

CHAPTER I

INTRODUCTION

1.1 Background of the Study

One of the most crucial aspects of learning a language is mastering vocabulary of target language. Foreigners who study a new language without first mastering the vocabulary will find it difficult to understand, and if they cannot understand, they will not be able to grasp the language. Vocabulary is one of the components that must be taught to students when learning a new language, such as English, because vocabulary plays an important role in all languages. Furthermore, some experts or academics believe that vocabulary is more important than grammar because if your interlocutor can understand what you are talking about even though your grammar is wrong, it doesn't matter. According to Hornby (2006:1645), vocabulary is defined as "all the words a person knows or uses, as well as all the words in a specific language."

By mastering vocabulary, it is not only possible for students to speak the language but also to acquire other competencies such as reading, writing, and listening. Students must have a sufficient vocabulary to communicate effectively, and it will be difficult to acquire other skills without a strong command of and knowledge of terminology. Students learning English must be familiar with vocabulary since understanding words allows them to experiment with how to use them to communicate and express themselves. In reality, learning the target language's vocabulary is crucial, as vocabulary is inextricably linked to other components of the language such as writing, listening, speaking, and reading.

Teaching vocabulary is a crucial aspect of language acquisition, according to Alqahtani (2015:21), because language is dependent on vocabulary, and it is difficult to learn a language without acquiring vocabulary. According to Kabiell (2012), some teachers and students are unaware of the importance of vocabulary and vocabulary learning practices in learning English. In fact, in order to communicate effectively, students must have a vast vocabulary in order to articulate what they want to say. According to Thornbury (2002:16), without grammar, very little can be communicated, and without vocabulary, nothing can be communicated. This is because vocabulary is an essential component of learning a new language and is present in all language skills. According to several researches, learning a second language places a high value on vocabulary knowledge, and a lack of vocabulary knowledge is a significant barrier to overcome.

Based on the writer's experience teaching junior high school students, the writer discovered various issues with learning English at school, one of which was the students' lack of vocabulary. They don't want to learn English, which is one of the reasons they have a limited vocabulary. They believe that studying English is tedious and difficult, and that they are unable to enhance their English skills because they lack vocabulary mastery, and that they only know a few words.

A teacher must be innovative when selecting methods and media to improve students' enthusiasm to learn vocabulary when teaching a language. Students must be able to play an active role in the method and medium chosen, not only in memorizing new vocabulary, but also in practicing using the words they have just acquired, because practicing or using the words they have just

learned will make it easier for them to remember the word. Teachers should employ technology tools to assist them in planning lessons during the teaching process. Teachers must adjust their learning material to the 4.0 industrial revolution, in which digital technology pervades every area of life.

Technology is now frequently employed to improve and facilitate language acquisition, as well as to assist teachers in making classroom activities more interesting and successful. Technology continues to advance and play an increasingly essential role in assisting teachers in providing engaging language learning opportunities for students. The ability of students to learn can be enhanced by the use of technology. Students collaborate to develop assignments and learn from one another by reading the work of their peers.

Larsen-Freeman (2011:72) agrees that technology is a teaching resource that promotes a positive learning experience in the classroom. The presentation of audio, visual, and animation effects provides very major benefits in teaching English, thanks to the rapid growth of technology, the advent of multimedia technology, and its application to teaching. Many learning materials may be supplied to children through the use of proper technology, and they can be inspired to learn a new language.

Mobile learning, according to Neni Mulyani (2014:26), is an example of learning that makes use of information and communication technology. In theory, mobile learning offers advantages such as providing access to educational materials at any time and visualizing intriguing content. Mobile learning is a subset of e-learning, but it is more prevalent in its use of cellular phones' sophistication. Mobile learning provides students with attractive learning

resources that can be accessible at any time and from any location, increasing their desire to study.

Almost all students now have a smartphone, according to statistics. Students can learn English through a range of learning applications that are readily available on smartphones, taking use of quickly emerging technology. In the contemporary 4.0 era, there are numerous learning applications on smartphones, such as Hello Talk, Hello English, Duolingo, Busuu, Cake, and others, that students can use to acquire English vocabulary. The author chose the Cake application to increase students' vocabulary because this application can be very effective and easy to implement. This can motivate students and the class atmosphere is not boring and will be more fun. The Cake application helps students remember words more effectively and easily because in this application users can repeat short conversations that have been provided so that it will be easier to remember each new word. The application of the Cake application helps students to remember more of the information they have learned and can also improve their vocabulary mastery.

Table 1.1 The Results of Preliminary Research

NO	Name	Score of Vocabulary Test
1	JT	52
2	JN	56
3	GN	64
4	GNP	52
5	KY	48
6	AHS	20
7	KAS	56
8	ML	36
9	EN	40
10	HT	48
11	DSM	56
12	AN	44
13	CA	48
14	YK	44

15	TFB	48
16	SP	40
17	CN	52
18	TL	20
19	HLT	40
20	SJ	44

From the result of the test is shown that they still lack in vocabulary. The writer gave 25 questions of filling gap. The writer found student get score just in 20-56 score. Based on the score of the observed above, the writer conclude that the students faced many problems dealing with vocabulary. Those problems are: first, most learners do not like learning English. Second, students are lazy to memorize all the unfamiliar words that they heard or read in the text. Third, students are bored and unmotivated to learn. Forth, usually teacher teaches vocabulary with traditional technique so the learners feel bored during the study. The conventional technology which is applied by the teacher seemed to force them to memorize new vocabularies without the help of media. It made students tend to show low attention on acquiring new vocabularies.

In this study, writer will use an application to teach English vocabulary, namely the Cake application. This software is a smartphone app that may be used to teach English vocabulary and can help students improve their spelling, vocabulary, word knowledge, and memorizing skills. Students can practice speaking and comprehending the meaning of words as well as expanding their vocabulary. The Cake app is an English learning tool that provides a collection of words and their definitions to help users learn English more quickly and effectively. Students can practice using English in a fun way anywhere and at any time by simply downloading the app for free on their smartphone.

Therefore, in this study, the writer wants to discover how Cake affects junior high school students when they are learning words in class. Its goal will be to see if it can assist them enhance their vocabulary. In the classroom, expect a cheerful vibe. It can also be a method or alternative for students to keep their vocabulary up to date. Based on this explanation, the researcher plans to undertake the following experimental study entitled: *“The Effect of Using Cake Application on Students’ Vocabulary Mastery at Second Grade of Junior High School HKBP Sidorame Medan”*.

1.2 The Problem of The Study

Related to the background above, the writer formulates the problems of the study as follows:

Does the use of Cake Application affect students’ vocabulary mastery at second grade of Junior High School HKBP Sidorame Medan?

1.3 The Objective of The Study

The purpose of this study is to see if Cake Application has an influence on students' vocabulary proficiency at second grade of Junior High School HKBP Sidorame Medan.

1.4 The Scope of The Study

This study aims to identify and solve the problem of students' lack of vocabulary in English. There are many kinds of teaching strategy. There are also many schools, grades and media for example online and offline applications such as Duolingo, Hello English, Rosetta Stone, Busuu, Beelinguapp, Cake, and so on. In this study, the use of the Cake application in the vocabulary learning process is

emphasized. The subjects of this study were second grade students of Junior High School HKBP Sidorame Medan.

1.5 Significances of The Study

The findings of the study were explored to give theoretical and practical significance. The findings can:

1.5.1 Theoretical Significance

This research will valuable for next writer who are interested in analyzing whether the use of cake application effect on students' vocabulary mastery at second grade students of Junior High School HKBP Sidorame Medan. This research is expected to be an additional source for the next researcher.

1.5.2 Practical Significance

For future researcher:

This research is expected to provide information and expertise to future researchers who want to do research on how to master vocabulary, better teaching and learning methods, and innovative ways to solve students' vocabulary problems who have similar challenges as this researcher.

1.6 The Hypothesis

"The hypothesis is a temporary answer to a research problem," writes Arikunto (2006:71), "until it is proved by the data obtained." As a result, the hypothesis is the researcher's conclusion regarding the study's likely outcomes. The research's interim findings must be cross-checked against the acquired data. This study uses two types of variables, the first is Cake Application, which serves

as the "X" variable, and the second is the students' vocabulary mastery, which serves as the "Y" variable.

The following research hypothesis is provided in relation with this study idea: "The effect of using Cake Application will improve students' vocabulary mastery."

The following is a description of the hypothesis:

1. Ha: The Cake Application has a significant impact on students' vocabulary acquisition at second grade of Junior High School HKBP Sidorame Medan
2. Ho: The Cake Application has no substantial influence on students' vocabulary acquisition at second grade of Junior High School HKBP Sidorame Medan

CHAPTER II

REVIEW OF LITERATURE

2.1 Theoretical Framework

The research will look into how the Cake Application improves students' vocabulary mastery. This theoretical aims to provide a clear concept that may be applied to this study. In this method, the researcher gives certain notions that are relevant to this study in order to reinforce it.

2.2 The Definition of Vocabulary

One of the most crucial aspects of language to examine is vocabulary. This is a fundamental feature since vocabulary is required when language learners learn to talk, read, and write in the target language. It also helps them understand what they hear in the target language. That is, language learners will be disadvantaged in learning a new language due to a lack of vocabulary mastery. According to Richards (2002:255) "Vocabulary is an important part of language proficiency because it determines how well learners talk, listen, read, and write. Without a large vocabulary and skills for learning new words, they are prevented from taking use of language acquisition opportunities such as listening to the radio, speaking with native speakers, using the language in various contexts, reading, or watching television."

Students must learn the vocabulary of the language in order to develop other parts of the language, such as speaking, reading, listening, and writing. Despite being the easiest part of the second language to learn, according to Nunan (1991:118), vocabulary is rarely acquired in the classroom learning process.

Because vocabulary mastery is required by all language skills, some high school and junior high school teachers are not as focused on teaching vocabulary as they should be. As a result, their students are unable to enhance their capacity to interpret language. For example, students will find it challenging to converse in a foreign language if they do not have or have a limited vocabulary in that language. If they do not comprehend the meaning of the words in the text, they will have difficulties understanding the meaning of the text they are reading. It will be difficult to master a language if you do not begin with learning vocabulary; it is impossible to acquire a new language without first knowing the vocabulary of that language.

Furthermore, according to Barnhart (2008:697), vocabulary is defined as:

1. a collection of words used by individuals, groups of individuals, professions, and other entities.
2. A set of words, usually in alphabetical order and with definitions.

To summarize, vocabulary is a collection of words learned in a foreign language in order to communicate. As a result, vocabulary is crucial, particularly in understanding English, which individuals use to communicate and transmit their ideas or thoughts.

2.2.1 Kinds of Vocabulary

According to Thornbury (2002:3-12), there are six forms of vocabulary:

1. Word Classes

Word classes are sets of words in linguistic units that are grouped in the grammatical system based on their form, function, and meaning. There are eight types of word classes: noun, pronoun, verb, adverb, adjective, preposition, and determiners.

a) Noun

A noun is a term that describes someone or a person, a place, or things. For example: Indonesia, Jakarta, flower, bus, dog, cat, sugar, milk, stone, table.

b) Pronoun

Pronoun is a word that is used instead of noun or noun phrase. For example: I, you, we, they, he, she, it.

c) Verb

A verb is a word or a combination of words that expresses an action, an event or a state, and an occurrence. For example: stand, steal, solve, dance, take, jump, think, speak, stir, etc.

d) Adverb

Adverbs are used to explain or provide additional information about verbs, adjectives, or even the adverb itself.

For example: clearly, kindly, quickly, early, inside, never, often, usually, etc.

e) Adjectives

An adjective is a term that is used to characterize a person or thing. For example: ugly, handsome, smart, kind, pink, calm, quite.

f) Preposition

A preposition is a word or set of words used before a noun or pronoun to indicate place, position, time, or method. For example: on the desk, in the house, at home.

g) Conjunction

The word conjunction is used to connect clauses or sentences, as well as to coordinate words within the same clause.; and, if, but. For example: Dio and Desi are close friends.

h) Determiner

Determiners are word or groups of words that are placed in front of a noun to limit the meaning of the noun. For example: these grapes are sweet, Minh is her stepbrother, his wife is out of the country.

2. Word Families

The word family consists of the root word added with inflection and the most common word derivatives. There are many types of word families:

a) Suffixes

Suffix is a letter or group of letters that is placed at the end of a word. The addition of this word element will form a different meaning in the word that is given the suffix.. For example: -ness for sadness, -ship for internship, -ment for punishment.

b) Prefixes

Prefix is a letter or group of letters that is placed at the beginning of a word or root to modify the meaning of the word.

For example: dis-+ like: dislike, extra- + ordinary: extraordinary, miss- + understanding: misunderstanding.

3. Word Formation

Word formation is the process of merging, cutting, summarizing, and borrowing from existing words to generate new words with a different form from the original. There are numerous ways to form words.

a. Compound. Compounds are words that consist of two or more words that form a new word which generally has a different meaning from the original word. For example: snow + ball: snowball, cross + walk: crosswalk, sun + flower: sunflower

b) Blending

Blending is the act of creating new words by combining two or more existing words to create a single new term. Example: emotion + icon: emoticon, stay + vacation: staycation, situation + comedy: sitcom, etc.

c) Conversion

The term "conversion" refers to a shift in the function of a word. For instance, I always Google everything. (Google is a noun that has been turned into a verb).

d) Clipping

Clipping is a word formation process by cutting or shortening the word without changing the meaning of the word. For example: electronic mail: email, photograph: photo, laboratory: lab, telephone: phone.

4. Multi Words Units

Multi-word units are lexical units made up of two or more words that combine to form a new notion. Multi-word units are divided into two categories.

a) Phrasal Verbs: give up, look after, set off, throw on.

b) Idioms: Idioms are a series of words whose meaning cannot be interpreted literally, but represents a certain expression that is implied in it. For example: "Break a leg" Literally means to break a leg. But the saying "Break a leg" means good luck in something you want to do.

5. Collocation

A collocation is a term formed by the combination of two or more words. For example: commit suicide (Not undertake suicide), lions roar.

6. Word Meaning

a) Synonym is a term or word that has the same meaning as another.

For example: hungry X starving, big X huge, cold X freezing.

b) An antonym is a term or word with two opposite meanings. For example: night X day, pull X push, left X right, short X long, big X small.

c) Homonyms: Words that have the same spelling and pronunciation as other words but have different meanings, such as to, too, and two. Examples of homonyms.: meet and meat, aloud and allowed.

From the previous description, it is clear that there are numerous types of word classes and vocabulary that must be mastered. As a result, the more vocabulary students know, the easier it is for them to understand types of the vocabulary.

2.2.2 The Importance of Learning Vocabulary

People who wish to learn anything new must first understand the basics of what they want to study. The importance of studying vocabulary in this scenario is to assist students in mastering the target language they wish to acquire. Language learning not only prepares students for language material, but also teaches them how to utilize language, both spoken and written. There are many definitions of vocabulary learning objectives that we can find, according to Indonesian National Education Department, vocabulary learning is “In accordance with the nature of language learning, vocabulary learning does not teach words from separated phrases, but is involved in the context of discourse, relates to subjects and is also related to certain fields, for example, is associated with game-themed discourse. Teachers must provide their pupils with terms linked to specific fields in order to get best vocabulary learning results. Special words are used in every discipline of

science. Vocabulary enrichment should be done on a regular basis and can be achieved from several disciplines.”

As stated above, mastering vocabulary is critical to mastering a language so that students can communicate both orally and in writing. To accomplish these students' need, the teacher must make certain that the components of the teaching and learning process are acceptable in terms of vocabulary mastery. As a result, terms like noun, verb, adjective, and adverb that are commonly seen around students are associated with specific fields.

2.2.3. The Problem of Learning Vocabulary

Vocabulary is important for a variety of reasons, and mastering it can be a significant part of a well-planned language education. Syah (2005:132) categorizes two variables that cause students to struggle with vocabulary learning. Individual and social variables both play a role. Individual variables, according to him, are characteristics that students bring to the table, such as motivation, growth, attitude, and talent. While social elements include influences from the student's immediate environment, such as family, teachers, the environment, teachers, and facilities.

When students learn the target language, such as English, they will confront numerous difficulties in understanding vocabulary. First, they lack language, making it difficult for them to comprehend what they read and hear. They are occasionally perplexed while employing these words, which could be due to a lack of understanding of the functions of the phrases they are familiar with. Students may find it challenging to learn and master all aspects of English due to a lack of vocabulary.

Second, students learn mostly from what their teachers teach them. If the teacher asks a question, the students will respond and carry out the request. They don't if they don't have to. This may be due to their lack of drive or ambition to study English effectively; they require significant motivation. Motivation is defined by Parsons et al. (2001:28) as an important component or factor in the learning process. Learning and motivation must work in tandem to achieve goals; learning and motivation are equally important. While motivation is defined as a condition that can initiate, guide, and maintain our behavior until a goal is reached, learning causes us to acquire new knowledge and skills, and motivation encourages or drives us to go through the learning process.

The last point is about the media that the teacher uses to teach, particularly terminology. For students, the media employed by the teacher is frequently less appealing or even uninteresting. Some professors provide kids with simple media, which they find boring. They will not concentrate on the learning process if they are bored. Teachers must be able to pique students' interest by employing engaging material.

2.3 Cake Application

2.3.1. The Definition of Cake

Cake is one of the free language learning apps and sites. This language learning app is a free English learning app that can be accessed for Android or iOS. "The cake application is an app that may be used to learn English," they explain on their website. Cake Learn English for Free was created by Playlist Corporation in the Education category, and it offers a variety of appealing features such as video conversations with subtitles, speaking practice with native speakers,

the AI Speech Recognition feature (which is used to check pronunciation), and claims that all of these features are available for free.

According to Fitria et al. (2021:120) “Cake English learning Application” is helpful in English language learning with fun way. This application allows learners to learn English from videos, short English dialogues and conversations which are daily updated thus learners can learn rapidly and continuously. Users can also play a slower version of the video than the original. This will make it easier for users to grasp and retain terms, allowing them to enjoy, be interested in, and enjoy the learning process.

This application only need quota Internet for access. To get this app, we can install it from Google Play Store for Android users and App Store for iOS or iPhone users. Before registering for this app, learners are required to take a vocabulary test. Thus, beginners will learn lesson level 0. If succeed pass that level, the level will increase even more. These levels are designed and adapted to their English skills so that each level has a different level of difficulty. In the learning process, there are various forms of lessons that can be taken by learners, such as listening and then try to follow the sound to read the words, playing vocabulary matching games or fill in the blanks, and many more. Since this written is focus on an app that can improve students’ vocabulary mastery, this Cake-Learn English Application becomes an option that will be discussed. Vocabulary is the basic thing that must be mastered when we want to learn English. The key to being able to read and understand written text in English and speak in English is vocabulary.

Mccarten (2007:14) stated that both teaching and learning vocabulary can be done by managing a conversation. From this statement, it can be said that vocabulary can be sharpened and improved through a conversation. But before that, to have a conversation, we must first know what we are going to say, of course in English. Therefore, students need to learn the conversation. In this case, while listening to an example conversation, students try to find the difficult words that they don't understand yet and get the meaning and try to memorize them. After that students can try to practice that conversation. This is what we can find in this Cake-Learn English Application. It provides many examples of conversations as well as exercises related to vocabulary mastery.

2.3.2 The Purpose of Using Cake

Mastery of vocabulary is critical for novices learning a new or non-native language, particularly for foreign language learners. If students lack vocabulary, they will struggle to understand what they read or hear since interpreting phrases read or heard by novices is challenging. As a result, teachers must be familiar with engaging strategies for presenting language to students.

According to experts Gairns and Stuart Redman (1991, p.73-74), there are two types of vocabulary presentation techniques: visual and spoken or verbal techniques.

- a. Visual techniques consisting of photos, wall charts, flashcards. they are widely used for teaching focused on vocabulary items.
- b. The use of demonstrative circumstances (oral or written), synonyms and definitions, contrasts and opposites, scales, and instances of kinds are all examples of verbal techniques.

The purpose or goal of this Cake Application is for students or users to learn and master a language, in this case English, so that they may practice and utilize it in their daily lives. The user will be able to tell if the app is focused on vocabulary mastering based on what is offered in the session. As a result, Cake can be a tool for students to enhance their vocabulary, and teachers can utilize it in the classroom to assist students in learning new words. One concept for using this cake application is to use it to assist students learn new language through games so that they are motivated to study.

2.3.3 The Benefits of Use Cake-Learn English Application

The following are some of the benefits of Cake-Learn English Application, according to Fitria Anisa, et al., (2021:118-123): This software uses a cutting-edge learning mechanism. It introduces a more relevant learning style nowadays. Learners are given with short films in many categories and also learn English through the notion of games in this English learning application. There are numerous vlogs, films, and podcasts available, all with subtitles and translations in Indonesian. Learners can play slower versions of these videos in addition to the original versions.

The next benefit is that this application is more versatile and contextual. Learners will be given more diversified exercises and will be able to relate to a context in this application. For example, to answer a question in English that demands an answer in the form of a specific word or sentence, this program will display accompanying sentences in dialogue with a specific environment so that learners may grasp and memorize an expression contextually.

The following is the example question and dialogue in the Cake-Learn English Application:

Question: Aku tahu kita akan berhasil.

Answer: I knew we _____it off!

Dialogue:

Reporter: It's been that kind of season for the Dodgers. Nothing easy. And the crowd? They were nervous.)

(Reporter: Musim seperti itu bagi Dodgers. Tidak ada yang mudah. Dan kerumunan? Mereka gugup.)

Man A: We're not worried about the regular season anymore. Now it's time to get over the hump.

(Pria A: Kami tidak khawatir tentang musim reguler lagi. Sekarang saatnya untuk mengatasi rintangan yang sebenarnya.)

Woman A: I knew we'd do it. I knew **we'd pull it off**.

(Wanita A: Aku tahu kita akan melakukannya. Aku tahu kita akan berhasil.)

In the dialogue, the answer to the question is listed. The bold sentence "I knew we'd pull it off." indicates the answer that is to say "Aku tahu kita akan berhasil." In English. The phrase "we'd pull it off" is very easy to understand when there is an accompanying conversation context so that learners can understand when the sentence can be used in a dialogue or conversation. According to Xiaoyu (2018:104-108) this varied and contextual exercises and learning, learners will have more fun and not get bored easily in learning English, especially in learning vocabulary.

Another advantage is that students can sign up for free subscriptions to the topics they enjoy. More custom themes are available in this program, which learners can select and subscribe to. Those who prefer to study English through movies only need to search in the subscription column, select the movie channel, and view the selected movie clips. Learners can subscribe for free on the movie

channel to be able to watch other movie clips as media for learning English every time they open the Cake-Learn English Application. Certainly, this feature is considered fun for learners.

As mentioned and explained above that now the learning process also requires changes like the times. Technology that continues to develop demands the learning process to develop as well. Cake-Learn English Application can be an option. Also, seen from the aspects of the advantages and the experience of using this application, it has positive advantages and very useful for learners. Thus, it can be said that this application is worth it to use for learning English, especially for learning vocabulary.

2.3.4 The Procedure of Learning Vocabulary by Cake

To access Cake Application you have to sign in first. You can sign in using your Facebook account or using Google account, you can also use guest mode which is you do not need to sign in but, when you use guest mode, only free episodes (material for speaking practice) are available. To start speaking course in this application touch the microphone symbol on the bottom and decide what level you want to learn then choose the episode or topic that you need to learn, each episode costs 10 coins. When you sign in you will get 30 coins to open the episodes of speaking course, Notice:

1. Coins are used to buy individual episodes in speak. Coins are not for sale. They were given when you use speak while logged in.
2. The number of coins you are given will depend on how many coins you spend, the more you spent, the more you get.
3. You can save up to 50 coins, and cannot receive more coins beyond that

Drill and Practice is the message and information delivery format that Cake has adopted. Drill & Practice, according to Arsyad (2011, p.95), provides examples for students to enhance their talents by forcing them to practice directly and repeatedly. The crucial aspect of this principle is that students will repeat the lesson until they comprehend it; if they do not understand the content, they will not continue with the lesson or practice.

2.4 Previous Study

In connection with this study, the writer has chosen some earlier research that has been undertaken by other researchers that is relevant to language learning, particularly vocabulary mastering, and utilized those previous research as references:

The first research conducted by Darsalina (2010) *The Application Of Cake Application in Teaching Vocabulary at Second Grade of SMPN 8 Banda Aceh*. The purpose of this quantitative study was to determine the students' vocabulary mastery before and after cake application. Students' language mastery improved significantly, according to the findings. It was found on the students' pre- test score with level significance degree (α) = 0.05 resulted in $t_{score} 13.23 > t_{table} (20,0.05) = 2.086$. The result of the study revealed and implied that the application of cake application can reinforce vocabulary learning significantly. Therefore, the writer uses the research finding as reference in conducting a proposal entitled "The Effect of Using Cake Application on Students' Vocabulary Mastery at Second Grade of Junior High School HKBP Sidorame Medan."

The second researcher conducted Khoiriyah (2010) *The Use of Cake Application to Improve Students' Vocabulary of MTs NU Ungaran*, The finding

showed the vocabulary score of experimental class (the students who are taught using cake application) is 79.57. The vocabulary score of control class (the students who are taught without cake application) is 74.57. The findings revealed the effectiveness of cake application in enhancing students' vocabulary and useful for them to guess the meanings easier and remember words longer. The findings of the research prove that the cake application is effective in helping students learn more new vocabulary quicker and easier and remember vocabulary for a longer time especially at beginner level and lack of vocabulary. The writer uses the research finding as reference in conducting a proposal entitled "The Effect of Using Cake Application on Students' Vocabulary Mastery at Second Grade of Junior High School HKBP Sidorame Medan."

The third researcher by Nurina Almas Laila Fatin (2020) from the State Islamic Institute (IAIN) Tulungagung entitled "Effectiveness of Using Cake Applications on Vocabulary Mastery for Class VII MTsS PSM Rejotangan Students". The goal of this study was to see how much of an impact the Cake application had on the seventh grade of MTsS PSM Rejotangan Tulungagung. The results showed that the Cake application had an effect on increasing vocabulary mastery. The average value of the pre-test was 46.59 while after being given treatment the average value of the post-test was 59.14. In conclusion, the Cake application's treatment is successful in improving students' vocabulary mastery. Therefore, the writer use the research finding as reference in conducting a proposal entitled "The Effect of Using Cake Application on Students' Vocabulary Mastery at Second Grade of Junior High School HKBP Sidorame Medan."

2.5 Conceptual Framework

The four skills of speaking English, namely listening, reading, speaking, and writing, are all heavily influenced by vocabulary. As a result, mastering vocabulary is critical to improving students' capacity to master a language. It is possible to help students communicate and convey their ideas in their activities by teaching English vocabulary effectively. Using the Cake application to study English as a foreign language is one of the most effective ways to increase students' abilities to express themselves.

Nowadays the use of Cake application to improve vocabulary mastery has become one of the most popular ways of teaching English. It can be seen from the number of people who download this application. The use of Cake is more effective because students will be more active in class. The use of Cake is considered an effective and fun process for teaching vocabulary because it allows students to practice, express their ideas, and discuss the meaning of their newly discovered vocabulary. Learning to utilize the Cake program assists and motivates students to develop their vocabulary knowledge as well as all four English abilities at the same time.

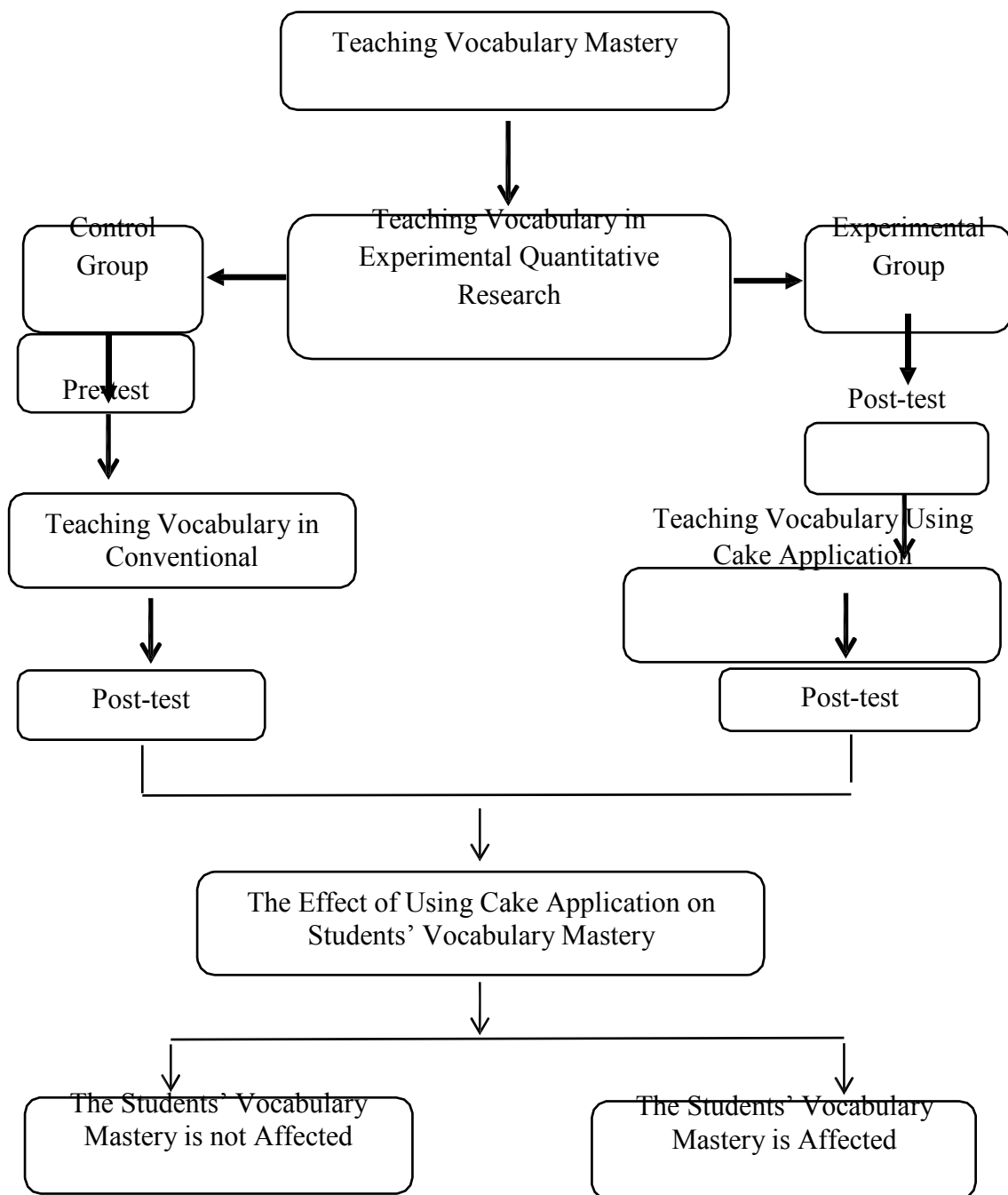


Figure 2.5 Conceptual Framework

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

What is meant by research design is how data was collected and analyzed by researchers. The research design used in the study was experimental quantitative research. Experimental research was used by researchers to evaluate the effect of independent variables on other variables or the causal relationship between variables. Experimental research, according to Ary et al. (2010:19), is a study of the effect of systematic modification of one variable on other variables. Furthermore, experimental research can be defined as a process of testing hypotheses that begins with queries regarding the relationship between two or more variables.

In experimental quantitative research, the study involved the students into control group and experimental group to collect the data. The control group learned vocabulary by using conventional method. Meanwhile the experimental group learned vocabulary by using Cake application. The experimental was carried out by giving a treatment to a single group, precede by pre-test and followed up by a post-test after the treatment. The pre-test assesses some property or characteristic that assessed in an experiment before the group receives treatment, whereas the post-test assesses some attribute or characteristic that assessed for participants in an experimental after they have received treatment. With a pre-experimental study design, the researcher studies one group and does not have a control group to compare to the experimental group, as Creswell

explains (2014:122). The post-test score is higher than the pre-test score, it indicates that the students' vocabulary has improved and that the treatment is as successful as the media in teaching vocabulary.

Table 3.1 The Table of Research Design

Group	Pre-test	Treatment	Post-test
Experimental	V	X	V
Control	V	Y	V

Explanation:

X :The students will be taught by applying Cake Application

Y: The students will not be taught by applying Cake Application

3.2 Population and Sample

The population refers to the total group of individuals, events, or objects that the researcher is interested in studying, while the sample is part of the population. The sum of all the items studied can be defined as the population. The sample is a small part of the population itself which is taken as an object in an observation or research because it is considered capable of representing the population.

3.2.1. Population

According to Bryman (2001:20), the population is the entire unit or group, while the sample is the portion chosen by the researcher to represent the entire unit or group. Bryman further claims that the population and sample are not always human, but can be a country, a school, or a set of theories, among other things. The populations of the study were the second grade students of SMP HKBP Sidorame in the academic year of 2021/2022 that consists of VIII-A, VIII-B and VIII-C. The totals of population were 105 students.

3.2.2. Sample

The sample is a portion of the population which limited number of cases. The sample of the study was divided into an experimental class and a control class. The totals of population were 105 students, the writer takes 40 students as a sample, each class consists of 20 students. Taking of sample in this research is random technique. The writer chooses random technique because all the three classes have the same chance in this research. So, the three classes are drawn to take two classes as sample.

3.3 Research instrument

A vocabulary test was used as the research instrument in this study. This test was used to see how much the cake application has improved students' vocabulary mastery. Pre-test and post-test vocabulary exams were administered. The vocabulary test comes in the form of a matching test and gap filling, 25 questions for both the pre-test and post-test. The pre-test assessed the students' initial attainment of English words prior to utilizing the cake application, and the post-test determined the increase in students' vocabulary after treatment with the cake application in the experimental group.

3.4. Technique of Collecting Data

According to Sugiyono (2015), technique of data collections in quantitative methods are research methods based on positivism philosophy that are used to examine in a specific population or sample, data collecting using research equipment, quantitative data analysis / statistics, and hypothesis testing. In this study, the data were collected by administering a vocabulary test to both

the experimental and control groups. The test were administered in two sections: pre-test and post-test. The goal of the test is to determine the effectiveness of Cake application once it has been implemented with students.

3.4.1 Pre-test

The experimental group and control group were given a pre-test to determine the results and mean scores of the two groups. It is administered before to the treatment.

3.4.2 Treatment

The experimental group and the control group were given the same material but in different ways. The experimental group was given the cake application as a treatment, while the control group was given the conventional method.

3.4.3 Post-test

The post-test was given after the students treated by cake application for the experimental group and for control group without cake application. After explaining the material, both groups was given the identical test to determine the treatment's effectiveness. At the very least, the researcher determined the impact of cake application on the students' vocabulary mastery.

3.5. Technique of Data Analyses

This study employed a quantitative technique. To obtain quantitative data, the writer administers a vocabulary exam to students before and after deploying the Cake Application. The researcher utilizes the following test formula to determine the significant effect on students' vocabulary knowledge when

assessing the data. The formula for the t-test is as follows, according to Arikunto (2013:24):

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{s^2}{n} + \frac{s^2}{m}}}$$

Where:

Mx : The mean of the experimental group

My : The mean of control group

x : Deviation of the experimental group

y : Deviation of the control group

Nx : Number of students in experimental group

Ny : Number of students in control group

3.6 The Scoring of Vocabulary Test

To know the score of students and see the influence of student's vocabulary mastery and Cake application, the writer used score ranging 0-100 by applied this formula to count the correct answer as follows:

$$S = \frac{R}{N} \times 100$$

S = Score of the test

R = Total of correct answer

N = Total of test item

3.7 Validity and Reliability

3.7.1 The Validity of the Test

Validity is generally defined as the extent to which an instrument measures what it is supposed to measure. According to Arikunto 2010:211, validity is a measurement that shows the level of instruments for the appropriate

information needed by the researcher. There are four types of validity include content validity, construct validity, concurrent validity, and face validity. But in this study, the writer conducted construct validity that concerns conceptual definition rather than methodological factors which can be demonstrated that it measured the ability which is supposed to measure by using the formula of Arikunto (2010:213) below:

$$r_{xy} = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

r_{xy} = the correlation between two variables

N = total of sample

$\sum X$ = the mark in pre-test

$\sum Y$ = the mark in post-test

$\sum X^2$ = the square of pre-test (X)

$\sum Y^2$ = the square in post-test (Y)

$\sum XY$ = the sum of multiplication X and Y

According to Arikunto (2010:319), the classification of the validity could be seen as follows:

Rxy	Validity Spesification
0,80 - 1,00	Very High
0,80 - 0,60	High
0,40 - 0,60	Fair
0,20 - 0,40	Low
0,00 - 0,20	Very Low

3.7.2 The Reliability of Test

The term "reliability" refers to the consistency of measurement, which means that the results will not change significantly if the test is done on several occasions and by different people. According to Arikunto (2009: 86), a test is

regarded to have high dependability if it can get identical results. According to Arikunto, a test can be measured multiple times and the findings are consistent. If a test consistently produces the same results under the same conditions, it is said to be reliable.

To found out the reliability of the test, the writer has used Kurder Richardson Formula KR-21 as follow:

$$r_{11} = \frac{M}{S} \times (1 - \frac{M^2}{S})$$

Where:

r_{11} = Reliability of test

K = Number of items in the test

M = Mean of Score

S= Total of Variance

The correction coefficient is one of the statistical tools used to find out differences and compare the measurement results of two different variables so that it can determine the level of relationship between these variables (Arikunto 2010:313). The categories of correlation coefficients are as follows:

0,00 - 0,20 = the reliability is very low

00,21 – 0,40 = the reliability is low

0,41 – 00, 60 = the reliability is fair

0,61 – 00,80 = the reliability is high

0,81 – 1.00 (above) = the reliability is very high

3.8 Hypothesis Testing

Hypothesis testing conducted to figure out whether the Cake Application has a significant effect or not on vocabulary mastery at second grade of Junior High School Sidorame Medan. Hypothesis testing will be conducted by use pair sample T-test to examine the hypothesis will be rejected or accepted. If t-table is lower than t-count, H_a will be rejected. Meanwhile if t-table is higher than t-count, H_a will be accepted.