

# THE IMPACT OF WORD MAP ACTIVITIES ON PRIMARY SCHOOL STUDENTS' VOCABULARY ACHIEVEMENT 

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## THESIS APPROVAL PAGE


#### Abstract

I certify that in my opinion, the thesis submitted by Aseel Khamees Ahmed ALDULAIMI titled "THE IMPACT OF WORD MAP ACTIVITIES ON PRIMARY SCHOOL STUDENTS VOCABULARY ACHIEVEMENT" is fully adequate in scope and quality as a thesis for the degree of Master of Arts / Methods.


Assoc. Prof. Dr. Najwa Yaseen ISMAIL<br>ONLINE<br>Thesis Advisor, Department of English Language and Literature

This thesis is accepted by the examining committee with a unanimous vote in the Department of English Language and literature as a Master of Arts thesis. July. 19, 2022

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The degree of Master of Arts / Linguistics by the thesis submitted is approved by the Administrative Board of the Institute of Graduate Programs, Karabuk University.

Prof. Dr. Hasan SOLMAZ
Director of the Institute of Graduate Programs

## DECLARATION

I thus certify that the content of this thesis is entirely original work of mine and that all sources consulted and data analyzed were done so in compliance with the institute's established academic standards and ethical guidelines. There are no errors in this thesis's references to other sources; they have been mentioned and referenced verbatim.

No matter what happens, I'll take full responsibility for anything that goes against what I stated above.

Name Surname: Aseel Khamees Ahmed AL-DULAIMI<br>Signature:

## FOREWORD

First and foremost, we express appreciation to Allah, the Almighty, upon whom we rely for nourishment and direction. Second, I would not have completed my task without God's assistance without his patience, encouragement, and appreciation to my supervisor, Assoc. Prof. Dr Najwa Yaseen Ismail, for her invaluable mentoring and constructive criticism. I'd also like to express my gratitude to my classmates, brothers, and sisters for their kind support and encouragement throughout these years while I worked toward completing this project.

## DEDICATION

This work is dedicated to the soul of my parents, who have never failed to provide me with financial and moral support, forgiving all our requirements while we created our system, and taught us that even the most monumental endeavour can be finished if done in small steps. This dissertation has been dedicated to my supervisor's Assist. Prof. Dr. Najwa Yaseen Ismail, I could not have completed this project without her continued support and counsel. I dedicate this project to all of my family, my husband, my children, brothers, sisters, and my best friends who helped me and encouraged me.


#### Abstract

Vocabulary is not just the learning of new words but also to be remain in knowledge. As the speakers will get help when they use vocabulary in the communication. But, Iraqi EFL learners face difficulties in the learning vocabulary. Therefore, the study is intended to conduct on word-map activities on primary school students' vocabulary achievement. Equivalent-group design strategy used in the investigation splits into two groups (EG and CG). Pre-test and Post-test have been conducted to test the hypothesis. The study found word map activities are better than the traditional method in teaching vocabulary to students. The study can conclude that this technique can be utilized to improve vocabulary of students as well as help them to learn easily as they have to find meaning of some words which is synonym to the main word. Word map activities can also enhance the social communication of students as well as give them confidence to participate in the activities. The study recommended EFL teachers to advance their ways to know the most significant ones through which they can use word-map activities.


Keywords: Word-Mapping; Teaching Vocabulary; Experimental Strategy

## ÖZ

Kelime öğretmek açıkça sadece yeni kelimeler sunmaktan daha fazlasıdır, ancak knouşmacı tarafindan dilde ne sıklıkta kullanıdığının temeli olarak kullanılır. kelime bilgisi sadece yeni kelimeyi öğrenmek için değil aynı zamnda bilgiyi elde etmek için de öğretilir kelime eşlemenin öğrencilerin kelimeleri deha kolay anlamalanna ve ezberlemelerıne yardıma olması beklenmektedir Bu teknik aynı zamanda öğrencinin kelime dağarcığını gliştirmek için de kullanılabilir ve öğrencilerin ana kelimeyle ilişkisi olan bazı kelimeleri bulmaları gerektiğinden öğrencilein daha kolay ezberlemelerine yardımıcı olabilir. Bu nedenle çalışmanın amacı ilkokul öğrencilerine kelime öğretiminde bir strateji olarak kelime eşleştirmenin etkililiğini belirlemektir Ön-sontest, Eşdeğer Grup Tasarımı, bu araştrımada kullanılan deneysel stratejidir . Mevcut çalışmanın edilen sonuçları, kelime Haritası Etkinlkleri kullanılarak işlenen deney grubunun başarısının, geleneksel yöntemle işlenen kontrol grubuna göre daha iyi olduğunu göstermektedir. Dolayısıyla kelime Haritası Etkinlikleri kullanmaın öğrencilerin kelime dağarcığının anlamını iyi bir şekilde anlamalarına yardımcı olduğu sonucuna varılabılır

Anahtar Kelimeler: Kelime Haritalama; Kelime Öğretimi; Deneysel Strateji

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## ABBREVIATIONS

L1 : First language
L2 : Second language
ESL : English as a Second Language
EFL : English as a Foreign Language
SLA : Second Language Acquisition
VLS : Vocabulary Learning Strategy
VSS : Vocabulary Self-Collection Strategy
WMS : Word Mapping Strategy
DL : Difficulty Level
DP : Discrimination Power
EG : Experimental Group
CG : Control Group

## SUBJECT OF RESEARCH

The main topic of the current study is 'the impact of word map activities on primary school vocabulary achievement of students.

## PURPOSE AND IMPORTANCE

The thesis conducted to determine the effect of word map activities on primary school with respect to vocabulary achievement of students. Through the idea of word mapping, students get an understanding of new words since it allows them to analyse the features of word theories, classify words, and understand the connection between words, as well as how the words are comparable to one another.

## METHOD OF THE RESEARCH

In this study, an experimental design as an analysis tool was used. The researcher administered a pre- and post-test to two groups of students in the EG and CG. The test was in the form of a series of essay questions and answers followed by a discussion.

## THE HYPOTHESIS / RESEARCH PROBLEM

The hypothesis of the research is whether the Word Mapping method is successful in teaching vocabulary to students in order to be able to identify which terms are suitable for the context.

## SCOPE AND LIMITATION

More use of time and resources while collecting the quantitative data makes the study period lengthy due to lack of cooperation from the respondents. Furthermore, it is recommended that future researchers perform their study at a senior high school that includes pupils who have a strong command of the English language to ensure the best possible results from their studies.

## 1. INTRODUCTION

### 1.1. Problem Statement

One of the most important abilities that learners should have while learning another language is an excellent command of the vocabulary. Language's vocabulary is inextricably intertwined with its grammar; it is one of the four basic abilities for organizing sentences that are taught in schools. People who have a strong command of vocabulary are better communicators, can better understand the meanings of a word, and are better speakers.

A common mistake among many instructors is to place an emphasis on teaching mainly in terms of grammatical rules, without explicitly explaining on identifying the concept of the words. It is common for instructors to instruct their pupils to look up new terms in a dictionary and then explain what they imply while teaching vocabulary. It is in this situation that the remembering method is the typical technique employed by the instructors. The method tends to place a strong emphasis on teaching pupils how to remember the language they have acquired throughout the learning process. Students have difficulty putting the words together in a phrase if they do not practice and drill with them. Drilling is a technique in which the instructor models a word or expression, and the pupils repeat it. For this reason, while using the remembering method, the instructor should combine this with the drilling technique in order to ensure that the pupils get the meaning of the words. Unfortunately, the majority of instructors simply use the remembering method and do not train their students. Thus, pupils are unable to comprehend the definition of words, as well as recognize that a word somehow does not exist anymore in their mental landscape (Schmitt \& Meara, 1997).

As a result, the remembering method is ineffective for vocabulary instruction without drilling since the pupils are unable to comprehend the terminology. Concerning the reading process, instructors guide their students through the task and then have them remember terminology once they have finished reading the passage. They may also use this method while teaching kids writing requiring them to have a high amount of vocabulary words. If they did not have access to tools for vocabulary
enrichment, learners cannot write and know the meaning of the terms. Because they are comparable to listening and speaking abilities, pupils will not be able to acquire exceptional English proficiency until they master vocabulary. As vocabulary is the base of learning new languages, it becomes an absolute need for those who want to go further. Vocabulary teaching is a verbal method that involves the use of the ideal scenario, synonyms, opposites, scale, definition, and categories. Thus, the instructors should utilize the right ways to teach vocabulary. Kids may study the synonyms and opposites of terms, write the definitions of terms, and use the words in sentences employing this method. Based on the study's findings, it is reasonable to draw the conclusion that using a modified Word Map to teach writing is now challenging due to the addition of vocabulary. One of the most common difficulties students have while writing descriptive paragraphs is a lack of knowledge of the appropriate language. It will be considered an error if the learner does not grasp the elements of the exam that must be assessed in writing. When it comes to writing skills, vocabulary as being one of the writing gears plays an important role since the number of words, we use is a fair estimate of our intellect as well as the quality of our written communication. The results of writing tests revealed that students' writing abilities differed based on following the initial adoption of the updated word map, according to the data. The adoption of a modified word map increased students' writing skills. The use of a customized word map has an impact on pupils' writing abilities as well as their vocabulary. As a result, the first iterations of the globe map were haphazard and not straightforward. Because they were perplexed by the many branches, the pupils were irritated and lost their writing ideas at various points. The new version of the globe map, on the other hand, is more hierarchical and well-organized than the previous one. It is also presented in a straightforward manner (Carter, 1987).

Before they compose a sentence, the pupils are in the process of framing. Students find the writing process to be fascinating since it involves them in the process. Because of this, students may make connections between vocabulary terms and their own backgrounds or experiences. As a result, it requires pupils to deal with different situations, reading, and writing. Finally, it involves the learners who can help them develop their writing skills.

### 1.2. Research Questions

Looking at the problem statement, the researcher has framed few research questions-

1. Are there any differences in word map activities and conventional methods on the students' vocabulary before any training?
2. Are there any differences in word map activities and conventional methods on the students' vocabulary after training?
3. Is there a difference in achieving vocabulary at the level of recognition and production among primary school students?
4. Have primary students been able to improve their vocabulary before and after using word map activity as a teaching method?

### 1.3. Aims

The study aims to-

1. Evaluate of teaching methods on vocabulary achievement among primary students
2. Give recommendations on having more attention to word-map activities in teaching vocabulary to learners
3. Find out the differences between pre-tests and post-test in word-map activities and conventional methods as a teaching strategy in improving students' vocabulary
4. Discuss the findings of the control group and experimental group.

### 1.4. Hypotheses of the Study

1. Mean scores of experimental and control groups have differences between Word Map Activities and conventional method in teaching vocabulary in the pre-test.
2. Mean scores of experimental and control groups have differences between Word Map Activities and conventional method in teaching vocabulary in the post-test.
3. Mean scores of experimental groups have differences between the recognition level and production level in vocabulary achievement in the post-test.
4. Mean scores of experimental groups have differences between pre and post-tests in vocabulary achievement of students.

### 1.5. The Theory

The theory of Schwarts and Raphael (1985) has been adopted in the study. The theory discusses the procedures of word map activities in teaching vocabulary: a) project the vocabulary-mapping organiser for the class. Point out that the map must contain three relationships in order to generate a meaningful definition: "what is it? What are some examples, and what does it look like?"., b) To demonstrate this technique, the teacher starts by choosing a well-known term that can be quickly mapped such as yogurt, rainforest, and shoes., c) On the map, the teacher writes the word., d) ask "What is it?"., e) ask "what is it like?" Record students' responses on the map., f) ask "what are some examples?" Record students' responses on a map., g) describe to students that the definition now consists of examples, properties, and categories.

### 1.6. Value of the Study

Vocabulary development is a significant part of the teaching-learning course. While doing so, kids need a large amount of language to communicate and express their ideas, to understand the reading material, and even to read while doing so. In addition, vocabulary is significant in both learning and teaching situations.

The fact regarding perception appears to be in conflict with the requirement to teach and learn language using efficient methods. The goal of vocabulary instruction is to help students acquire more words, comprehend the meanings of new terms, and effectively employ words in communication. Therefore, the study is intended to focus on the impact of word map activities on primary school in respect to vocabulary achievement of students.

### 1.7. Limitation of the Study

The concept was limited to word map activities in teaching vocabulary to students while more strategies can be focused on the study. Existing studies were also found limited on the research topic. The study was limited to 125 students whether tried for 150 students as respondents and divided into two groups i.e., EG and CG. More use of time and resources while collecting the quantitative data makes the study period lengthy. Lack of cooperation from the respondents was also found by the researcher during the survey which is the major pitfall in collecting the data.

### 1.8. The Basic Terminology Definitions

### 1.8.1. Word Mapping

Students can build their understanding of concepts, including their hierarchical structure and attributes, using the framework provided by task mapping. Additionally, it aims to show students the hierarchical relationship between related concepts and assist them improve their conceptual understanding of a subject. In a nutshell, a word map is a methodical teaching strategy intended to improve students' comprehension of the examples given in a sentence. Use of word map activities is important and teachers must use them as a technique in vocabulary learning. As a result, pupil participation and the realisation that the method utilized would be more impactful to the word map's effectiveness (Robert et al, 1995).

### 1.8.2. Vocabulary Learning

Reading comprehension depends on vocabulary, and persons who don't understand the meaning of words are probably not good readers. The teacher must assist or help the leaners in learning and recalling of new words. Obviously, in order to aid students in learning and remembering the meaning of words various techniques can be utilized by the English teachers. (Sanusi, April 2009).

### 1.9. Plan of the thesis

The researcher plans the thesis as following:

1. Finding the aim of the study through the problem statement
2. To fulfil the aim, the researcher selected experimental design as a research method which was further divided into two groups i.e., EG and CG.
3. The selected participants have been distributed equally into these groups.
4. The participants have been selected from the primary school children from the Baghdad Governorate in the academic year 2021-2022.
5. Later, word map activities have been taught in the experimental group and conventional methods have been taught in the control group.
6. After this procedure, post-test have been conducted to analyse the better results between these two groups.
7. Collecting and analysing data in statistical form.
8. Conclusions, recommendations, and suggestions for further studies have been drawn as per obtained results.

## 2. THEORETICAL BACKGROUND AND PREVIOUS STUDIES

Language has a critical role in the intellectual, social, and physical development of kids. The vocabulary of a language refers to the words used to construct sentences. It is important to have a strong vocabulary since communication relies heavily on words. That is why anybody studying English or another language should be familiar with vocabulary. Vocabulary mastery enables individuals to communicate effectively with others and write and translate the denotation of words. They will be unable to write, talk, or interpret something in English unless they understand the meaning of the terms.

Language enables kids to succeed in all of their educational subjects. Students are supposed to get familiar with themselves, their cultures, and other cultures via language study. Students must acquire these abilities in order to learn a language. There are four kinds of communication: writing, speaking, listening, and reading. Additionally, they must acquire knowledge of three linguistic components. There are three components to the language: pronunciation, structure, and vocabulary. The critical point is that vocabulary is a language component, and language cannot have its existence without words. Words serve as indicators or symbols for concepts. They serve as a conduit for individuals to communicate their opinions. The more vocabulary we acquire, the more thoughts we should have. As a result, we will be able to express our thoughts more effectively. As a result, the chapter concentrates on the notion of word maps and their classifications in EFL lessons, as well as their influence on vocabulary. Additionally, the chapter discussed strategies for teaching vocabulary using work map tasks. Further, the chapter evaluated prior research that provided indepth information and insights into the study issue.

### 2.1. Theoretical Background

Lack of knowledge in vocabulary is one of the reasons for learning vocabulary. Many students face numerous difficulties in learning vocabulary, including a lack of vocabulary words and knowledge, which led difficulties in oral and written language. If students want to improve their vocabulary, they must focus on learning words and expression rather on learning grammar (Dellar and Hocking cited in Thornbury, 2002,
p.13). In light of the aforementioned difficulty with vocabulary acquisition, the author attempts to provide an alternate method in the form of the word mapping technique.

### 2.1.1. The Concept of Word Map

The term "word mapping" refers to a method for expressing information in the graghs. Nodes (points/vertices) and linkages (arcs/edges) comprise networks. Nodes signify ideas, whereas connections reflect their relationships. As implied by the phrases, word mapping is one approach for increasing pupils' English vocabulary. It is often taught as a very successful method of mixing language abilities into the classroom. However, the phrase word-mapping has been understood in a variety of types by instructors and textbook authors alike; both exercises provide a flexible but principled approach to adapting integrated skills to the requirements of individual students (Qomariyah \& Nafisah, 2020).

A word map is one of many strategies for memorizing new words by linking them with similar terms. Numerous experts characterize word map as a method of vocabulary instruction that engages learners to think about word connections. Thus, it was evident that using word maps as a method for teaching vocabulary helps students learn vocabularies by requiring them to consider the word relationships between target words and display them on their maps (Antonacci and O'Callaghan, Graves, and Watts).

Word maps are graphic representations of word meanings that are grouped to illustrate their links to other words. According to the explanation, the author found that the term map is a critical component of a student's art of vocabulary acquisition since students are required to portray their vocabulary knowledge as well as seek for and exhibit the relationships between target terms in their own maps.

According to Greenwood (2002), "the technique of associating a target word with similar terms might aid children in memorizing the target words." Thus, it is evident that students must speak, write, hear, and read the target words, as well as link them to other related terms, in order for the target words to be internalized and remembered and become part of their useable vocabularies.

Teachers may also use a word map to demonstrate to pupils how words might be grouped together-or how one-word links to or interacts with another. According to Harmer (2007), "a word map may demonstrate to pupils how to save and apply to increase their vocabulary knowledge."

Word Map


Figure 1. Word Map

### 2.1.2. Word Map Activities in EFL Classes

Decarrico (2000) asserts that it is crucial to expose children to new vocabulary words repeatedly and in settings that are complex enough to provide hints about how they should be understood. Memorizing word association lists with an emphasis on highlighted terms in context is a requirement for the activities and exercises. It has been demonstrated that teaching word lists using word memory techniques is an efficient way to quickly obtain a large number of words and recall them over time.

Understanding meaning might facilitate the acquisition of meaning (Nation, 1990). This link represents an underlying relationship in the students' minds; the definition of a word is partially determined by its relationship to comparable words that have a common foundation.

### 2.1.3. Types of Word Map Activities

Word mapping consists of central image, keyword, basic ordering ideas, branches, colour and, picture (Windura, 2008).
(1) Central Image

A central picture must explain the mind mapping's key concept and be placed in the centre of the page. It serves to engage pupils' right brains, improve their recall, and make learning fun.
(2) Key Word

A keyword is a term that serves as the catalyst for a statement or event. It is the use of just one keyword per line to find a known work in individual language or another language that's similar to the new term. It serves as a reminder for pupils to memorise a large number of words. It is a powerful term or verb that conjures a picture to elicit memory recall.
(3) Basic Ordering Ideas

The fundamental ordering concepts are the divisions that gather and organise details related to the primary issue and release out from the centre. Establishing fundamental organising principles that may drive our minds to create mind maps requires innovative ideas that encourages pupils to grasp the subject. It is thick in the middle and thins out at the ending. It may be understood as sub-headings for the subject and can be dispersed throughout but should not become vertical.
(4) Branches

The branches should be curved and equal in length to the text or image above. These branches may be thought of as sub-categories. It is made up of finer branches and contains information.
(5) Colours

Colour is an excellent memory indicator because it engages the brain in right direction in long-term memory acquisition. Colours stimulate the imagination and aid with memory. By using a variety of colours in your mind map through branches, the map backdrop, and pictures, you may breathe new life into it. It simplifies comprehension and memorization.
(6) Picture

In mind mapping, images are used to replace or reinforce previously written essential words.


Figure 2. Types of Word Map

### 2.1.4. Principles of Word Map Activities

According to what Buzan (in Purwoko, 2005) explains, mind mapping utilises colours and images to assist you in forming imagination with your own style while creating mind maps. Words or images embedded in curving lines or branches will aid the pupils' memory in associating them.

Additionally, Buzan (in Purwoko, 2005) outlines the following procedures for creating mind mapping:

1. Consider a piece of white paper in the landscape orientation.
2. Begin by sketching a coloured picture in the centre of the page and capitalising the important phrase.
3. Add on other division of themes around the map.
4. Select a colour and outline the mind mapping's primary topics on the thick branches branching out from the central image.
5. Use capital letters and only the most fundamental thoughts when writing about the keyword.
6. Create thick, vibrant branches that extend from your mind map.
7. Include a picture for each major branch to reflect a key topic, and utilise photos to visually represent each significant key phrase on your map.
8. Let's make the mind map be creative as much as possible.

### 2.2. The Concept of Vocabulary

Merriam-Webster describe vocabulary is "the collection of words employed by a language; separately in the context of the action, in relation to a topic." Vocabulary is the fundamental tool upon which the tongue is built as a communication element. Thus, instruction should be recognized as a necessary instrument for the development of various language abilities, both written and oral. Word recognition is a critical component of learning to speak. However, this is just the beginning; it is critical for pupils to know or perceive what they are discussing. Speaking is a necessary ability for both academic and professional success. As previously said, developing a broad vocabulary is critical if a speaker wants to achieve a higher level of comprehension; the more vocabulary a reader has, the more he or she will comprehend.

Students who suffer from speaking difficulties often talk less than their usually achieving classmates daily, making learning a new language more problematic. Limited spoken language skills may be present in students with learning disabilities, which has a negative impact on vocabulary development. Students who have a limited vocabulary find it more challenging to comprehend language appropriate for their grade level, participate in class discussions, and complete projects, quizzes, and tests in an efficient manner.

These often become more prevalent over time, highlighting the critical need for specific vocabulary education for kids with language impairments. When the speaking activity becomes more difficult, students' ability to understand at higher levels suffers because they lack a strong vocabulary.

Vocabulary is critical in English language instruction because students can't communicate effectively with others or convey their thoughts without it. Learning vocabulary is a complicated procedure; the primary goal of the vocabulary learning process is for pupils should be able to remember a word at random and identify it in its written and oral forms. Additionally, comprehending a word entails a fundamental understanding of its form and meaning. Vocabulary includes everything lexical that students required to know to fulfil their many academic needs.

### 2.2.1. Types of Vocabulary

Listening and speaking vocabulary is representative of spoken language, whereas reading and writing vocabulary is representative of written language. Written language is derived from spoken language. Each form of language serves a distinct function, and thankfully, an increase in one type of vocabulary serves as a catalyst for growth in another. Below are the following types of vocabulary-

1. Listening Vocabulary: This is the terminology that we understand and hear. When foetuses are sixteen weeks old, they can detect sound. Additionally, new-borns continue to listen various words result in they grow up listening to a variety of other words, so acquiring a large number of words throughout our lives. By the time we reach adulthood, the majority of us can recognise and grasp about 50000 words. Visual listening is introduced to deaf children via sign language. However, the quantity of words produced in this scenario is much fewer than that of a typical secondary listening vocabulary of the child.
2. Speaking Vocabulary: The term "Speaking Vocabulary" denotes to the words we use in conversation. The conversational vocabulary is limited. The majority of people communicate using between 5000 and 10,000 words (for conversation and giving instructions). The quantity of words used in this scenario is much smaller than in listening vocabulary, according to the user's degree of comfort.
3. Reading Vocabulary: This vocabulary denotes to the words that we automatically know while reading a text. We read and comprehend a large number of words but do not incorporate them into our spoken language. If
someone is a reader, this form of vocabulary is the second biggest. Reading expands one's vocabulary.
4. Writing Vocabulary: This vocabulary category denotes to the words that we acquire when we write to express ourselves. While it is rather easy to describe oneself orally using facial expressions and voice modulation, utilising the same words to communicate the same notion or thinking in writing is not quite as simple. Our writing vocabulary is profoundly influenced by our ability to spell.


Figure 3. Types of Vocabulary

### 2.2.2. Function of Vocabulary

Vocabulary development is a critical element of language learning exercises. It holds all of the vocabulary terms that are often utilised when other language abilities are acquired. Developing a vocabulary does not imply mastering the art of word isolation. A word must be taught in particular situation since a word's meaning may depends on the situation. Indeed, a phrase is taken out of context typically does not convey the intended meaning; the term's meaning is context-dependent. French (1983) supports this concept by stating that knowing English words and the meaning are useless until learner do not understand that either the word meaningful in the sentence or not. Further on, vocabulary development occurs as a result of pupils' experiences. To be helpful for communication, words must be coupled with their meaning.

Vocabulary plays a critical function in language acquisition. Everyone who wishes to learn a foreign language, even English, must have a strong command of the vocabulary. Acquiring a strong command of vocabulary is the first step in mastering English. As a result, children who lack vocabulary will have a tough time understanding English. They are unable to convey their ideas as obviously as they want due to an absence of vocabulary, and they are also unable to comprehend the lecturer's explanations due to a lack of familiarity with the lecturer's terminology. Additionally, they have difficulty reading books, newspapers, and magazines printed in English, as well as radio broadcasts and television programmes. Thus, mastery of a vast number of vocabularies is required in order to successfully learn a foreign language, including English means vocabulary serves as a method that enables children to comprehend precisely what they hear or read.

### 2.2.3. Teaching of Vocabulary

The following aspects of vocabular teaching has been explained by Gairns and Redman, Ur (1986):

1. Form: pronunciation and spelling

Learners should know how to pronounce or spell the words. These are selfevident qualities, and the learner will notice at least one of them upon first meeting the object. Teachers must ensure that each of these facets is appropriately presented and understood throughout the instructional process.

## 2. Grammar

The grammar must be taught with rules and principles. It is critical to offer learners this information concurrently with instructors teaching based on form. An item may change form unexpectedly in some grammatical contexts or may have certain unique relationships with other items in sentences. For instance, when instructors introduce a new verb, they must also teach its past form if the word is asymmetrical (bring, brought). Correspondingly, while teaching a noun, instructors must provide it in its plural form if it is asymmetrical (man, men), or bring learner's consideration to the word's lack of plural (advise, information). When instructors
introduce verbs, such as bring and learn, they must also introduce related verbs (brings to, learn-ing).

## 3. Collocation

The normal collocation of certain things is another component that contributes to the determination of whether a particular combination is 'correct' or 'incorrect' un a given context. Collocation is the use of two words in the same sentence, for instance, make mistake not do mistake and do homework not make homework. As such, this is more knowledge on a new thing that could be worth teaching. When the instructor introduces terms such as choice and conclusion, he or she may not imply that they take or make one. Collocations are often documented in dictionaries, either as a complete collocation under one of the headwords or a remark in afterthoughts.
4. Aspects of meaning: denotation, connotation, appropriateness

A word's meaning may be separated into two components: connotation and denotation. The term "denotation" relates to a word's literal meaning, as defined by the dictionary. For instance, the term "snake" in a dictionary refers to scaly, without feet, and sometimes poisonous reptiles with tapering, long, cylindrical bodies found in most tropical and temperate locations. Further on, connotation denotes to the connections associated with a certain term or the emotional connotations associated with that phrase. A word's connotative meanings coexist alongside its denotative meanings. The term "snake" may connote evil or peril. The appropriateness means that often has to be taught whether acceptable for particular thing or not. For instance, learners may know that that weep is almost equal to cry in denotation, but it is more formal and often used in writing than in speech, usually less prevalent.

## 5. Aspect of meaning

The relationship between the meanings of various items may also be instructive in education. There are several possible meaning correlations, for instance:

1. Synonyms means that have same meaning such as words like clever-smart and bright-intelligent.
2. Antonyms means that have opposite meaning such as Good - Bad.
3. Hyponyms means examples of same concept such as red, blue, green are hyponyms of the colour.
4. Co-hyponyms or co-ordinated means items are from identical concept like sparrow, pigeon, parrots, and peacock are coordinated.
5. Super-ordinates mean that cover particular items like colour is superordinate of green, red, and brown.
6. Translation means the mother language of learner, phrases or expressions that are roughly equal in meaning to the thing being taught.
7. Formation of words means any vocabulary item, whether it contains one word or many, may be broken into its component parts. A new word is produced by a process called word-formation.

More aspects of vocabulary were also defined by Gower, Philips, and Walters (1995):

1. The form includes part of speech, verb, preposition and so on. The author also discussed how is it spelled in regular or irregular way.
2. The meaning includes connotation of the word, can it have same or different meaning for different people as well as number of words have multiple meanings, as we are aware, but how does the context affect the meaning?
3. The use includes how vocabulary used or any restriction or any specific style of using it.

### 2.2.4. Principles of Teaching Vocabulary

This section summarises the study findings of the approaches used by an English teacher in communicating the form and meaning of vocabulary.

Usually, there are a variety of approaches to teaching vocabulary. However, there are a few points that most English instructors should keep in mind when introducing lexical items or new vocabulary to their pupils. This indicates that instructors of English want pupils to retain new terminology. Then, in order to prevent students from forgetting, it must be taught, practised, and reviewed. The topic, the amount of time available, and the importance of the material for the students are only a few of the factors that influence a teacher's approach (Taka, \& Singleton, 2008). This provides instructors with a rationale for utilising certain strategies when delivering terminology. When delivering a single intended vocabulary word, the instructor often mixed many techniques rather than using just one. Additionally, teachers are
encouraged to include as much variety in their planned vocabulary presentation as feasible. The approaches of teaching vocabulary given by Brewster, Ellis, and Girard (1992).

Using Objects
Realistic artefacts, demonstrations, and visual aids are used in this tactic. Since their memory for objects and images is extremely reliable, they may help learners recall language more effectively, and visual methods may act as signals for recalling words (Taka, \& Singleton, 2008). Additionally, Gairns \& Redman (1986) contend that real-world contexts and concrete vocabulary are best for novices or young learners.

The use of objects to demonstrate meanings is possible when the vocabulary is made up of concrete nouns. Presenting a new word beside a real object frequently helps students memorise it through visualisation. The use of items brought in by students or found in the classroom is permitted.

Drawing
Alternatively, objects may be sketched on the chalkboard or on flashcards. The latter may be reused in a variety of scenarios if they're constructed from cards and wrapped with plastic. They may assist young learners in quickly comprehending and applying the primary concepts taught in the classroom.

Use of Illustrations and Pictures
The past knowledge of students is connected to a new tale via pictures, which helps in their achievement of new vocabulary. Numerous vocabularies can be presented through pictures or illustrations. They are an excellent way to clarify the sense of unfamiliar words. They should be used often. The collection includes flashcards, posters, magazine images, wall charts, stick figures, photos and board drawings. The images used to teach vocabulary come from a variety of sources. Apart from those created by the instructor or pupils, there are collections of vibrant images aimed for schools. Additionally, they may create their own visual assistances or utilise images from periodicals. Visual assistance assists learners in comprehending the connotation and contributes to the word's memorability.

## Contrast

Certain words are simply conveyed to learners by comparing them with their opposites; for example, the word "good" is easily explained by contrasting it with the word "bad." However, some terms are not. Additionally, the word "contrast" infers demonstrating a distinction, like photographs that show how much weight someone dropped by contrasting the "before" and "after" pictures.

Researches have revealed that vocabulary is best learned when related to previously known material, it is expected that studying synonyms is a method for expanding leaner's vocabulary (Rudska et al., 1982, 1985). Understanding synonyms is also essential since this is the way dictionaries are planned. Leaving bilingualist dictionaries apart, monolingual dictionaries rely on words to clarify words, often using synonyms in the procedure (Ilson, 1991).

## Enumeration

An enumeration is a comprehensive, structured list of all the elements in a collection. It may be used to convey information or it can be saying the strategy is advantageous when a word is hard to visualise. We may state "clothing" and then clarify by mentioning or enumerating several objects. The teacher may identify many colour items, such as red, brown, or blue, and then the definition of the term "colour" will be evident. (Harmer, 1991).

Mime, Expressions and Gestures
Mime or gesture is beneficial if it highlights the critical role of facial expressions and gestures in communication (Klippel, 1994). In reading passages and speaking activities, it is commonly used since it places a high premium on communication. Mime, gestures, and attitudes may present numerous words. Adjectives like "sad" and "happy," for instance, or acting like you're removing a hat off your head to teach about hats.

Numerous researches have highlighted the significance of gestures in L2 learning (Gullberg, 2008). When communicating with new learners, teachers often use gestures (Sime, 2001; Hauge, 1999). It is widely accepted that "teaching gestures" attract students' attention and add vitality to the lecture. Tellier (2007) identified three primary functions for teaching gestures: class management (to question students,
request silence, etc.), evaluation (to show a mistake, congratulate, etc.), and explanation (to indicate syntax, explain new vocabulary, etc.).

Along with assisting understanding, instructional gestures maybe beneficial for the memorisation process of learners. Certainly, instructors of second languages using gestures as a teaching method assert to help learners in memorising the L2 vocabulary. Others have noticed students, particularly younger ones, instinctively mimicking the gesture as they utter the word. Thus, the influence of gestures on memory is something that is often seen but seldom investigated on an empirical and systematic basis (Tellier, 2008).

## Guessing from Context

Guessing from context has been extensively advised as a strategy for coping with unknown language in unedited choices by L1 and L2 reading professionals (Dubin, 1993). There are two kinds of contexts; first consists of syntactic, semantic, and morphological information in a particular text and second consists of prior knowledge of reader on the read topics (Nation and Cady, 1988). Similarly, McCarthy (1988) discussed the context as included inside the text, namely the syntactic, discourse information, and morphological that may be categorised and defined in terms of generic characteristics. Contextual learning includes substantial reading and participation in a discussion and watching television, films, listening tales or radio (Nation, 2001). For a reader to guess a word in a written or spoken text, four conditions must be met: the text, the reader, any unknown words, and any textual cues, including any information about guessing. If one of these aspects is missing, it may impair the students' ability to predict. Additionally, this method pushes leaners to take opportunities and make educated guesses as likely about the meanings of unrecognized terms. This will develop their self-assurance and enable them to decipher the meanings of words on their own. There are several cues that learners might utilise to build their own meanings, including examples, the resemblance of spelling or sound in the mother language, and common knowledge (Walters, 2004).

## Eliciting

Basically, the strategy gives motivation and memorable to pupils in learning vocabulary.

## Translation

Cameron (2001) said that translation doesn't need inspiration to learn the meaning of words. When dealing with incidental vocabulary, it can be beneficial for teachers (Thornbury, 2002), checking learners' comprehension, and highlighting similarities or dissimilarities between L1 and L2 possible to make errors (Takač, \& Singleton, 2008). There are some words that require translation, and this strategy has the potential to save significant time.


Figure 4. Principles of Teaching Vocabulary

### 2.2.5. Difficulties in Teaching Vocabulary

Language makes from vocabulary. An individual must possess a sufficient vocabulary in order to speak with another individual. In English education, the learning process presents several difficulties when it comes to teaching vocabulary. Thornbury (2000), discussed on fundamentals that contribute to pupils' difficulty with certain words:

1. Pronunciation: Learning words that are tough to pronounce is more challenging. For instance: Gorgeous, Lecturer, etc.
2. Spelling is based on sound, spelling errors can cause pronunciation or spelling errors as well as add to the complexity of a term. such as a headache, a muscle, etc.
3. Length and complexity: Shorter words are easier to remember than longer ones. Additionally, polysyllabic words' various stresses add to the complexity. Examples include: unavoidably, unavoidably, and essential.
4. Meaning: Learners are likely to become perplexed when the definitions of two terms conflict. It is sometimes referred to as a word with multiple meanings, like since and yet.
5. Range: Words with a broad range of use are frequently thought to be easier to use than their equivalents because of their meaning and idiom. For example, the word thin is used more often than the terms skinny, slim, and slander. Furthermore, it may be challenging to understand the meaning of some phrases. For instance, the word "propaganda" may signify "publicity" in several languages, despite its negative connotation in English.

### 2.2.6. Vocabulary Achievement in EFL Classes

Communication in a second language can be tough due to vocabulary, hence having a strong vocabulary is generally seen as an essential skill. Schmitt (2000) emphasises the value of vocabulary development by stating that "lexical knowledge is vital for communicative ability and SLA."

Nation (2001), Language use and vocabulary knowledge go hand in hand since language use makes vocabulary knowledge easier.

The researches of Laufer and Nation (1999), Maximo (2000), Read (2000), Gu (2003), Marion (2008), and Nation (2011) have agreed that increasing one's vocabulary is necessary for speaking and writing in L2 and has a significant impact on both. Learning vocabulary is essential for ESL and EFL sessions since it affects all language abilities, including speaking, reading, and writing (Nation, 2011). Developing a sizable vocabulary is necessary for utilising a L2 in daily life, claim Rivers and Nunan (1991). Without a big vocabulary, we cannot use the structures and functions we have acquired for clear communication.

The main and most significant obstacle that L 2 readers must overcome is a lack of vocabulary knowledge, which is dependent in large part on second language readers' comprehension (Huckin, 1995). In manufacturing, we need to have a vocabulary of words from which to select while trying to communicate a message or idea. "Learners
pack dictionaries rather than grammar books when they travel" (Krashen, as reported in Lewis, 1993). As stated by Wilkins (1972), "Being able to construct grammatical sentences is of little help if one lacks the vocabulary required to adequately convey what they want to say. Nothing can be said without language, yet very little can be spoken without syntax." As mentioned in Maximo (2000), Richards (1980) and Krashen (1989), as well as other academics, offer a number of arguments in favour of paying particular attention to vocabulary. "It goes without saying that learning a language requires a broad vocabulary to begin with. Learners of second languages are aware of this; they frequently mention that a lack of vocabulary is a major problem and carry dictionaries rather than grammar books ".

Further, it has been determined that the single biggest challenge for L 2 learners is vocabulary (Meara, 1980). This claim would suggest that students think a vocabulary system's open-endedness is what makes it challenging. In order to learn L2 vocabulary, it is unclear which principles apply or which terms should be examined first. Despite these difficulties, L2 vocabulary remains a need for language students subsequently it "has usually been one of the linguistic workings observed in language tests" (Schmitt, 1999, 1989). They consequently devote a lot of time to learning categories of L2 terms and heavily depend on their bilingualistic dictionary as their primary means of communication. Many learners also view SLA as largely a vocabulary acquisition issue. As a result, applied linguists and language teachers are starting to understand the significance of learning vocabulary and are looking into better behaviours to encourage it. This study includes a section on strategies used by students, particularly for vocabulary learning strategy (VLS), which is our main focus.

### 2.2.7. Steps of Teaching Vocabulary with Word Map Activities

The researcher will explain the word map activities in this part. Harmer suggested the term map activity. He recommends the following:

1. To begin, the teacher writes the target word on the chalkboard, for example, "Home."
2. Secondly, learners are expected to work on various elements of homes and their contents. They may add rooms to the home one by one by writing on the board, such as the dining room, garage, kitchen, and bedroom.
3. Thirdly, when the student has listed all of the rooms in the home, they may add items that belong in each room, for example, in a bedroom, there is a bed, bedsheets, mattress, dressing tables and Almirah. Finally, when the board fills with words, it may be used to demonstrate to pupils how words gather together.

Johnson and Pearson (1984), as reported in Thuy (2013), broadened the use of the term "mapping" as a vocabulary education approach as follows:

1. An idea or expression associated with classwork should be written on a piece of paper, or chalkboard, or a translucent slide.
2. Encourage the pupils to come up with as many terms as possible that are associated with the chosen keyword or subject.
3. Assist learners in categorising the word.
4. The categories should be labelled by students
5. Identify the relationships between these words.

### 2.3. Related Previous Studies

### 2.3.1. Studies related to Word Map activities and its impact on EFL learners

The technique of creating connections between two stimuli words depending on the words of the response is known as "word association". If the reply word of two stimulus words is similar, then the stimulus words are also similar. Additionally, the association provides information on the participant's mental and verbal abilities. The participants are either presented with the concepts or ideas in the form of pictures or words, via the use of flashcards, or through the use of spoken words.
"Word map is the process through which words get connected with one another and has an effect on the way words are learned and remembered." Richards, et al. (1985).
"Word map is not a straightforward issue of visible action; it is a complicated mental procedure that happens between hearing one word and making another" (Wright, 2001).

Many academics have investigated word mapping through case studies. Both the Word Mapping Strategy (WMS) and the Vocabulary Self-Collection Strategy
(VSS) work well for teaching Maritime English vocabulary to learners with and without metacognitive awareness (Sari et al., 2018). When the efficacy of VSS and WMS were examined, we discovered that VSS was more successful in both low and high metacognitively aware cadets. Coto, (2017) established that semantic word mapping is an effective tool for vocabulary instruction. Students' demands while they are learning vocabulary include the notion of contextual meaning and the ease of learning grammar. However, this study demonstrated a good effect on individuals who would suggest research on vocabulary instruction. Numerous ideas assert that acquiring language entails mastering its structure, meaning, and application. In Junior High School, teaching vocabulary utilizing semantic word mapping is exact. Widyawati (2016) found a substantial dissimilarity in the vocabulary achievement of pupils who were taught utilizing semantic word-mapping. It can be observed that the value of significance ( p ) was smaller than the value of sig ( 0.05 ). Given that the experimental group outpaced the control groups on the post test, the difference in posttest scores between the two groups appears to be favourable. According to the student perception questionnaire, students have a favourable attitude toward the adoption of word mapping. It seems as if pupils were unfamiliar with word mapping prior to receiving therapy utilising modified word mapping. However, after they have received therapy, they discover that word map may assist them in identifying a new language. Looking the benefits of word map, learners believe that this approach is really beneficial and resulting in a good view of students.

Ronaghi et al. (2015) demonstrated in their study Vocabulary Acquisition: A Response to Help-Seeking Strategy (A Study in Azad University, Malayer, Iran) that the word mapping approach is highly effective for enhancing learners' vocabulary in the preceding study, "The Effect of the Word-Map Technique on Iranian EFL Learners." Because students who were taught using this technique were able to improve and enhance their performance, for example in speaking, the outcome revealed a huge rise in students' performance in vocabulary learning. The word map method also helped students develop their repertory. The method works for all proficiency levels and virtually all languages, including Persian, Arabic, and others. According to Satuna (2015), the State Vocational School 1 Pamekasan (Accounting Department 1) uses word mapping to teach vocabulary, and it is successful in the traditional category. It was shown that by using the word mapping strategy to improve
vocabulary mastery, students were motivated to study more successfully and enjoyably through their active engagement in using English.

### 2.3.2. Studies related to Vocabulary

Heibert and Kamil (2005) defined vocabulary as the comprehension of word meanings. The word "vocabulary" has many different meanings. For instance, few teachers use the term to describe how quickly their pupils can recognise words in print, while others refer to their learners' comprehension of words as their meaning vocabularies.

Other educators will utilize the phrase to discuss their students' grasp of words they hear spoken or their hearing of vocabulary. Academic vocabulary is a term used by subject matter experts to describe language that is specialised to a given field. In this section, the concept of vocabulary is used to understand learners spoken as well as written terminology. Vocabulary includes a theoretical knowledge of words that extends well beyond their straightforward dictionary definitions. The vocabulary understanding of students develops over time as they discover relationships between terms, look at instances with and without the term and interrelated words, and correctly apply the word in context (Snow, Griffin, \& Burns, 1988).

Contrarily, the usage of vocabulary lays the groundwork for how students listen, speak, read, and speak (Richards and Renandya, 2002). Without a large vocabulary and methods for expanding it, language learners frequently fall short of their possibility and are dejected from having benefits of opportunities for language learning like listening radio, conversing with a native speaker, watching television, and using language in novel contexts,

The vocabulary as a group or set of terms for a given language or a group or set of phrases that speakers of a certain language may speak (Hatch and Brown, 1995).

Zareva, Schwanenflugel, and Nikolova, Y. (2005) state that "vocabulary is an inescapable component to communicate and express the meaning in which students can have help from the teachers to improve their vocabulary knowledge. Students who lack a good command of the language may experience dissatisfaction and loss of confidence. (Nation, 2001)

Vocabulary is challenging for a variety of reasons (Zulfandi, 2011, cited in Anderson, 1981). To begin with, there are two types of words: oral and written. The words we recognise and employ when we listen and speak are referred to as our oral vocabulary. The words we use in reading and writing and are familiar with make up the written vocabulary. Receptive and productive knowledge are the two different categories of knowledge. Receptive vocabulary refers to the words we recognise when we hear or see something. Productive vocabulary refers to the words we employ when speaking or writing. Receptive vocabulary is frequently more extensive than productive vocabulary and includes a sizable number of phrases to which we assign meanings, regardless of our knowledge of their full definitions, implications, or frequency of use in speech or writing.

Numerous researches have been discussed on vocabulary as a critical component of language development. Laufer (1997, as referenced in Nilforoushan, 2012) says that vocabulary acquisition is at the centre of language learning and usage. Indeed, it is this process of vocabulary acquisition that defines the core of each language. Without vocabulary, speakers in any language are unable to transmit meaning and communicate with one another.

The degree to which an individual's knowledge of a word is particular is determined by the individual and his or her motivations, aspirations, and demands for the word (Hatch, 1995). There are five critical phases to vocabulary acquisition (Hatch, 1995).

## Encountering new words

The earliest and most crucial step of vocabulary development is come across with new words or acquiring a source of words. This period is crucial, since unintentional vocabulary acquisition is required for L2 learners to attain a level of proficiency similar to native speakers. Reading is not the only way for students to come into touch with words; watching television and listening radio are other useful methods of vocabulary acquisition. Additionally, dictionaries provide a source of new terminology and new uses for old ones.

## Getting the word form

The second critical phase in vocabulary acquisition seems to be acquiring a distinct representation - visual or both - of the vocabulary item's shape. The significance of obtaining the correct form of a word is especially evident when learners are asked to provide meanings for terms. Beginner learner are especially prone to make errors that are clearly connected to confusion between the forms of two words.

## Getting the word meaning

This level includes asking non-native English speakers what words mean, mentally imagining what words mean, articulating what you mean, and asking for the English term. Though, the majority of instructors are aware that learners believe dictionaries are a primary source of word meanings.

## Improving word recognition and meaning

Flashcards, matching activities, and crossword puzzles are just a few examples of the many different kinds of vocabulary acquisition drills that can be used to strengthen the relationship between form and meaning.

## Using the word

Utilization of the term is the last phase in word acquisition. Some may argue that this stage is unnecessary if just receptive knowledge of the word is needed.

When teaching vocabulary, a number of lexical factors need to be considered given by Gairns and Redman's Moras (1986):

1. Limits of conceptual meaning: Knowing the limits between the lexis and terms with comparable meanings as well as what the lexis relates to like table, chair.
2. Homonymy: recognising the multiple meanings of a single word form as opposed to different meanings that are distantly connected like a file: used to put papers in or a tool).
3. Polysemy: recognising the differences between a single word form's varying yet connected meanings (head: of a person, of a pin, of an organization).
4. Style, register, dialect: the ability to recognise various formalities, the impact of various contexts and issues, as well as variations in geographical variance.
5. Synonymy: identifying the various shades of meaning between synonymous like decrease, decline, diminish).
6. Translation: knowledge of the parallels and differences between the foreign language and one's native tongue (e.g. false cognates).
7. Affecting meaning: Recognising the differences between the emotive and attitudinal (denotation and connotation), which rely on the speaker's or the attitude. The social and cultural relationships between lexical elements are another essential characteristic.
8. Grammar of vocabulary: gaining knowledge of the rules that allow children to construct various word pronunciations or even whole words from a single word (e.g. keep, kept, keeping; skill, unskilled).
9. Pronunciation: the capacity to know and use words in speech.
10. Homophony: recognising words that sound similar yet have different spellings and meanings like see, sea.

Knowing a term in a second language needs the language learner to exert effort. According to Wallace, "Language learners may master a term in a second language if they can connect or correlate it with other similar words." Therefore, it is clear that a learner, learning language must grasp how to correlate a word with another term in order to comprehend the word properly.

According to Nation, "understanding interrelated words and what it signifies in a certain context" constitutes "knowing a term." According to what Nation states above, understanding a word is one approach to determining what the word means in a certain situation.
"Teaching language is a crucial component of the teacher's skill," claims Harmer. Since learners must watch words in order to understand how they are used, and evident that teaching vocabulary is an essential component of the teacher's craft. The ideal approach for teachers to achieve this is to present new concepts and demonstrate how to utilize them in context. Though, several instructors struggle with teaching vocabulary, since children often struggle with retaining new terms. Memorization is seen as a critical aspect in assisting pupils in acquiring language. As a result, instructors should be innovative in their selection of vocabulary exercises to boost learners' capacity to recall the targeted words.

Numerous specialists, including Wallace, Carter \& McCarthy, Ur, and Harmer, provide methods for memorising vocabulary items. Wallace describes another method
as "those who intend to have pupils think actively about what they are attempting to recall." As a result, it is evident that pupils must think actively in order to recall their target phrases. For instance, Students make an effort to connect the translated term to the target word.

Carter and McCarthy also suggest that "students may employ associative bonding to help them retain new language items." For instance, if the instructor presents cotton or fleece while teaching the word 'soft' will be kept not as an independent object but as one associated with the visual of cotton or fleece, making it simpler to remember.

Meaning links, including antonyms, hyponyms, co-hyponyms, synonyms, subordinates, and translation, are crucial elements of vocabulary education (Ur). The writer comes to the conclusion that in order for students to have a knowledge of the words and context in sentences, teachers must teach and introduce students to the process of discovering and looking for the meaning relationships between words, such as synonyms, antonyms, and translation. This element may assist pupils in improving their capacity to memorise freshly learned words.

Harmer continues, "How words cluster together is also an important component of vocabulary education." In his opinion, there are a variety of ways to teach or practise a specific vocabulary area so that the students' words are grouped together, which makes the process of learning new vocabulary easier. Harmer proposes the word map as one of the several methods for training a particular region of vocabulary.

Teachers need to be aware that introducing new terminology to pupils is different from teaching them their original language. They must also take into account the differences in teaching English to adults and young learners. Teachers must be familiar with the qualities of their students. Additionally, they must create effective strategies and appropriate materials in order to accomplish the language teaching objective.

Brown (2001) asserts that the fundamental premise of language learning and instruction is cognitive, since they are primarily concerned with mental and intellectual function. Five concepts are to apply: meaningful learning, automaticity, intrinsic motivation, strategic investment, and reward anticipation.

Throughout the teaching-learning process, instructors often encounter varying descriptions of learners' kinds and styles. Each kid has a unique level of English language proficiency. Despite the levels of instruction, not every student in a class will have the same level of English proficiency.

Harmer (2001) said that we must ascertain the identities of the various pupils in our classrooms. For example, we may determine their language level by examining their results on various examinations and monitoring their growth via both official and casual observation. This will indicate who in the class needs more or less assistance. It will drive our grouping of pupils and the kind and quantity of response we provide to each learner. Overall, we will adapt our instructional techniques, resources, and expected output to the level with whom we are working. Beginning readers can translate or transfer spoken sounds to printed words thanks to their vocabulary knowledge. Children can sound out, read, and grasp words more quickly and easily if they have the written terms in their vocal vocabularies. Because of this, vocabulary acquisition calls for particular approaches or strategies like Semantic Mapping strategy, to help pupils learn and retain English vocabulary.

According to Yuruk (2012) Semantic map is a technique for visually representing categories and their connections. It is a visual representation of category information organising. It may be used to assist students in discovering the links between vocabulary terms while teaching vocabulary. Students are instructed to brainstorm and come up with thoughts or words that are connected to the keyword. For instance, the instructor may choose "elephant" as the keyword and then invite the pupils to come up with synonyms. Students may think of terms such as large, trunk, four legs, brown, and land. Following that, the instructor and pupils classify the term. The environment, size, and physical qualities might all be included in the categories.

Stoller (1994, as referenced in Krisnawati, 2014), a semantic mapping visualises data organised into categories connected to fundamental ideas that promote meaningful word connections. It contains a central concept, or major idea, as well as classified notions that are connected to the central concept. The categories associated with the key notion and the relationships between words are graphically represented in a diagram or map.

Harvey et al. (2000, referred in Krisnawati, 2014) claimed that Semantic Map is a successful educational strategy. Semantic Mapping, in contrast to many other technologies, is not application-specific. The Semantic Mapping technique is characterised by the ability to show the sequence and thoroughness of students' intellectual processes, making both their strengths and weaknesses clear. Since semantic mapping makes use of short words or phrases, it can show both the smaller details of a problem and its overall context. Additionally, classifications, analyses, brainstorming, structures, properties, and examples can all be illustrated via semantic mapping. They are suitable for a variety of different sorts of students, consisting those with pre-intermediate English skills.

Numerous approaches must be employed while teaching vocabulary in order to persuade students to enjoy English class and prevent boredom throughout the learning process. The researcher hypothesises that teaching vocabulary using a Semantic Mapping technique might be a helpful and effective method to quickly boost learners' comprehension of vocabulary. Semantic Mapping is supposed to stimulate students to study and increase their enthusiasm for the English teaching and learning procedure. Additionally, Semantic-Mapping may be advantageous for those who want to learn English directly. It is seen from the standpoint of understanding, as well as the learner is constantly exposed to the significance of the notions conveyed. By emphasising understanding via the usage of links between words in a visual map, children are able to recall terms more easily as they are viewed on the map, since Semantic Mapping is a useful technique for presenting vocabulary.

The use of semantic mapping can help students learn new words, organise textual patterns, and develop their note-taking and creative thinking abilities (Zaid, 1995 as cited in Emor, 2012).

Semantic Mapping makes use of colour and has a spiralling structure that emanates from the centre. Using Semantic Map, lengthy lists of data may be transformed into beautiful diagrams with well-organized contents and simplified memory. Consider the following illustration:

## The Sample of Semantic Mapping



Figure 5. Sample of Semantic Mapping
Yuruk (2012) asserts that in a setting of foreign language acquisition, it cannot be disputed that vocabulary is a critical component that is heavily stressed. When we contemplate the relevance of vocabulary acquisition, we cannot overlook the function of learning techniques in vocabulary learning and teaching. Another advantage of using techniques maybe that. Once this capacity is acquired, children may apply the vocabulary to other areas of language. Thus, vocabulary learning practises are acknowledged as a means of empowering learners to take ownership of their vocabulary acquisition. Vocabulary learning tactics may assist pupils in memorising and acquiring new words when studying a foreign language. Students may increase their vocabulary knowledge by using the Semantic Mapping approach for various vocabulary items.

Additionally, Yuruk (2012) argues that Semantic Mapping needs collaboration between the instructor and students in order to create a diagrammatic map that demonstrates the links between teacher-suggested vocabulary, student-generated terminology, and vocabulary present in a reading text. Semantic mapping incorporates background information about the issue into the students' understanding, offers an
effective method for reinforcing essential phrases, and enables students to incorporate new language into their current schemes. Additionally, semantic-mapping enables the student to acquire new words via the use of previously learned terms in a semantically connected network.

### 2.3.3. Studies Related to the Use of Word Map in Teaching Vocabulary

According to a recent study, it may be difficult to teach vocabulary since many teachers are unsure of the best practises for vocabulary instruction and, on occasion, they are unsure of how to start emphasising word acquisition during instruction (Berne \& Blachowicz, 2008). Learning a language is essential in order to teach words because words are the foundation of all languages (Thornbury, 2002). Without employing words, it is essentially difficult to acquire a language; in fact, even human communication depends on them. Without words, learning a language is essentially impossible; in fact, even human communication depends on words. The significance of vocabulary growth in linguistic instruction is acknowledged by both teachers and students (Walters, 2004). One of the most contentious topics in English language training is vocabulary instruction. In the course of teaching and learning, teachers will run against obstacles. They have difficulties in determining how to instruct kids in a way that outcomes are satisfactory. The instructor must plan and research the strategies that will be used with the kids. A skilled instructor should be prepared with a variety of cutting-edge strategies. Teachers must be able to grasp the content in order to make it understandable to students and to pique their interest and enthusiasm for the classroom teaching and learning process.

Advanced pupils frequently have a large receptive vocabulary, claims Morgan (2000). Despite this, they frequently have a limited vocabulary that limits their capability to utilize the words they do recognise efficiently. The difficulty of advanced pupils to effectively communicate in the target language as a result frequently causes them to get frustrated.

According to Sökmen (2000), the idea was that vocabulary growth would occur naturally as a result of practising other language abilities. However, the flaws in this strategy were apparent very quickly. It has been demonstrated that the process of
determining word meaning from context is slow and error-prone, and even accurate predictions are not always followed by long-term memory.

The study's objective is to evaluate the effectiveness of word association as a method for teaching vocabulary to L2 learners. The research was based on the idea that even semantic associations in the language can be used in training to help students develop lexical qualities beyond only basic meaning or context, leading to a higher calibre of vocabulary knowledge. Word associations as a methodology for vocabulary training may provide a number of advantages over more traditional vocabulary learning methods like word lists.

Sökmen (1993) indicate that explicit instruction of word associations enables pupils to manage their vocabulary by identifying, organising, and recording the most valuable lexical objects encountered in the input. Second, word association teaching considers words as components of a wider lexical network.

The way that vocabulary is typically taught relies on identifying and logging particular terms. The ability to create a one-to-one correlation between words and nonword elements or between the words is only one aspect of word knowledge. "Being able to utilise a word requires an understanding of its collocational range and its limitations." Collocations are critical in establishing and defining the meaning of words (Michael Lewis, 1993).

As Bahns (1993) observed, words acquire meaning by their association with other words. For instance, it is almost hard to define the term "pen" without including writing. Vol. 4, No. 1, May 2008, The East Asian Learner 3 Thirdly, word association training may assist learners in increasing their knowledge of lexical systems and decreasing their dependency. While certain collocations are universal, others are often language-specific.

Fourthly, as Nattinger (1988) pointed out, word association education may lessen pupils' cognitive load during text comprehension. By considering words as a network, students can make connections between new material and what they already know, therefore activating their past knowledge. Additionally, knowledge of associations enables pre-assembled portions of words to be recalled from memory.
"The ability to fragment data considerably reduces the amount of processing required for text understanding" (Willingham 2006).

The lexical cohesiveness of the text should become more apparent to learners as a result of explicit teaching in word associations, particularly with regard to superordinate and subordinates, which is anticipated to improve understanding. The effectiveness of learning is positively correlated with associational power (Uçgun, 2006). "While studying anything, conjuring up some analogies in the imagination helps bring the topic to life. As a result, while teaching the term, highlighting the associations the word might elicit in the student's mind aids in the student's comprehension of complex words represented by simple symbols ".

Four major aspects contribute to the memory's ability to retain newly acquired information:

1. Proximity: As previously said, the recently acquired knowledge is simpler to recall. As a result, it is required to review the vocabulary terms from the previous session.
2. Priority: Knowing that the brain retains the most information about the first and last item taught simplifies the teacher's task of providing new knowledge to pupils. This approach focuses on fresh vocabulary training in the starting and conclusion of the curriculum, as well as studies to help students retain preceding taught terms.
3. Conspicuousness: Topics that are strange, odd, or startling are simpler to recall.
4. Connection: Topics that are connected are simpler to recall than ones that are unrelated. Thus, the existence of precise link the words taught and the revelation to learners of these connections will aid students in memorization of words by association.

Given this memory trait, a number of strategies may be employed to teach pupils language that is both enjoyable and difficult to forget. For instance, instructional games might be used in courses to do this. The association regions of the brain are critical for ensuring that learning is meaningful and persistent. The more important a piece of content is, the more easily it may be mastered.

According to Gündüz (2015), this scenario, which may be represented as associative meaning, is explained by the memories associated with the newly acquired
information. What we refer to as important learning is also the process through which the learner transfers newly acquired knowledge to lasting memory by linking it with previously stored data.

Finally, by observing previous studies, it can conclude that word mapping is useful in teaching vocabulary to EFL learners if proper techniques are used, like semantic mapping, as studied in the chapter. Simultaneously, teachers face some challenges in teaching vocabulary to students, but however, it could be managed if proper technique is implemented by them as well as students' learning power and motivation also contribute to learning vocabulary.

## 3. METHODOLOGY

When it comes to collecting data, this chapter explains how it was done. For each of the populations and samples studied in this research, the chapter gives a thorough explanation of their characteristics, as well as a breakdown of the experimental design used and all of their relevant data.

### 3.1. Experimental Design

The experiment design is an analysis tool of influential collections that can be utilised in various experimental situations (Simmons et al., 2011). In table 1, the Pretest and post-test, Equivalent-Group Design is the experimental strategy used in the investigation. According to this study's Experimentation Design, the following procedures are to be followed:

1. The experiments were created by randomly selecting two groups of pupils.
2. Ensure that the experimental and control groups of students have been equalized in certain factors.
3. Experimentation is the only group to get the independent variable.
4. Teach the controlled experiment the same information as the experimental class, but typical.
5. Post-test the two groups of students who were a part of the study.
6. Analyse the acquired data using statistical methods to arrive at the final findings.

Table 1. The Groups

| Groups | Independent variable | Post test |
| :---: | :---: | :---: |
| EG. | Word Map Activities | Post test |
| CG. | Conventional Method | Post test |

### 3.2. Population and Sample

A sample is a subgroup of a population, where respondents have a certain set of traits (Banerjee \& Chaudhury, 2010).

Participants in this research comprised kids in the 6th grade from the primary school children from the Baghdad Governorate in the academic year 2021-2022, which included students from sections A, B, and C disturbed by a total of 165 but study only reached 125 students. Total hundred twenty-five students in each group have been randomly chosen to participate. Only 50 students for each group have been adopted in EG and CG and 25 for pilot study. There are thus 125 participants in total, which is $69.56 \%$ of the initial population (table 2).

Table 2. The Population and Sample

| No. of <br> Population | No. of <br> Experimental <br> Students | No. of Control <br> Students | No. of Pilot <br> Students | No. of <br> Sample |
| :---: | :---: | :---: | :---: | :---: |
| 165 | 50 | 50 | 25 | 125 |

### 3.3. Equivalence of the Groups

An equivalency group is a collection of undefined cells with the same capacity for differentiation or the ability to take on distinct destinies. Currently, we believe that equivalence groups are only applicable to cells of the same heritage, commonly known as brother units (Chamberlin \& Sternberg, 1993). The following factors have been balanced in the present study:

### 3.3.1. Students' Age

No age difference between the two groups of pupils until the twenty-sixth month of February 2022 (Appendix A). When a t-test formula for independent groups was used, no discernible difference in age between the EG and CG was discovered. The standard deviation of the treatment group is (4.35) while the mean value of the EG and CG is (206.30), and the error margin is (4.35), respectively (3.42). (6.90) (0.45) is reported to be lower than the calculated $t$-value of (2.00) somewhere at the amount of autonomy (98) as well as the level of significance ( 0.05 ). As can be seen from the table 3 , the pupils in the 2 groups are of a similar age.

Table 3. The test of Students' Age

| Group | No. of <br> Students | Mean <br> Scores | SD. | T-Value |  | DF |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| EG | 50 | 204.50 | 5.53 | Calculated | Level <br> of <br> Significa <br> nce |  |
| CG | 50 | 205.23 | 6.90 | 0.45 | 2.00 | 98 |

### 3.3.2. Education level of Parents

### 3.3.2.1. Education level of Father

The level of education of the fathers of the students was compared using the chi-square calculation to see if there was a significant difference or not. There are no statistically substantial distinction groups in the educational level of their fathers, as indicated in the table, according to the chi-square of a Computed value (2.04) and the tabulated value (11.07). (table 4).

Table 4. The Chi-Square Test of Education of Father


### 3.3.2.2. Education level of Mother

Both groups' mothers' educational attainment is equivalent when the chi-square formula is used. Because of the level of flexibility (5) and significance level (11.07), the computed value is less than the significance level i.e. 0.05 . As indicated in the table 5 , there is no discernible disparity in the variables.

Table 5. The Chi-Square Test of Education of Mother

| Level of Education | Group |  | Chi-Square Value |  | DF | Level of Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | EG. | CG. | Computed | Tabulated |  |  |
| Illiterate | 7 | 4 |  |  |  |  |
| Primary | 11 | 13 |  |  |  |  |
| Secondary | 18 | 16 |  |  |  |  |
| Diploma | 3 | 4 | 2.52 | 11.07 | 5 | 0.05 |
| Bachelor(college) | 8 | 9 |  |  |  |  |
| Higher studies $\underbrace{\text { (masters }}_{\text {doctors }}$ | 3 | 4 |  |  |  |  |
| Total | 50 | 50 |  |  |  |  |

### 3.3.3. The Students' Mean Scores in the Pre-Test

The EG and CG were tested using t-test to conduct the pre-test of student's mean. The mean of experimental group score was 42.66 , while the standard deviation was (5.85). No economical substantial variations in groups' levels of vocabulary performance in the pre-test at a significance level of (0.05). As shown in the control group's mean score of 43.32 and standard deviation of 5.23. The tabulated value (1.98) is higher than calculated value ( 0.95 ) and the degree of freedom (98) which shows that the two groups in the pre-test are equivalent (table 6).

Table 6. The pre-test of students

| No. of Students | Mean <br> Scores | SD. |  | T-Value | DF | Level of Significance | Group |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 42.66 | 5.85 | Calculated | Tabulated |  |  | EG |
| 50 | 43.32 | 5.23 | 0.95 | 1.980 | 98 | 0.05 | CG |

### 3.4. Instructional Material and Students Instruction

The researcher instructed students in the EG and CG. The experimental and control were instructed to use Word Map Activities for twelve weeks. Both classes are required to attend five hours of lectures every week. The experiment was implemented on November 1, 2021, and ended on February 26, 2022. The accepted resources included teacher, student, and activity books from the current sixth class in Iraqi English.

### 3.5. Achievement Test

The content of instructional material and behavioural objectives were taken into account when creating an accomplishment test. It has six questions and is graded out of 100 (table 7).

Table 7. The Specifications of the Contents, Behavioural, Items, and Marks of the Post test

| Level | No. of Question | Contents | Behavioural objectives | No. of Items | Marks |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | True or False | The ability of students to present the correct answers. | 10 | 20 |
|  | 2 | Multiple Choice | The ability of students to choose the correct answers. | 10 | 20 |
|  | 3 | Multiple Choice | The students ability to choose the correct answers. | 10 | 20 |
|  | 4 | Multiple Choice | The students' ability to circle the correct answers. | 10 | 20 |
|  | 5 | Completion | The students' ability to complete the correct answers. | 10 | 20 |
| Total | 5 |  |  | 50 | 100 |

### 3.6 Scoring Scheme of the Post test

Answers are graded on a scale of 100 points. Each successful answer is worth two points, and each incorrect response is worth zero points, Reading comprehension, Textbook, vocabulary, grammatical, and Spelling (table 8).

Table 8. Scoring Scheme of the Post test

| Criteria | Qualities | Scores | Number of Items | Mark |
| :---: | :---: | :---: | :---: | :---: |
| Reading Comprehension | Very good | 2 | 10 | 20 |
|  | Weak | 0 |  |  |
| Textbook | Very good | 2 | 10 | 20 |
|  | Weak | 0 |  |  |
| Vocabulary | Very good | 2 | 10 | 20 |
|  | Weak | 0 |  |  |
| Grammar | Very good | 2 | 10 | 20 |
|  | Weak | 0 |  |  |
| Spelling | Very good | 2 | 10 | 20 |
|  | Weak | 0 |  |  |
| Total |  |  | 50 | 100 |

### 3.7 The Validity

The ability of the test to accurately reflect the feature it is intended to examine is referred to as validity. By contrasting the trait being assessed with the requirements and credentials of the position, can assess a test's validity. When a test is valid, its results have meaning (Ewing \& Handy 2009).

As stated in the appendices, the exam was reviewed by a jury of linguists, educators, and writers in English to ensure its legitimacy on its face (F). Each jury's suggestions and opinions have been taken into account.

### 3.8. Pilot Administration of the Test

Before conducting your main study, pilot testing allows you to evaluate your research strategy with a small series of subjects to see whether it is effective (Dikko, 2016). Even though it's an extra step for research projects, it may even be well worth the effort. During the pilot study, the researcher hopes to learn more about the instrument and estimate its time to complete all of the test items. The
test's discriminating strength and difficulty level and the clarity of test instructions are all part of the evaluation procedure.

Therefore, a random sample of (25) students from each group has been tested. Results show that it takes 50-60 minutes to complete all of the test items, and the test's instructions are clear. The findings of the pilot test indicate that the post-test items are acceptable.

### 3.9. Reliability of the Achievement Tests

In testing, reliability states to the group of test takers' scores remain consistent across tests that have been given to them multiple times (Livingston \& Lewis, 1995).

In Ravitch (2007), reliability is testing, which measures internal consistency. There should be no difference in test scores if students take the same test form on two separate days. The post-reliability tests are assessed using the Alpha-Cronbach formula. As it turns out, the coefficient is adequate (0.86).

### 3.10. Analysis of the Test Items

It is necessary to assess the test items in order to ascertain two crucial features: the difficulty level and the discriminating power.

### 3.10.1. Testing of Difficulty level

The proportion of students who accurately answered each question is used to gauge the difficulty level of a question (Rosas, 2000). The degree of difficulty of an item is assessed by how challenging or simple it seems on several assessments. The proportion of students who successfully answered the questions is all that matters. The best test item is one with a difficulty level between 0.15 and 0.85. (Brown 2010). Test item DL varies around 0.46 to 0.69 , as indicated in table 3.10 , which is regarded to be satisfactory.

### 3.10.2. Discrimination Power

In order to calculate the Discrimination Index, deduct from the students in the higher and lower groups that correctly answered a question. After this, divide the total by the students in each class (example, there are five students in each group) (Olutola, 2015). In other words, if both high and low trained students appropriately rate an item, supposed to have a poor capability of discriminating.

In other words, item discrimination is the distinction between superior and inferior testers with regard to an item. An item has a great capability for discriminating if it collects the correct replies from the top students and the incorrect responses from the bottom students. According to Brown (2010), the power of unfair treatment will not be zero while the high power of bias will be near to 1.0 .

According to the findings, the permissible range for the test item DP is between $0.23-0.53$. The test elements in DP and DL are clearly illustrated in the table below.

Table 9. Post-test Items- The Difficulty level and the Discrimination Power

| Question | Item | Higher | Lower | Difficulty <br> Levels | Discrimination <br> Power |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q1 | 1 | 9 | 6 | 0.57 | 0.23 |
|  | 2 | 9 | 5 | 0.53 | 0.30 |
|  | 3 | 9 | 6 | 0.53 | 0.23 |
|  | 4 | 10 | 4 | 0.53 | 0.46 |
|  | 5 | 11 | 5 | 0.61 | 0.46 |
|  | 6 | 9 | 4 | 0.60 | 0.30 |
|  | 7 | 9 | 6 | 0.56 | 0.52 |
|  | 8 | 11 | 5 | 0.60 | 0.45 |
|  | Question | 9 | 10 | 4 | 0.53 |
| Q2 | 10 | 9 | 4 | 0.51 | 0.30 |
|  | Item | Higher | Lower | Difficulty <br> Levels | Discrimination |
|  | 1 | 11 | 5 | 0.50 | 0.30 Power |
|  | 2 | 8 | 5 | 0.53 | 0.30 |
|  | 3 | 9 | 4 | 0.57 | 0.53 |
|  | 4 | 11 | 6 | 0.61 | 0.30 |
|  | 5 | 10 | 5 | 0.53 | 0.30 |


|  | 6 | 8 | 4 | 0.53 | 0.45 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7 | 10 | 4 | 0.53 | 0.30 |
|  | 8 | 10 | 5 | 0.61 | 0.27 |
|  | 9 | 9 | 6 | 0.56 | 0.43 |
|  | 10 | 8 | 5 | 0.53 | 0.30 |
| Question | Item | Higher | Lower | Difficulty Levels | Discrimination Power |
| Q3/ | 1 | 8 | 4 | 0.46 | 0.30 |
|  | 2 | 11 | 6 | 0.65 | 0.38 |
|  | 3 | 8 | 5 | 0.50 | 0.23 |
|  | 4 | 9 | 6 | 0.57 | 0.23 |
|  | 5 | 10 | 6 | 0.61 | 0.30 |
|  | 6 | 8 | 5 | 0.45 | 0.25 |
|  | 7 | 8 | 5 | 0.50 | 0.30 |
|  | 8 | 9 | 6 | 0.52 | 0.45 |
|  | 9 | 10 | 5 | 0.60 | 0.33 |
|  | 10 | 9 | 4 | 0.51 | 0.43 |
| Question | Item | Higher | Lower | Difficulty Levels | Discrimination Power |
| Q4/ | 1 | 9 | 5 | 0.53 | 0.30 |
|  | 2 | 10 | 6 | 0.61 | 0.38 |
|  | 3 | 9 | 6 | 0.57 | 0.23 |
|  | 4 | 11 | 7 | 0.69 | 0.23 |
|  | 5 | 9 | 6 | 0.57 | 0.30 |
|  | 6 | 4 | 11 | 0.63 | 0.23 |
|  | 7 | 9 | 4 | 0.52 | 0.28 |
|  | 8 | 10 | 5 | 0.60 | 0.30 |
|  | 9 | 9 | 5 | 0.51 | 0.32 |
|  | 10 | 10 | 6 | 0.61 | 0.30 |
| Question | Item | Higher | Lower | Difficulty | Discrimination |
| Q5/ | 1 | 10 | 7 | 0.65 | 0.30 |
|  | 2 | 9 | 5 | 0.53 | 0.30 |
|  | 3 | 9 | 6 | 0.57 | 0.23 |
|  | 4 | 10 | 6 | 0.61 | 0.30 |
|  | 5 | 11 | 6 | 0.65 | 0.23 |
|  | 6 | 9 | 7 | 0.50 | 0.42 |
|  | 7 | 10 | 7 | 0.63 | 0.30 |
|  | 8 | 9 | 6 | 0.52 | 0.29 |
|  | 9 | 11 | 5 | 0.60 | 0.33 |
|  | 10 | 9 | 6 | 0.58 | 0.23 |

### 3.11. Final Administration of the Post Test

The exam is eventually administered to two groups of pupils on January 26th, 2022, after the pilot administration, validity, and reliability have been verified (experimental and control). Students who took part in the study were given exam sheets, instructed to read the instructions attentively, and given a limited amount of time to respond. All of the test papers were collected after the testing period and assessed in accordance with the established scoring methodology.

## 4. ANALYSIS OF DATA

The data was analysed according to the aims of the study in order to verify the hypotheses, which are presented in the following:

1. Mean scores of experimental and control groups have differences between Word Map Activities and conventional method in teaching vocabulary in the pre-test.
2. Mean scores of experimental and control groups have differences between Word Map Activities and conventional method in teaching vocabulary in the post-test.
3. Mean scores of experimental groups have differences between the recognition level and production level in vocabulary achievement in the post-test.
4. Mean scores of experimental groups have differences between pre and post-tests in vocabulary achievement of students.

### 4.1. Findings of Research Question One

Table 10. Word Map Activities and Conventional Methods (Pre-test)

| Group | No. of <br> Students | Mean | SD. | T-Value |  |  | DF |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| EG | 50 | 42.66 | 5.85 | Calculated | Tabulated |  |  |
| CG | 50 | 43.32 | 5.23 | 0.95 | 1.980 | 98 | 0.05 |

The t -test has been used to determine the difference between Word Map Activities and the conventional method of teaching vocabulary in the pre-test. Table 10 illustrates the $\mathrm{EG}(\mathrm{M}=42.66, \mathrm{SD}=5.85)$ and the $\mathrm{CG}(\mathrm{M}=43.32, \mathrm{SD}=5.23)$ of such methods, however the calculated (0.95) and tabulated t -value (1.980) indicates large gap between the two groups' academic success with significance level (0.05) and degree of freedom (98). Thus, the first hypothesis is accepted as it shows mean scores of experimental and control groups have differences between Word Map Activities and conventional method in teaching vocabulary in the pre-test.

### 4.2. Findings of Research Question Two

The t -test has been used to determine the difference between Word Map Activities and the conventional method of teaching vocabulary in the post-test. Table 11 illustrates the $\mathrm{EG}(\mathrm{M}=63.57, \mathrm{SD}=7.75)$ and the $\mathrm{CG}(\mathrm{M}=54.60, \mathrm{SD}=4.82)$ of such methods, however, the calculated (5.04) and tabulated $t$-value (1.980) indicates a large gap between the two groups' academic success with a significance level (0.05) and degree of freedom (98). Thus, the second hypothesis is accepted as it shows that mean scores of experimental and control groups have differences between Word Map Activities and conventional methods in teaching vocabulary in the post-test.

Table 11. Word Map Activities and Conventional Methods (Post-test)

| Group | No. of <br> Students | Mean <br> Scores | SD. | T-Value |  |  | Level of Significance |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| EG | 50 | 63.57 | 7.75 | Calculated | Tabulated |  |  |
| CG | 50 | 54.60 | 4.82 | 5.04 | 1.980 | 98 | 0.05 |

### 4.3. Findings of Research Question Three

The two paired test has been used to analyse the difference between recognition and production level of teaching vocabulary in the post-test. Table 12 illustrates the EG at the recognition ( $\mathrm{M}=41.08, \mathrm{SD}=12.24$ ) level is higher than the production ( $\mathrm{M}=48.42, \mathrm{SD}=12.37$ ) level, however, the calculated (1.96) and tabulated t -value (2.0) indicates a large gap between the two groups with a significance level (0.05) and degree of freedom (49). Thus, the third hypothesis is accepted as it shows mean scores of the EG have differences between the recognition level and production level in vocabulary achievement in the post-test.

Table 12. Experimental Group of Recognition and Production Levels (Post-test)

| Levels | No. of EG <br> Students | Mean | SD | T-Value |  | DF | Level <br> Significance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Recognition | 50 | 41.08 | 12.24 | Calculated | Tabulated | 49 | 0.05 |  |
| Production |  | 48.42 | 12.37 | 1.96 | 2.00 |  |  |  |

### 4.4. Findings of Research Question Four

Table 13. Experimental Group (Pre-test and the Post-test)

| The test | No. of | Mean | SD. | T-Value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Scores |  |  |  | Level <br> Significance |
| Students |  |  |  |  | of | DF |
| :--- |

The two paired test has been used to analyse the difference between pre-test and post-test in vocabulary achievement of students. Table 13 illustrates the post-test ( $\mathrm{M}=63.57, \mathrm{SD}=7.75$ ) score is higher than the pre-test $(\mathrm{M}=42.66, \mathrm{SD}=5.23)$ score, however, the calculated (5.8) and tabulated t -value (2.0) indicates a large gap between the two groups with a significance level (0.05) and degree of freedom (49). Thus, the fourth hypothesis is accepted as it shows that mean scores of EG have differences between pre and post-tests in vocabulary achievement of students.

### 4.5. Summary

This chapter highlighted the findings from the students learning vocabulary using word map activities. The sample (100) was equally divided in the control (50) and experimental group (50). The findings are collected and compared with each
group. The data were analysed on research questions and hypothesis of the study. After analysing the data, the next chapter focus on the discussion on the collected data among groups.

## 5. DISCUSSION

The current research demonstrates that the learning achievement through wordmap activities (experimental group) is higher than the traditional teaching method (control group). According to these results, the use of the word mapping activities in the context of vocabulary teaching has a statistically significant influence, as shown by effect size, which is categorized as highly effective in terms of its effect on learning outcomes. Introducing the phrase visualization method into the classroom helped students gain a more in-depth learning of new words, involved them in thinking about the connection between statements, and enabled them to participate more students in the learning process; furthermore, learners will be asked to be more innovative in modelling the relation among both words, as evidenced by the outcomes of the studies. This indicates that word map exercises outperform more conventional approaches in raising students' proficiency in vocabulary acquisition. The following elements may be responsible for the increase in vocabulary achievement of the pupils as a result of Word Map Activities:

1. Word Map Activities are simple to use by the teachers and the students.
2. It is supple and engaging to use.
3. By utilising pictures, words, lines, movies, loudspeakers, symbols, and recorded teachings, it gets the brain to function simultaneously.
4. It boosts students' self-assurance in their capacity to study.
5. Students benefit from greater comprehension, vocabulary retention, and English memorization.

The current study's findings are consistent with the following:

1. Word Map Activities encourage students to create and connect better communication among the people
2. Word Map Activities efficiently improve students' knowledge as well as the ability to read, write, and learn vocabulary.
3. Word Map activities are better than traditional methods in teaching vocabulary to students.

Since the current study is limited to The Impact of Word Map Activities on Primary School with respect to Vocabulary Achievement of learners with many other determinants, only the following prominent ones were given here.

In the current study, overall results indicates that students' limited vocabulary knowledge may be regarded as one of the most significant difficulties they encounter. This is in accordance with the issue identified by Huy (2015), who claims that a lack of vocabulary understanding has a positive effect on the excellence of communication since students don't really know how to properly study the language. It is certain that the student will make some errors if they do not understand the elements of the exam that must be assessed in writing. As a fact language perform a significant part in the writing procedure. Richard (2002) defines vocabulary is a critical part of language competence as it gives a basic for speaking, listening, reading, and writing to learners. It follows because writing can actually be taught in isolation, but rather needs to be taught in group with the other skills and components. A good vocabulary is critical to the quality of one's writing since the number of words one uses is a fair indicator of one's intellect as well as the quality of one's writing. As Baker (1971) points out, "The number of words one use is a fairly good indicator of your intellect." Writing is a talent that may be put to use. It is very advantageous to kids since it allows them to communicate their thoughts in written form rather than verbally. According to the description above, vocabulary serves a variety of important roles in increasing language skills, including the development of writing abilities. The findings support the theories of Rivers who asserted that writing in a foreign language has become a complex and difficult activity even though writing encompasses meaningful portions of language: phrases, sentences, and grammar, along with the process of transferring those portions into written forms (Subroto 2013). The objectives of writing skills education may be met via a variety of methods.

Harmer (2004) says that there are two approaches to teaching writing. Both the result of the process of writing as well as the technical writing itself is being focused on by these individuals. Teachers, on the other hand, must pay attention to the different phases of any piece of writing throughout the writing, and students must understand the standards for writing in order to produce high-quality writing. Prior to utilizing the updated word map, the student's writing ability was poor. It is common for some pupils to have problems while writing English paragraphs. The usage of a modified word map
in the process of developing the writing abilities of children results in favourable reactions from the students who participate. It may be determined that there is an improvement in writing skills of students after they have been instructed using a personalised word map, and that there is a statistically positive difference between the outcomes of the pre-test and post-test. This suggests that the mean student score on the post-test was greater than the mean student score on the pre-test. The word map method is an effective way in teaching vocabulary because it involves learners in understanding the connections between the words they learn. (Graves, 2006). Semantic mapping, concept mapping, word clusters, and other terms are just a few of the titles given to the word mapping method. Depending on the language being taught, the learning objectives, and the students' grade levels, the strategy may need to be changed. Depending on the term, it might be more appropriate to have students look up its synonyms, antonyms, and historical context while it may be less appropriate to also have students investigate the instances and non-instance of the word when studying other words.

In accordance with the findings, a number of investigations have been carried out. According to Nia, students in the seventh grade were taught vocabulary via the use of the Mapping Word Technique by their teachers. The experimental design utilized in this research consisted of two groups. In this research, it was discovered that teaching students' vocabulary via the mapping words method was more successful than teaching students' vocabulary through the non-mapping terms method when it came to increasing the students' vocabulary knowledge.

Ellamathi (2011) performed a study which was titled "The Effects of Someone using Semantic Map technique upon Reading Comprehension amongst Lower and upper secondary Learners". The study aims to evaluate the efficacy of the semantic map method on reading comprehension in lower secondary pupils. Methods of inquiry have been developed. A secondary goal of this study is to assess how students view this approach. Using a semantic map to aid with reading comprehension, the researchers carried out a qualitative \& quantitative investigation of the impacts of reading comprehension in this study. It was decided that each therapy would be given for two weekends in a row and that each treatment would be divided into two sessions of about forty minutes each, with every period approximately equal to one week in a row. Test 2 was given to the responders the following week, immediately after the
completion of the treatments. Finally, responders were questioned, and their responses were documented. In the research, the investigator utilized two different methods of data collection, which were Test 1 and Test 2, as well as an interview. A descriptive statistic is a kind of statistical analysis that is intended to define the overall performance and arrangement of data. In summary, the researcher discovered that the adoption of the semantic map has a significant effect not only on students' test scores but also on their knowledge of reading comprehension strategies, as shown by the findings of this study. All students felt that using this method provides them with the self-confidence to solve any reading and comprehension questions that come their way. Following the implementation of this technique, participants reported feeling more confident in their abilities and being able to solve more complex reading comprehension as a consequence.

The third research, entitled "An examination of the impact of Semantic Map Strategy Instruction on the vocabulary knowledge of intermediate students", was carried out by Muhammad Hossen (2010) was published in the journal Educational Researcher. The aim is to evaluate the effect of the semantic mapping technique teaching on the vocabulary knowledge of Iraqi English students via observation. Because the educators had previously been assigned to groups based on certain characteristics, such as their results on the placement exam or their completion of the prior course, this is exploratory research with an intact-factorial design rather than a descriptive study. There are no real randomizations since the students already had been put in courses based on certain factors, such as their results on the placement exam or their successful execution of the previous course, and so the system is intact. In conclusion, the research found that the semantic mapping method had a major effect on the learning of vocabulary in the participants' classes. The findings of this study also show that gender has no effect on how well language is learned when a semantic mapping technique is used to teach it.

According to the results of all the above studies, it can be said the use of word map activities assists students in expressing knowledge, particularly in the area of language representation. Not only will students find it easier to concentrate on their studies, but the instructor will also find it easier to convey the topic or content.

## CONCLUSIONS, RECOMMENDATIONS, LIMITATIONS, AND SUGGESTIONS FOR FUTURE STUDIES

## Conclusions

The vocabulary achievement of the students in the word map activities is better than traditional method teaching. As Word Map Activities are more creative and students can have more attention. Word Map Activities is helpful to improve the social communication as well as enhance participation in the activities among students in the class. The motivation and involvement among students also increased in the class by using the Word Map Activities. Utilizing Word Map Activities aid primary school students to know the meaning of vocabulary in a good way. Students show an optimistic answer towards Word Map Activities since they are easy and simple as well as create a joyful environment.

## Recommendations of the Study

The findings for the study could be used for the curriculum designers to give more attention to Word Map Activities. EFL teachers are recommended the adoption of Word Map Activities in teaching vocabulary. EFL teachers are also recommended to advance their ways to know the most significant ones through which they can use Word Map Activities. English teachers should be skilled on using Word Map Activities in teaching vocabulary to increase the achievement of students. As per findings, EFL teachers are also recommended to focus on the methods and phases of Word Map Activities rather than using the traditional methods. Workshops can be held for the teachers to train them on such activities and methods of teaching. More attention should be given by English teachers, The methods of teaching literary texts need to receive more consideration from English teachers, English curriculum designers, and English supervisors.

## Implications of the Study

Using word map exercises to teach and acquire a vocabulary is very effective and entertaining since it motivates students to learn and apply new words, concepts, notions, and themes on a regular and automatic basis.

The word map exercise is a developmental aid for primary students in which main types release from a core notion and sub-categories are portrayed as smaller divisions of bigger divisions. It's a visual tool for creating ideas, organising thoughts, taking notes as well as developing concepts. It can be used by teachers to improve student learning. It's an illustrated tool that helps visual learners manage their thoughts, direct their knowledge, and make new learnings. It is a skill that is applicable to people of all abilities and covers all subject areas. It helps students organise, prioritise, and integrate the information offered in a course.

Word maps were a type of semantic map that had a lot of potential for helping students in the experimental group recognise the semantic relationships between words and their frequent collocations. These students were able to pay attention to the semantic similarities and contrasts between words through word maps, both directly and indirectly.

Another important characteristic of word maps that helped experimental group students expand their vocabulary was that they were personalised and individualised based on the learners' personality traits, learning styles, and acquisition preferences or tendencies. This study attempted to invite two groups of primary students to create their own word maps for words offered in various units of their textbooks. Using diagrams, colours, shapes, lines, and instructions drawn from individual learning styles, each group might discuss and try to improve their vocabulary.

## Limitations of the Study

The concept was limited to word map activities in teaching vocabulary to students while more strategies can be focused on the study. Existing studies were also found limited on the research topic. The study was limited to 125 students whether tried for 150 students as respondents and divided into two groups i.e. EG and CG. More use of time and resources while collecting the quantitative data makes the study
period lengthy. Lack of cooperation from the respondents was also found by the researcher during the survey which is the major pitfall in collecting the data.

## Suggestions for Future Studies

The researcher makes few suggestions for other researchers interested in doing relevant studies in the future. First and foremost, since the usage of word maps has been changed to be more suitable for writing instruction, particularly in terms of boosting the element of vocabulary, it appears that future researchers will find it fascinating to apply this approach in a variety of English skills. Furthermore, it is recommended that future researchers perform their study at a senior high school that includes pupils who have a strong command of the English language in order to ensure the best possible results from their studies. Furthermore, it is recommended that the next researcher use word-bridging in the long-term study in order to observe the various impacts of word map on students' other language abilities.

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## APPENDIX

## Q1/ put the correct word

1- Dad doesn't want to buy a $\qquad$ .

2- The ancient $\qquad$ didn't know how to make paper.

3- The another word for a cook in a restaurant $\qquad$ .

4- $\qquad$ is all around us at home and in the classroom.

5- Ahmed prefers $\qquad$ service.

6- The first paper was made in $\qquad$ .

7- The $\qquad$ can share $\qquad$ with their family.

8- The breakfast service start at $\qquad$ .

9- We can't use old $\qquad$ to make new paper.

10- Conserve means $\qquad$ .

Q2/ Answer the following statement by (True) or (False)
1- A surgeon is a doctor who does operations.
2- The doctor wear a uniform at work.
3- She is shopping for a white coat for work.
4- Her daughter is buying a thick sweater.
5- Most leather comes from cows .
6- The word cotton comes from Arabic word kutun.
7- Paper is usually made from cotton.
8- Wool comes from sheep and goats.
9- Conserve means look after .
10- We can't use old paper to make new paper .
$\mathrm{Q} 3 /$ Read and choose the correct answer

1-Pilot ( drives /flies ) a plain .
2-( Waiter / teacher ) works at school.
3- (Builder /engineer ) builds houses for people .
4-Doctors help people when they are (ill / happy ).
5-A pilot sits in the ( wing / cockpit ).
6-My mother is a nurse in a big (restaurant / hospital ).
7-Wool comes from ( sheep /tree ).
8-He is wearing black denim (saucepan /jeans ).
9-I have (too /two )sisters and three brothers .
10-Keys are made from ( clay / metal ).

Q4/ Read these sentences and circle the correct choice
1-These ---------- too small for me .(are /is / am ).
2-I go --------------School every day .(too /to /two ).
3-Rubber --------------from rubber tree ( come / coming / comes).
4-It is $\qquad$ ( sofa black leather/a black leather sofa /leather black sofa)

5-I have a brother $\qquad$ I don't have a sister .(So / but / and ).
$6-$ $\qquad$ skirt is prettier ( that, those ).

7- The TV is on ,--------- we aren't watching it (and , but ).
8-Rain boots ---------of rubber (is made, are made ).
9-I'm ----------a story now ( reading ,read ).
10-Oil $\qquad$ from ground (come ,comes )

| 1-Thick X --------- | hard X--- |
| :---: | :---: |
| 2- Cheep X---------- | light X --------------- |
| 3- Long X ---------- | big X --------------- . |
| 4-Small , smaller | tall,--------------- |
| 5-I am, I'm | he is -------- |
| 6-Keys -metal | paper ----- |
| 7-Jug ,glass | T-shirt --- |
| 8- car , cars | dress ---------------- |
| 9-ru- -er | w--d |
| 10- earl X ------------ | warm X---- |

Mona Taleb, Sanaa Khamees, and Aseel Khamees Ahmed, assisted in conducting the questionnaire and analysing the data

## CURRICULUM VITAE

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