The time duration of the test was 45 minutes

ii) Item Writing

Items of vocabulary were written after having a thorough study of related literature available on various vocabulary tests in English. The investigator collected materials and constructed a large number of questions in different forms of preparing a vocabulary test in English. The items in the test were based on English syllabus. The different forms of the test are, choose the correct answer,

synonyms, antonyms. Rearranging the sentences, prefix, suffix, singular plural, Clipped words, find new words in the given words, missing letters and read the passage and write the answer whether the statement is true or false The respondent must answer the items according to the instruction given. The prepared items are given for item editing.

iii) Item Editing:

It needs care and thorough knowledge of the subjects. Based on the suggestions, the puzzling and irrelevant items and rewritten in simple and meaningful language. In item editing the investigator checked the relevance of items included in the tool and then checked the clarity of learning vocabulary items. After editing by the investigator, the test was given to five experts including teacher educators and English teachers who taught English subject.

iv) Arrangement of Items;

All the items were arranged in a coherent order to increase the interest of the respondent and maintain attention for responding clearly.

vi) Draft of the test

The draft vocabulary test was prepared by printing the items with the career of marks that consists of 100 questions. The questions were printed in English. Necessary instructions for the respondent were also printed in the draft form of tool. A separate response sheet was also be constructed and printed along with the questionnaire.

v) Preliminary Tryout

To determine the test strength and limitations, a preliminary tryout was done and the rough estimate of the time limit for replying to the items was made along with difficulties in each items. This time is the frame for replying to the questions that were noted. In this stage the supervisor assisted the investigator in revising certain puzzling and uncertain items.

vii) Pilot Study

The investigator conducted the pilot study for the draft form of the English Vocabulary Test. It was based on the class V State board syllabus in the English Textbook. The investigator planned to prepare different forms of vocabulary test namely, Choose the correct answer, find the appropriate synonyms, appropriate Antonyms, rearranging the words to form a complete sentence, prefix and suffix, singular and plural, clipped words, find new words fill ups the missing letters. Read the passage and write the answer, whether the statement is true or false. Each form has ten one word item and the test consist of 100 items. The investigator visited various Primary School in the Kanniya Kumari District and after seeking permission from head of the school, the investigator met the students of class V and gave the brief self introduction and purpose of conducting the test. The vocabulary test was administered individually to the class V students after the clear instruction regarding the nature of the items, mode of choosing the solution and time allotted for the test. After making the responses, the investigator collected the filled in answer script from the students. The data was selected from

the sample of 100 class V students by using simple random sampling technique for the purpose of the items to frame the final draft.

viii) Scoring

The collected responses sheet was scored with the help of a key prepared by the investigator. The vocabulary test in English was an objective type question and score was one mark for correct answer and wrong responses zero mark for given. Scoring key enclosed as appendix.

ix) Item Analysis

Item analysis is a process in which the students' responses to individual test items are assessed in order to identify the quality of these items for the whole test. For item analysis particular method can be used only by the investigator. The test scored using the scoring key prepared by the investigator and the scores was tabulated. The investigator used the method of difficulty Index and Discriminative power method of Ebel test for item analysis. For this answer sheet of the respondents were arranged in the descending order from the top are upper score to lower score. The top 27% of the answer script from the top was considered as ' upper group' (RH) and 27% of the answer script from the bottom or lower considered as 'low group' (RL). The difficulty index and the discriminative power of the each item can be calculated by using the formula,

Difficulty Index =RH +RL/2N

Discriminative power= RH—RL /N, where

RH=Number of rightly answer in upper group

RL=Number of rightly answer in lowest group

N=Total number of students.

x) Item Selection

Item selection means testing the items for selection in which the investigator select the items for testing from the original responses of the students and then based on the difficulty index and discriminative power the items can be selected.The investigator analyzed the items from the collected responses of the student. After item analysis the investigator select the items on the basis of values obtained in both difficulty index and discriminative power. If the difficulty index has the value lies in between 0.3 to 0.6 along with the discriminative power, DP >0.40, then that particular item can be selected. High discriminating power and medium difficulty scores are selected for the final tool.

ITEM SELECTED IN THE VOCABULARY TEST

Item Selection

Table 3.1

Details of items selected for the vocabulary test in English

Item No	Difficulty Index	Discriminative Power	Item Selected
1	0.703	0.296	_
2	0.492	0.351*	Selected 1
3	0.361	0.314*	Selected 2
4	0.472	0.314*	Selected 3

5	0.592	0.481*	Selected 4
6	0.425	0.333*	Selected 5
7	0.621	0.388*	Selected 6
8	0.462	0.333*	Selected 7
9	0.685	0.259	_
10	0.407	0.148	_
11	0.694	0.203	_
12	0.574	0.481*	Selected 8
13	0.555	0.555*	Selected 9
14	0.601	0.685*	Selected 10
15	0.574	0.37*	Selected 11
16	0.314	0.148	_
17	0.601	0.722*	Selected 12
18	0.537	0.481*	Selected 13
19	0.462	0.481*	Selected 14
20	0.491	0.462*	Selected 15
21	0.712	0.537	_
22	0.518	0.518*	Selected 16
23	0.657	0.462	_
24	0.759	0.481	_
25	0.666	0.629	_
26	0.657	0.574	_
27	0.527	0.5*	Selected 17

28	0.666	0.481	_
29	0.791	0.5	_
30	0.694	0.5	_
31	0.240	0.185	_
32	0.027	0.055	_
33	0	0	_
34	0	0	_
35	0	0	_
36	0	0	_
37	0	0	_
38	0	0	_
39	0	0	_
40	0	0	_
41	0.796	0.333	_
42	0.759	0.407	_
43	0.333	0.259	_
44	0.324	0.203	_
45	0.537	0.555*	Selected 18
46	0.287	0.351*	Selected 19
47	0.509	0.537*	Selected 20
48	0.388	0.444*	Selected 21
49	0.416	0.277	_
50	0.333	0.333*	Selected 22

51	0.879	0.203	_
52	0.824	0.277	_
53	0.833	0.296	_
54	0.555	0.371*	Selected 23
55	0.824	0.277	_
56	0.629	0.203	_
57	0.361	0.314*	Selected 24
58	0.491	0.537*	Selected 25
59	0.777	0.371	_
60	0.777	0.333	_
61	0.741	0.184	_
62	0.759	0.296	_
63	0.777	0.371	_
64	0.407	0.037	_
65	0.259	0.111	_
66	0.648	0.371	_
67	0.666	0.444	_
68	0.694	0.611	_
69	0.685	0.555	_
70	0.624	0.648	_
71	0.324	0.537*	Selected 26
72	0.314	0.592*	Selected 27
73	0.342	0.685*	Selected 28

74	0.185	0.371	_
75	0.157	0.314	_
76	0.157	0.314	_
77	0.268	0.537*	Selected 29
78	0.388	0.777*	Selected 30
79	0.287	0.574*	Selected 31
80	0.259	0.518*	Selected 32
81	0.388	0.222	_
82	0.342	0.277	_
83	0.324	0.5*	Selected 33
84	0.462	0.74*	Selected 34
85	0.203	0.222	_
86	0.342	0.5*	Selected 35
87	0	0	_
88	0.453	0.722*	Selected 36
89	0.296	0.481*	Selected 37
90	0.259	0.444*	Selected 38
91	0.203	0.407*	Selected 39
92	0.287	0.5*	Selected 40
93	0.194	0.388	_
94	0.166	0.259	_
95	0.101	0.203	_
96	0.453	0.055	_

97	0.314	0.074	_
98	0.324	0.166	_
99	0.37	0.074	_
100	0.314	0.074	_

Note: *represented selected items (Total=40)

x) Final Test

Out of 100 items in the Final tryout, 40 items were selected for the final test.   The final format of the test includes all the selected items arranged inorder with necessary instructions.   The response sheet for the tool also presents separately.

Establishing Validity and Reliability

Reliability and validity are essential to the effectiveness of any data gathering procedure.

Reliability

Reliability is the accuracy of a measuring instrument. According to Stangor (2004). The reliability of a measure refers to the extent to which it is free from random errors. One direct way to determine the reliability of a measured variable is to measure it more than once. The reliability of the scale can be measured in different ways, such as the test-retest method and spilt half method. In the present study, the reliability coefficient was founded by a spilt half method. It measures the degree of homogeneity of the item in a scale. For calculated of spilt half reliability of a scale, the score obtained by a sample of 100 students are used. The

score of odd items and even items were taken separately and correlation was calculated. The coefficient of correlation indicates the reliability of the half scale. The correlation coefficient of the whole scale is then estimated by using Spearman Prophecy formula. The reliability of the coefficient was founded to be 0.78201.

Validity

Validity of the test answers the question what a test measure and how well it measures it whatever it designed to measure for. Best (1978) clarifies, " A test possesses validity to the extent that it measures what it claims to measure".

SECTION- B

THE RESEARCH DESIGN

PLAN AND PROCEDURE

The various aspects of the followed in the present investigation are discussed under the following heads. Method adopted, research design, variables of the study, experimental procedure, tool used, administration of tools and statistical techniques used.

a) Method Adopted

The present study is an attempt to determine the effectiveness of Frayer Model for enhancing vocabulary in English of class V students. Experimental method of research was used for the study.

b) Experimental Method Design Selected:

In order to conduct an experimental study, an appropriate experimental design has be selected. An experimental design is a plan or strategy of a

investigation conceived in order to solve the research problem. According to Best and Khan (1999) an experimental design is the part of the procedure that enables the researchers to test the hypothesis by searching valid conclusion about relationship between independent and dependent variables.

An experimental design can be selected based on factors like the nature and purpose of the experiment, the type of the variables to be manipulated, the nature of the data, the facilities or conditions available for conducting the experiment and the competence of the experiment. Convenience sampling method was use of the present study. Pre-test, post test, non-equivalent parallel group design was used for the study. It is administratively difficult for the investigator to arrange equivalent groups by managing students as it may disturb the daily routine class work. These difficulties can be overcome by conducting the experimental in normal class groupwhich are normally non-equivalent groups with the help of some statistical technique. It was thus decided by the investigator to conduct the experiment in non-equated classroom groups. The design that was adopted for the present study was the pre-test, post-test, non-equivalent parallel group design.

The characteristics of the Experimental Design

i. The effects of the treatment are judged by studying difference between the pre-test and post-test scores.

ii. As there is no control group in this design, all the work concerns the experimental group only.

Pre-test, Post test, Non-equivalent group Design
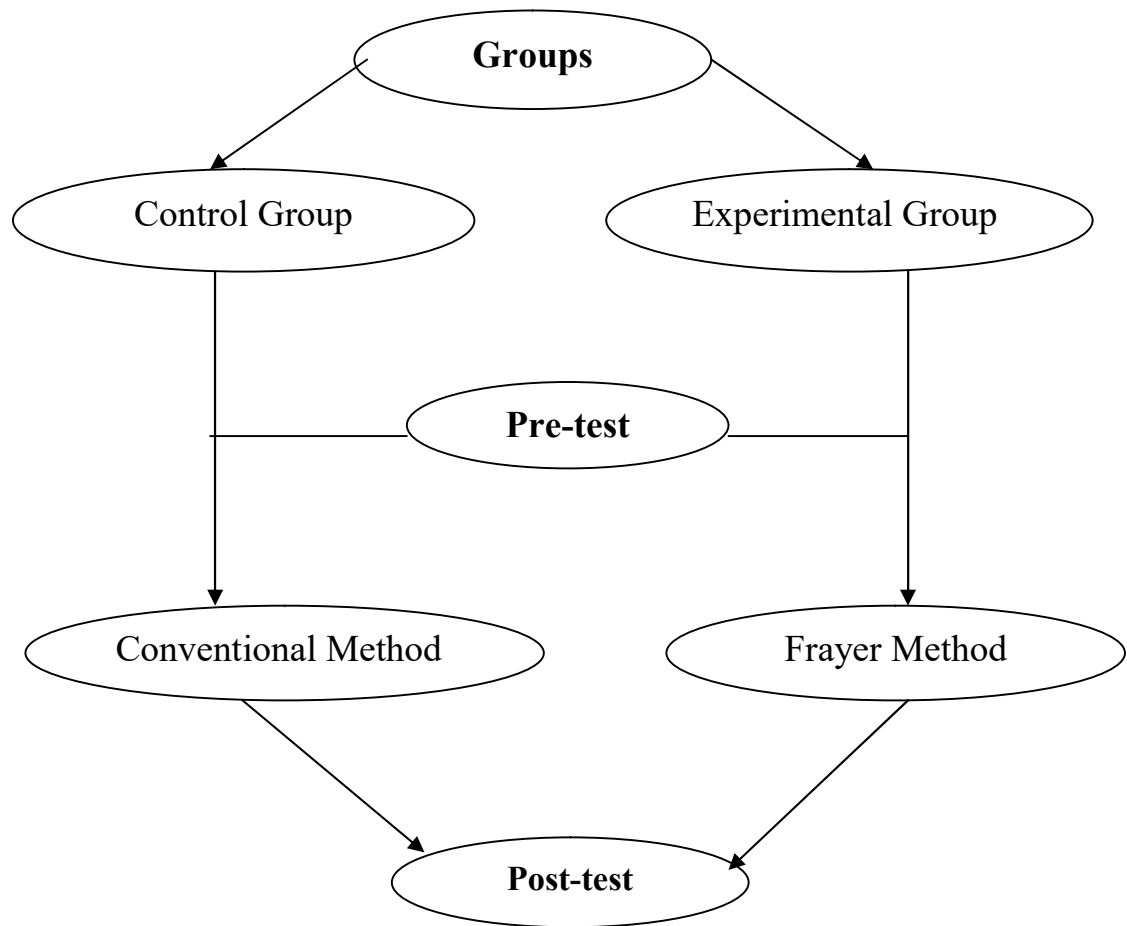
VARIABLES OF THE STUDY:

Variables can be referred to as the condition of characteristics manipulated, controlled or observed by an experimenter (2010). If the hypothesis and its deduced consequences are well conceive two factors can be precisely identified they are,

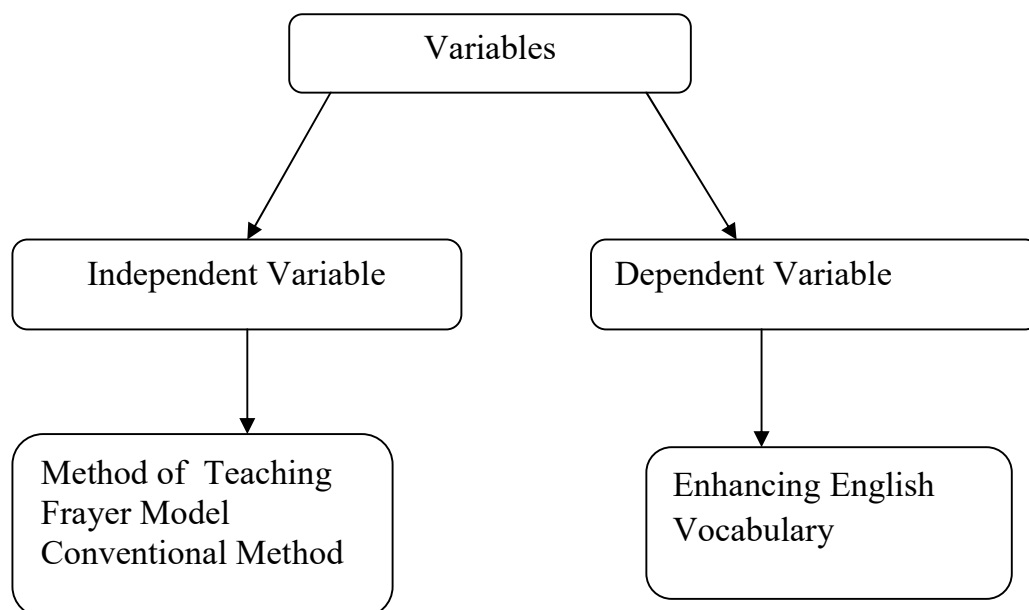a) Independent Variable

b) Dependent Variable

i)Independent Variable

The manipulated variable in the process of experimentation is known as independent variable. It is subjected to the direct control of the experimenter who can cause it to vary in any desire direction.

In this study method of teaching is the independent variable. The experimental group was treated with Frayer Model of teaching and Control group was not administrated with any intervention programme. The control group was treated by conventional method of teaching. These are the two strategies adopted by the investigator for the independent variable.

ii) Dependent variable

The basis on the effectiveness of experimental or independent variable is studied is known as the dependent variable.

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                        ┌──────────────┐
                        │  Variables   │
                        └──────────────┘
                         ╱            ╲
          ┌─────────────────────┐   ┌─────────────────────┐
          │ Independent Variable│   │  Dependent Variable │
          └─────────────────────┘   └─────────────────────┘
                     │                          │
       ┌─────────────────────┐     ┌─────────────────────┐
       │ Method of  Teaching │     │  Enhancing English  │
       │ Frayer Model        │     │  Vocabulary         │
       │ Conventional Method │     │                     │
       └─────────────────────┘     └─────────────────────┘
```

EXPERIMENTAL PROCEDURE

The steps involved in the experimental procedure are detailed below

i)Administration of Pre- Test

Vocabulary test in English based on the selected topic from class V English textbook.

ii. Experimentation

Treatment with Frayer Model (experimental group)

Conventional Method (control group)

iii. Administration of post test

Vocabulary test in English based on the selected topic from class V English textbook.

Administration of Pre-test

Prior to the experiment the investigator conducted a pre-test to identify the prior knowledge bith the experimental and control group students. The scores obtained for the pre-test from the students are subjected to statistical analysis.

Experimentation - After the pre-test was conducted on experimental and control group, the experiment group was treated by using the instructional design of Frayer Model and control group was treated by using conventional method.

a) Experimental group - Administration of Frayer Model

The investigator selected Yettacode Nursery Primary School Veyanoor for conducting the study. The experimental group consisted of 44 students.

The experimental treatment was conducted for 16 days after getting prior consent of the school authority. Experimental group was taught through Frayer Model based instruction. For this, the investigator prepared instructional design of Frayer Model for the selected vocabularies.

The investigator prepared the instructional design base on Frayer Model for developing English Vocabulary for the students of class V.

b) Control Group - Conventional Method

The control group was taught with the conventional method which was routinely followed in the schools. The experimental group consist of 44 studentsof class V.

Administration of Post-test

After completing 16 days schedule for the experimental treatment, the post test was administrated to both the students of experimental and control groups. It was aimed to access the effect of the treatment shall be better in post-test compared to the pre-test. The same achievement test was used for the pre-test was also administrated for the post-test after experimental treatment.

THE SELECTED FOR THE STUDY

A sample is a small proportion of a population selected for the observation and analysis. The careful observation of the sample enables the observer to draw inference about the population from which it was selected the following.

a) Selection of the Class

The investigator selected class V students of Yettacode Nursery Primary School Veyanoor for conducting the experimental study.

b) Selection of group

The study was conducted on 85 students of class V from Yettacode Primary Nursery School Veyanoor. Two divisions from the class V were selected for experiment one as experimental group and other control group. The experimental group was taught through Frayer Model based instruction and control group was taught through conventional method routinely followed in the school.

STATISTICAL TECHNIQUES USED

The following Statistical techniques were used for analyzing the data

t-test (test of significance)

ANCOVA (Analysis of co-variance)

Test of significance (t-test)

The t-test was used to compare the mean scores obtained by two groups on a single variable (Garrett 2004). It is used to find out the significant level of difference between two groups of population. From the mean and the standard deviation, t values can be calculated. If the obtained t value is 2.58 and above, then level of significance is at 0.01. If the t value is between 1.96 and 2.58 significant levels and if the t value is below 1.96 the difference is not significant.

$$t = \frac{m_1 \sim m_2}{\sqrt{\dfrac{\sigma_1^2}{N_1} - \dfrac{\sigma_2^2}{N_2}}}$$

Where, m1 = mean of the first sample

m2 = mean of the second sample

σ1 =standard deviation of first sample

σ2 =standard deviation of second sample

N1 =Total number of frequency

N2 = Total number of frequency of second sample

ANCOVA

Garret (1981) "stated that through co-varaiance of analysis, one is able to effect adjustment in final of terminal scores which will allow difference in some initial variable. Analysis of covariance represents an extension of the method of analysis of variance to allow a correlation between initial and final scores".

Chapter-IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the analysis and interpretation of the collected data. Analyzing data involves looking at the tabulated information to identify underlying truths or meanings. For interpretational purposes, it involves dissecting current complicated aspects into their most basic components and rearranging them. Rummuel (2008) detailed Data analysis and interpretation entail the researcher's subjective responses and wants as well as the objective information at his disposal in order to extract the data's underlying meaning in relation to the problem.

It is necessary to critically evaluate one analysis in light of all the constraints that were present at the time of data collection in order to interpret the data that has been examined. After the data collection, information must be processed, examined, and evaluated in conformity with the strategy that was established before the research was planned.

The major objective of this investigation was to test the effectiveness of Frayer Model based instruction in enhancing vocabulary in English. This makes it clear that an experimental method was adopted for the present study by the investigator.

Two parallel non equivalent groups one group experimental consisting 44 students and another group control group consisting of 41 students were selected

for the experiment. A pre test was conducted proceeding to the experimental study and then the group was subjected to Frayer Model of teaching.

Instructional materials helped to enhance the vocabulary while no intervention program was given to the control group. After the experiment a post test was administered to both the groups. The scores that were obtained by the students in the pre-test and post-test recorded and analyzed using relevant statistical techniques.

In this study the analysis was done using the statistical techniques like t-test and ANCOVA. The analysis of data was computed and the result was done through the SPASS software. Based on the pre-established hypothesis, the results were carefully interpreted. The data belonging to the Experimental and Control Group were analysed through the following statistical tchniques. The following is the presentation of the data analysis and the interpretation of the findings.

1. **Test of Significance:** The study employed a test of significance for differences in means to determine whether the experimental group's and the control group's samples' mean achievement scores differed.

2. **Analysis of Co- variance** : In order to effect the adjustment and calculate the terminal score to ascertain the relative superiority of the approaches used, the data was analyzed using the Covariance analysis.

The stated below provide Details of the Analysis.

   I.   Performance of students in Experimental and Control groups before Experimental Treatment.

II. Performance of students in Experimental and Control groups after Experimental Treatment.

III. Effectiveness of Frayer Model Based Instruction on Vocabulary test in English of the Experimental Group

IV. Adjusted Post Test Analysis

I. PERFORMANCE OF STUDENTS IN EXPERIMENTAL AND CONTROL GROUPS BEFORE EXPERIMENTAL TREATMENT

Before the Experiment

The pre test was conducted to both the experimental and control groups and the pre -test scores obtained by the students of both experimental and control the groups were tabulated.

For the obtained pre-test scores of the control and experimental group, means standard deviation and t-test were calculated. The values obtained for various statistical calculations are given as follows.

Comparison of Vocabulary score of Frayer Model based Instruction and Conventional Method for both Experimental and Control groups at Pre-Test Level.

Table 4.1

Comparison of Vocabulary score under Frayer Model Experimental and Conventional method at Pre Test Level for Total sample

Group	Mean	SD	N	Mean Difference	t	p	Level of Sig
Experimental Group	9.34	2.60	44				
				0.64	1.096	0.276	NS
Control Group	9.98	2.70	40				

From the above table 4.1 it is clear that p> 0.05 is not significant at any level. Hence the null hypothesis " there exists a no significant difference between the experimental group and control groups with regard to pre -test mean score in vocabulary test" is accepted. It means both experimental and control group do not differ significantly in the mean score in English vocabulary achievement test. So, it is inferred that before the experimental treatment both the two groups were similar in their mean scores on their vocabulary test in English Subject.

II. PERFORMANCE OF STUDENTS IN EXPERIMENTAL AND CONTROL GROUP AFTER EXPERIMENTAL TREATMENT

After the experimental treatment

The post test was conducted to both the experimental and control groups and the post -test scores obtained by the students of both experimental and control the groups were tabulated.

For the obtained post-test scores of the control and experimental group, means standard deviation and t-test were calculated. The values obtained for various statistical calculations are given as follows.

2. Comparison of Vocabulary score of Frayer Model based Instruction and Conventional Method English vocabulary at post test level

Table 4.2

Comparison of Vocabulary score under Frayer Model based Instruction and Conventional Method at Post Test Level Total Sample

Group	Mean	SD	N	Mean Difference	t	p	Level of Sig
Experimental Group	37.16	1.31	44				
				17.66	44.229	0.000	0.01
Control Group	19.50	2.26	40				

From the above table 4.2 it is clear that p< 0.01 is significant at 0.01 levels. Hence the null hypothesis "there exist significant difference between experimental and control group with regard to post test mean score in English vocabulary test is rejected. It means that the tests score in English vocabulary test. Are greater for the students in the experimental group than the control group. Therefore it is inferred that Frayer model treatment is effective in enhancing English vocabulary test of class V students.

III. EFFECTIVENESS OF FRAYER MODEL BASED INSTRUCTION ON VOCABULARY TEST IN ENGLISH OF THE EXPERIMENTAL GROUP

Table 4.3

Effectiveness of Frayer Model based Instruction on Vocabulary Test for total sample

	Mean	SD	N	Mean Difference	Paired t	Sig.	Level of Sig
Pre	9.34	2.60	44	27.82	66.35	0.000	0.01
Post	37.16	1.31	44				

From the above table 4.3 it is clear that p<0.01 is significant at 0.01 levels. Hence the null hypothesis " there exists no significant difference in Frayer Model English vocabulary test" is rejected. Hence it is concluded that a Frayer Model is effective in learning English compared to that of the Conventional Method in learns English Vocabulary.

IV. ANALYSIS OF ADJUSTED POST-TEST

Mean, sum of the squares and F values of the adjusted post-test scores in English Vocabulary test of the experimental and control groups.

Comparison of vocabulary under Frayer Model based Instruction and Conventional for total sample

Table 4.4

	Mean		Sources	Sum of squares	df	Mean square	F	p	Level of Sig
	Expl	Cont							
Pre-test (X)	9.34	9.98	Between	8.42	1	8.42			
			Within	574.86	82	7.01	1.202	0.276	*NS*
			Total	583.29	83				
Post-test (y)	37.16	19.50	Between	6533.8	1	6533.8			*Sig.*
			Within	273.89	82	3.34	1956.2	0.000	*at*
			Total	6807.7	83				*0.01 level*
Adjusted Post-test (Y)(X)	37.26	19.40	Between	6584.3	1	6584.3			*Sig.*
			Within	218.08	81	3.34	2445.6	0.000	*at*
			Total	6807.7	82				*0.01 level*

From the above table it is clear that fy.x is 2445.6, p<0.01 and therefore it is significant at 0.01 levels. It indicates that adjusted post test mean scores of the students in experimental and control groups differ significantly after using the Frayer Model of teaching. Hence the null hypothesis there exist no significant difference between the adjusted post test score in English Vocabulary Test of the experimental and control group is rejected. So it can be concluded that the Frayer model of teaching is significantly effective in enhancing English vocabulary for the students of class V.

Table 4.5

Significance of difference of Adjusted means for Frayer Model based Instruction and Conventional Method for Total Sample

Adjusted	Mean	SD$_{(yx)}$	SE$_{D(yx)}$	t	p	level
Experimental	37.26					
		1.64	0.35	51.04	0.000	0.01
Control	19.40					

A post- hoc test was applied for pain wise comparison of the adjusted means scores in English Vocabulary test for experimental and control groups since t value is 51.04, P<0.01 it is significant at 0.01 values. So it can be concluded that the Frayer Model based Instruction of teaching is significantly more effective than conventional method of teaching in enhancing Vocabulary test in English among the students of Class V.

TENABILITY OF HYPOTHESES

1. There exists significant difference in the mean pre-test and post-test scores of English Vocabulary test in class V students in experimental group is rejected.

2. There exists significant difference in mean pre-test scores of English vocabulary test of class V students in the experimental and control groups is accepted.

3. There exists significant difference in mean post-test scores of English Vocabulary test of class V students in the experimental and control groups is rejected.

4. There exists significant difference in mean adjusted post-test scores of English Vocabulary test of class V students in experimental and control groups when pre-test is taken as a covariate is rejected.

Chapter-V

FINDINGS, CONCLUSIONS AND SUGGESTIONS

The Study in Retrospect

In this chapter an attempt is made by the investigator to summarize all the findings based on analysis and conclusions drawn from the investigation. The summary of the procedure adopted for the study is followed by a short description of the findings of the study. This chapter concludes with educational implications, recommendations based on the findings and suggestions for further research that have been derived from the present study in the field of education.

Statement of the Problem

This study aims to investigate the Effectiveness of Frayer Model Based Instruction on English Vocabulary among Primary School Students.

Objectives of the Study

The Objectives framed for the present study are as follows.

1. To prepare and validate instructional materials based on Frayer Model in teaching English Vocabulary for class V students.

2. To test the effectiveness of Frayer Model by comparing mean pre-test and post-test scores of Vocabulary in English among class V students in experimental group

3. To compare the mean pre-test score of English Vocabulary for class V students in the experimental group and control group.

4. To compare the mean post-test score of English Vocabulary of class V students in experimental and control groups.

5. To find out the significant difference in mean adjusted post-test score of English Vocabulary of class V students in the experimental and control groups when pre-test is taken as Covariate.

Hypotheses Framed

1. There exists no significant difference in the experimental group in the mean pre-test and post-test scores of class V students in English Vocabulary test.

2. There exists no significant difference between experimental group and Control group with regard to pre-test scores of class V students in English vocabulary test.

3. There exists no significant difference between experimental and control groups in the mean post-test scores of class V students in English Vocabulary test.

4. There exists no significant difference between experimental group and control groups when pre-test is taken as a covariate in the mean adjusted post-test scores of class V students in English Vocabulary test.

METHODOLOGY IN BRIEF

Method Adopted

Experimental method was adopted for conducting the present study

Experimental Design

Non-equivalent pre-test and post –test design was used for the present study.

Sample

The experimental study was conducted on sample size 85 students studying class V in Yettacode Primary Nursery School, Veeyanoor, Kanniyakumari District. One division from class V was treated as the Experimental group with 44 students and another section treated as the Control group with 41 students. The experimental group was taught by Frayer Model based Instruction and control group was taught by conventional method.

Tools used for the study

The following tools were used for conducting the study.

a) Instructional Lesson transcripts based on Frayer Model on selected topic from English textbook of Class V prepared by the investigator.

b) Vocabulary test on selected topic in English for class V prepared by the investigator.

Data Collection Procedure

At the end of treatment period, a post-test was administered to both the experimental and control groups students. The same Vocabulary test used for the pre-test was administrated for the post-test in both the treatment groups for the experimental study.

Scoring

The investigator prepared a scoring key for correcting the response sheet of Vocabulary test. Each correct answer was given one mark and wrong answer zero mark. The score of vocabulary test is the total of the scores obtained for all the items.

STATISTICAL TECHNIQUE USED

In the present study the following statistical techniques will be used.

1. test of Significance (t-test)

2. Analysis of Co-Variance (ANCOVA)

FINDINGS OF THE STUDY

Finding of the experimental study emerged from the analysis of the enquired data collected are summarized below as follows

1. The finding of the study revealed that no significant difference was found in the pre-test mean scores in English Vocabulary test of the experimental group and control group. The finding is supported by the obtained result. ($t= 1.096$, $p>0.276$).

2. Significant difference was found in the post- test mean scores in English Vocabulary test in the both experimental and control group. The finding is supported by the obtained result ($t=44.229$, $p< 0.000$).

3. There is significant difference between pre-test and post-test mean score of Vocabulary test of the experimental group. The finding is supported by the obtained result (paired t= 66.35 , p< 0.000).

4. Significant difference was found in the adjusted post-test and post test mean scores in English Vocabulary test in the experimental group and control group. The finding is supported by the obtained result. (f yx= 2445.6, p< 0.000 & t = 51.04, p< 0.01)

EDUCATIONAL IMPLICATIONS OF THE STUDY

The educational implications derived from the study based on the findings are as follows.

1. The premier implication of the study is that the lesson transcript based on Frayer Model prepared by the investigator for teaching English vocabulary can be a great help for English language teachers for teaching English vocabulary.

2. Frayer Model techniques of instruction are to be implemented in the school curriculum so that the students will get enough opportunities to use their imaginative, creative and intellectual potentialities.

3. The teachers shall utilize their imagination and creativity to develop innovative teaching methods for helping students to learn new English vocabulary.

4. Self-taught learning in the educational system needs to be improved, and teachers should encourage students' motivation and excitement for different vocabulary learning techniques.

5. Frayer Model techniques could be beneficial for the teachers and students to apply visual vocabulary training techniques to provide logical understanding of specific contexts, different materials and sophisticated issues.

6. Frayer Model technique can be utilized in enhancing the efficiency of the teaching-learning process, making students more independent and providing them with an individualized learning environment.

7. Teachers and students may benefit from using visual vocabulary training strategies that help them to understand complex situations, in many contexts, and various information logically.

8. Preparation of software packages on different vocabulary terms in English through Frayer Model technique of learning makes students more independent and providing them with an individualized learning environment.

CONCLUSION

Vocabulary is seen as an essential component of language learning, and English is frequently referred to as a modern world language. Today, most of the students struggle to learn a huge amount of vocabulary in order to pass their examination and have good communication skills. In this study, the students who

were treated with Frayer Model achieved higher mean scores than those students who taught through the conventional method. The results showed that Frayer Model of teaching improved the English vocabulary of class V students and also the students showed greater gains on assessments during FrayerModel of teaching. Moreover, Frayer Model increased the student engagement and motivation towards learning new vocabularies by that, the learning became interesting, innovative and permanent. The use of Frayer Model increases the students' achievement in learning English, especially in vocabulary mastery. By applying Frayer Model, the students practice their brain to memorize words based on their creative imagination. During the teaching-learning process based on Frayer Model technique, the students were more active, enthusiastic and interested to take part in the lesson. As a result, they could remember the vocabulary easily and retain it for a long time. This research will be helpful to recommend future English teachers to adopt and practice Frayer Model Techniques in teaching English vocabulary. Proper guidance and thoughts should be taken into consideration while teaching English vocabulary to students at any level of education.

RECOMMENDATION

1. The study revealed that Frayer Model was highly effective in learning English vocabulary. Hence the Frayer Model method can be used for teaching difficult subjects at different levels of education such as Primary. Secondary and Higher Secondary.

2. Curriculum planning committee and policy makers can suggest the use of Frayer model to make English vocabulary learning more meaningful and comprehensive.

3. For English language teachers, faculty development programs such as in-service training and refresher courses pertaining to the Frayer Model approach to teaching challenging subjects should be organized.

4. More research may be conducted to explore the effectiveness of different aspects of Frayer Model Method of teaching on students in various disciplines.

5. Awareness programmes on Frayer Model could be organized for teachers to develop the knowledge and practical skill about Frayer Model technique that could be easily adaptable in the classroom.

6. Seminars and workshops on various aspects of Frayer Model Method could be organized for the teachers to improve their knowledge about Frayer Model.

7. Provide schools the necessary teaching resources for teaching English so that students can focus and develop their language skills.

8. An in-service training program pertaining to the Frayer Model of teaching could be offered to English instructors in order to familiarize them with its various facets.

SUGGESTIONS FOR FURTHER RESEARCH

1. The effect of Frayer Model on the learning outcomes with regards to all disciplines may be conducted.

2. The effect of Frayer Model Method to develop creativity and imaginative power on primary school students shall be planned.

3. A comparative study of the effect of Frayer Model on both English Medium students and Tamil Medium students can be undertaken.

4. The impact of Frayer Model teaching enhances the cognitive, affective and psychomotor domains can be studied extensively.

5. A study of the effectiveness of Frayer Model is to enhancing the English vocabulary for various school subjects may be planned.

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