THE EFFECTIVENESS OF FOUR VOCABULARY GAMES IN IMPROVING STUDENTS' ENGLISH VOCABULARY RETENTION AT SMPQTA AN-NUR GEDONG TATAAN

Undergraduate Thesis

By<br>BINTANG CAESARIO RAMADHAN



ENGLISH EDUCATION STUDY PROGRAM

# ABSTRACT <br> THE EFFECTIVENESS OF FOUR VOCABULARY GAMES IN IMPROVING STUDENTS' ENGLISH VOCABULARY RETENTION AT SMPQTA AN-NUR GEDONG TATAAN 

By

Bintang Caesario Ramadhan

Vocabulary is the most crucial part of language learning. It provides the basis for the four language skills which are reading, writing, listening, and speaking. However, many EFL students, especially in Indonesia, struggle a lot when it comes to learning English, due to their limited vocabulary knowledge. It hinders them to learn English effectively. The seventh-grade students at SMPQTA An-Nur Gedong Tataan were one of the examples of the students who had a struggle learning English. This research aimed at finding out whether there is a significant improvement on students' English vocabulary retention at SMPQTA An-Nur after the implementation of four vocabulary games. Being pre-experimental research, this research employed one-group pretest-posttest design, utilizing vocabulary translation test to obtain the data. There was only one seventh-grade class at SMPQTA An-Nur Gedong Tataan, therefore saturated sampling was used for this research. The mean scores on both the pre-test and post-test were analyzed using the Paired-Sample T-Test with a significance level of 5\% (0.05). The result shows that there is a significant difference in students' vocabulary retention after the implementation of four vocabulary games by comparing students' pre-test and posttest scores. With the help of SPSS 25 program for maximum accuracy, a significance (2-tailed) value of 0.000 was obtained. The significance ( 2 -tailed) value was higher than the significance level $(0.000<0.05)$, and $t$-value is higher than $t$-table (15.920>2.064). Therefore, the four vocabulary games are effective in improving students' vocabulary retention.

Keywords: English vocabulary, vocabulary retention, vocabulary games

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# By <br> BINTANG CAESARIO RAMADHAN 

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In

The Language and Arts Education Department Faculty of Teacher Training and Education


ENGLISH EDUCATION STUDY PROGRAM

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Menyatakan bahwa skripsi ini adalah karya dari pelaksanaan penelitian saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya gunakan sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, maka hal tersebut sepenuhnya merupakan tanggung jawab saya.

Bandar Lampung, 9 Oktober 2023
Yang membuat pernyataan,


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## CURRICULUM VITAE

Bintang Caesario Ramadhan was born on November $27^{\text {th }}$, 2001 in Bandar Lampung. He is the first son out of the 2 brothers of a beautiful couple: the late Rialdi Jufri and the late Indarsih.

He graduated from SMAN 1 Gedong Tataan in 2018. He was in an acceleration program and thus only studied there for 2 years instead of the normal high school length of 3 years. During his high school years, he joined and became an active member of the English Club (EC) at the school. After graduating from high school, he continued his education in English Education Study Program at University of Lampung. He participated in several humanitarian projects and became a volunteer in the fields of education and the environment. He enjoyed his experience during the Community Service Program (KKN) at his hometown Kebagusan, Gedong Tataan and during the Teaching Practice Program (PLP) at SMAN 2 Gedong Tataan, Pesawaran in 2021. He also participated in a Kampus Merdeka Program where he taught English to high school level students at Qoroba Mulya orphanage for 1 month.

## MOTTO

If you are tolerant of everything, you stand for nothing.

- Emory Andrew Tate III


## DEDICATION

In the name of Allah Subhanallahu Wa Ta'ala The Most Beneficent

The Merciful

The researcher proudly dedicate this humble work of his to his beloved late parents,

Rialdi Jufri \& Indarsih

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## I. INTRODUCTION

### 1.1. Background of the Research

Vocabulary is the core elements of a language; it provides much of the basis of how language learners read, write, listen, and speak (Richards \& Renandya, 2002). An adequate amount of vocabulary is required in order to communicate through the learned language. Vocabulary is, in fact, as important, if not more important than the grammar of the language itself, because even if the learners are proficient in the grammar aspects of a language, they will not be able to express themselves effectively without a sufficient amount of vocabulary knowledge of the language (Min, 2013). Similarly, Alqahtani (2015) stated that being able to produce grammatical sentences is pointless if the vocabulary needed to convey what is trying to be said is not known. It is largely due to the fact that most of the meaning of a text is carried by lexicon as opposed to the grammar (Schmitt et al., 2011).

When it comes to English vocabulary learning, Harmer (2001) states that memorizing list of words are the most traditional method of teaching vocabulary. This so-called traditional method is the commonly applied method by teachers when they are teaching vocabulary in the classroom (Nation, 2001). There are some variations of this method, but generally the method involves the teacher writing a list of certain vocabulary topic along with its translation on the whiteboard, reading each word in the vocabulary list one by one out loud to the students, and then asking the students to repeat the words that have been read out loud by the teacher. The process is repeated until all the students are able to pronounce all of the given words correctly. Students are also asked to write down the words on the whiteboard to their book and expected to memorize the words and their meaning.

In a study by Huyen \& Nga (2003) in Vietnamese schools, it is found that traditional vocabulary learning such as rehearsing, writing words on paper, and or learning passively through teacher's explanations are the most common teaching methods to which the students are exposed when learning vocabulary. The result of this widespread use of traditional method according to the research is that students only associate vocabulary learning with memorizing a list of words given by the teacher and nothing else. It causes them to think that learning vocabulary is and has always been a boring process. Students are then discouraged to learn vocabulary, and they will blame their memorizing ability when they fail to retain the new words.

It is clear that despite its prevalent use in vocabulary teaching, traditional method posts several problems that question its effectiveness in teaching vocabulary. Due to it only relying on the teacher's explanation, the students have little participation in the learning process, which does not help them in vocabulary retention (Stavy et al, 2019). Students are also not expected to sit down and do the same activity for a long time because they lose interest after several minutes due to their short attention span (Harmer, 2001). They need a variety of learning activities to keep them motivated in learning vocabulary and to retain the learned words.

To resolve this problem, teachers need to change the students' mindset regarding vocabulary learning. Students need to know that there are a lot of fun and engaging ways to learn vocabulary. Teachers should introduce new methods of teaching vocabulary, especially ones that encourage students' participation. It is because of the fact that students' participation is required in the learning process to maximize their vocabulary retention (Stavy et al, 2019).

One of the ways to encourage students' participation is the involvement of vocabulary games in vocabulary teaching. With the use of vocabulary games, students will then have an opportunity to participate actively through fun but also educational activities. Since games are focused more on actions rather than
explanations, they will attract attention and maintain motivation during the process (Schifter, 2013). For that reason, the researcher was motivated to conduct research titled, "The Effectiveness of Four Vocabulary Games in Improving Students' English Vocabulary Retention at SMPQTA An-Nur". The reason why the researcher picked the seventh-grade students at SMPQTA AnNur Gedong Tataan was that the researcher taught English at said school. The four vocabulary games that were used in this research were Charades, Pictionary, Word Scramble, and Apple, Orange, Banana.

### 1.2. Research Question

Is there a significant difference on students' English vocabulary retention at SMPQTA An-Nur after the implementation of four vocabulary games?

### 1.3. Objective of the Research

To investigate whether there is a significant difference on students' English vocabulary retention of the seventh-grade students at SMPQTA An-Nur after they are taught using four vocabulary games.

### 1.4. Use of the Research

This research will be conducted as a means to give the following benefits:
a. Theoretically

The result of this research may support the previous theories and provide useful information for future research regarding the implementation of vocabulary games to improve students' vocabulary retention.
b. Practically

This research can be used as a reference for teachers and/or students to consider involving vocabulary games when teaching and/or learning vocabulary to improve vocabulary retention.

### 1.5. Scope of the Research

This research used a quantitative approach. It focused on investigating whether the use of four vocabulary games is effective at helping students retain learned vocabulary. The subject of this research was the seventh-grade students at SMPQTA An-Nur Gedong Tataan.

### 1.6. Definition of Terms

Some important terms used in this research are defined to avoid ambiguity and clarify said terms.

### 1.6.1. Vocabulary

Vocabulary is the collection of words that an individual knows in a certain language (Linse, 2005). In this research, vocabulary refers to the list of words that will be tested by the researcher. The vocabulary that will be tested belongs to the high frequency word category according to General Service List of English Words (GSL) by West (1953). The topic of the vocabulary is "Jobs and Occupations".

### 1.6.2. Vocabulary Games

A vocabulary game refers to one of the language teaching game categories in which students' attention is focused primarily on words (Lee, 1979).

### 1.6.3. Vocabulary Retention

Vocabulary retention refers to the ability to recall and remember words after an interval of time (Richards \& Schmidt, 2002). The recalled words are then
used in a different language context (Mohammed, 2009, as cited in Syuhada, 2019).

## II. LITERATURE REVIEW

### 2.1. Previous Researches Overview

In an attempt to solve boring and ineffective vocabulary learning problem, which causes poor vocabulary retention, researchers conducted studies that involved word, language, or vocabulary games to encourage students' participation. These recent studies conclude that using word, language, or vocabulary indeed improve students' ability to retain the new words that they have learned.

Among recent studies reviewed were by Taheri (2014). Stavy et al. (2019), and Shabaneh et al. (2019). In Taheri's (2014) study of 32 female students of private language institutes in Iran, the participants were divided into two groups: control group and experimental group. The language games were involved in the teaching of experimental group, while the control group was taught using the traditional method (i.e., the drilling method). The result of the research is that the group that was taught with the involvement of language games scored better in the delayed posttest than the group that was taught using the traditional method. It was also concluded in the research that language games significantly help students in vocabulary retention and recall.

In a more recent study, Stavy et al (2019) conducted a quasi-experimental study of 64 third grade elementary students, which consist of 32 males and 32 females, at rural district school in Sarawak, Malaysia. The study investigated the impact of using language games on students' vocabulary retention. The language games used in this study were "describe it", "matching pairs", "jigsaw puzzle", "board rush", "ball games" and "true or false". There were two stages of this study. In the first stage, the students were taught 8 new words taken from a $3^{\text {rd }}$ grade English textbook that were unfamiliar to them using the traditional method for two weeks, from Monday to Friday. In the second stage, the same students from the previous stage were again chosen, this time as an experiment
group. Like the previous stage, they were also taught 8 new words from the text book but on a different unit. However, the 6 previously mentioned language games were utilized in this second stage. This stage also lasted for two weeks. Two weeks after the second stage treatment, students were given the posttest. The result of this research is that there is a significant increase in students' vocabulary retention ability when they were taught using the language games as opposed to the traditional method.

Another recent study by Shabanah et al (2019) also attempted to investigate the effectiveness of games on vocabulary retention. The study was conducted at Dar-Assalam School in Hebron, Palestine. The participants of the study were 20 randomly chosen students (ten males and ten females). The study treatment was conducted once a week for two months. This study used two methods to analyze the data: class observation, which the researchers used to see students individual performance when they were taught using games, and pretest and posttest to see their achievement in vocabulary retention before and after they were taught using games. The result of this research is that using games improves students' achievement on vocabulary retention in the posttest. Moreover, the result of the class observation shows that students are really engaged in the learning process due to the involvement of games.

### 2.2. Vocabulary

Harmer (2001) provided a great analogy regarding the importance of vocabulary in a language. He stated that if language were a body, and grammar arranges the skeleton of the language, then vocabulary provides the flesh and vital organs. The skeleton will not function at all without the existence of flesh and vital organs inside it. This very well summarizes what vocabulary is and its importance in a language.

As for the definition, experts have provided various definition for vocabulary. Hatch and Brown (1995) states that the term vocabulary is a set of words of a
certain language that an individual speaker has that is used to communicate. Similarly, Linse (2005) defined vocabulary as the collection of words that an individual knows in a certain language.

Based on the definitions provided by experts above, a conclusion can be made, which is that vocabulary is words that are available in a particular language and each individual has their own vocabulary knowledge that is different from other individuals: some know more than the others, and some know less.

### 2.3. Types of Vocabulary

Based on its frequency, Nation (2001) classifies vocabulary into four categories:

### 2.3.1. High Frequency Words

High frequency words are words that English learners encounter the most in written material. Words like "the", "you", and "is" are some of the examples of high frequency words among many others. High frequency words consist of 2000 words and 1500 related words according to General Service List of English Words (GSL) by West (1953), making about 3500 words in total. It is crucial to learn high frequency words as a text usually consists of about $80 \%$ of these words (Nation, 2001).

### 2.3.2. Academic Words

Academic words are words that commonly appear in academic texts. Some examples of these words are "achieve", "accommodate", and "access". Academic words according to Academic Word List (AWL) by Coxhead, 2000) consist of 570 head words and approximately 3000 words in total. Although these words consist of a relatively small list of words compared to the other categories and usually make up about only $9 \%$ of a text, it is
important to learn these words for learners who use English for academic purposes (Nation, 2001).

### 2.3.3. Technical Words

Technical words are usually found in a particular subject or topic part of a text. The subject or topic includes, but not limited to, business, science, and law. The frequency of technical words differs from one subject part to another, however usually these words make up about $5 \%$ of a text (Nation, 2001).

### 2.3.4. Low Frequency Words

Low frequency words consist of the largest word list out of the other categories. These words are also not identified as high frequency words, academic words, or technical words. Although having the biggest list of words, low frequency words are the least encountered words in a text or in day-to-day use, with only $5 \%$ of these words can be found in academic texts (Nation, 2001).

In terms of learners' knowledge of the words, vocabulary can be divided into active and passive vocabulary.

### 2.3.5. Passive Vocabulary

Passive vocabulary is vocabulary that learners encounter during a reading or listening process (Stuart, 2008). Learners recognize and understand the meaning of these words in such situation, but they do not produce the words when speaking or writing. Active vocabulary is heavily related to the receptive side of the vocabulary knowledge.

### 2.3.6. Active Vocabulary

Active vocabulary is vocabulary that learners have good knowledge of and therefore they can use them well when writing or speaking. The words are able to be recalled and used at will by learners when a situation of speech and writing requires them (Dakhi \& Fitria, 2019). Active vocabulary is heavily related to the productive side of the vocabulary knowledge.

In the case of this research, the topics of the new vocabulary that were taught in this research were based on the seventh-grade syllabus of the 2013 Curriculum. From said syllabus, the researcher picked "Jobs and Occupations" as the topic for the tested vocabulary of this research. The new vocabulary was high frequency words.

Nation (2001) states that teachers and learners should focus on high frequency words, as the time spent for learning them are justified due to their high frequency, coverage, and range, thus the decision to choose high frequency words for this research.

The high frequency words of this research were taken from the first 3000 most frequent English words by Nation and General Service List of English Words (GSL) by West (1953).

### 2.4. Aspects of Vocabulary Knowledge

The concept of a word can be defined in various ways, but three significant aspects that learners need to be aware of and focus on according to Nation (2001) are as follows:

### 2.4.1. Form

According to Nation (2001), the form of a word involves its pronunciation (spoken form), spelling (written form), and any word parts that make up this particular item (such as a prefix, root, and suffix). Understanding the spelling (written form) of a word involves knowing how the word look like and how it is written and spelled.

### 2.4.2. Meaning

Nation (2001) stated that meaning encompasses the way that form and meaning work together, in other words, the concept and what items it refers to, and the associations that come to mind when people think about a specific word or expression.

### 2.4.3. Use

Use, Nation (2001) noted, involves the grammatical functions of the word or phrase, collocations that normally go with it, and finally any constraints on its use, in terms of frequency, level, and so forth.

In terms of the scope of its use within the four skills of language (listening, speaking, reading, and writing), most researchers in this field agree on the distinction between receptive vocabulary knowledge and productive vocabulary knowledge (Laufer, 1998; Laufer \& Paribakht, 1998; Henriksen, 1999; Nation, 2001; Read, 2000; Schmitt, 2014, as cited in Maskor \& Baharudin, 2016).

### 2.4.4. Receptive Vocabulary Knowledge

Receptive vocabulary knowledge refers to the ability of learners to recognize words and their meaning when reading a text or listening to others. Learners are able to recognize and understand these words when they
appear in a text or uttered by someone, but they have yet the ability to use these words when speaking or writing (Maskor \& Baharudin, 2016).

### 2.4.5. Productive Vocabulary Knowledge

Unlike its receptive counterpart, productive vocabulary knowledge is the ability of learners to understand the meaning of words and produce those words when speaking or writing (Maskor \& Baharudin, 2016). Having productive vocabulary knowledge means that learners are able to form words in order to express their thoughts and feelings that are understood by others, thus productive vocabulary knowledge is regarded as the process of utilizing active words (Webb, 2013).

The focus of this research will be on the meaning aspect of knowing a word.

### 2.5. Vocabulary Retention

Vocabulary retention is an essential factor in learning English as a foreign language. When learners learn a new word, they are expected to remember that word for as long as possible, if not permanently. Vocabulary retention is the ability to keep the acquired vocabulary and retrieve it after a period of time to use it in different language contexts (Mohammed, 2009, as cited in Syuhada, 2019).

Vocabulary retention has also been defined as the ability to recall or remember things after an interval of time. In language teaching, retention of what has been taught may depend on the quality of teaching, the interest of the learners, or the meaningfulness of the materials (Richards \& Schmidt, 2002).

Al-Zahrani (2011) states that the learners' ability to remember and recall words, phrases, and utterances to be used in a learning process and in the future (written
or spoken form) is closely associated with how they acquire and retain the vocabulary.

It is thus can be concluded, that vocabulary retention is learners' ability to recall the words that they have learned after an interval of time.

### 2.6. Games

A game is generally known as an activity that people do for entertainment purposes. There are some criteria that make a game to be considered a game. Maroney (2000) states that there are three crucial components to really understand what a game is. The components are structure, goals, and play.

Structure means that a game has some defined actions and rules that the players have to do to play the game. Goals mean that a game has a certain objective for the players to achieve to be victorious. As with play, there are three types of play: play as in "perform", which means that the players are actively participating in the game; play as in "pretend", which means that what happens in the game is not really happening in reality; and play as in "the opposite of work", which means that a game is supposed to provide an entertainment.

In addition to that, there are also four criteria that have to be in a game:
a. Rules, which are the things that the players can and cannot do in the game;
b. Goals, which are the victory condition or the strategy needed to win the game;
c. Chance, which means that the course of the game should always be different; and
d. Competition, which means that the players should compete, and there should be winners and losers (Kramer, 2000).

In summary, a game is an activity that is done with the purpose of entertaining the players of the game. Moreover, a game has to have some criteria for it to be
able to be considered as a game. Based on the criteria that are provided above, a game generally should have structures of how the game should be played, rules of what and what not to do, goals to achieve victorious, varying chance of winning and competition between the participants.

### 2.7. Vocabulary Games

A vocabulary game, according to Lee (1979), is a language teaching game in which students' attention is focused mainly on words. There are 8 types of vocabulary games that are commonly used in language teaching (including vocabulary teaching (Zhu, 2012): guessing games, picture games, sound games, mime, fact-finding games, debates, jigsaw games, and role plays.

### 2.8. The Four Vocabulary Games Used in This Research

In this research, the vocabulary games that were used in the treatment were Charades, Pictionary, Word Scramble, and Apple, Orange, Banana. Each of the game used in this research falls under the guessing games category. The details of how each game was played are as follows:

### 2.8.1. Charades

The researcher divided the students into two groups. One student from each group then came in front of the class and was assigned a piece of paper containing a vocabulary to act out. The student's team was then supposed to guess what vocabulary was being acted out. The first team who guessed right gained a point. The steps were repeated with different students until all target words had been acted out.

### 2.8.2. Pictionary

The setup of this game was the same as charades. However, instead of acting out the assigned vocabulary, students drew the vocabulary. The rest of the procedure was exactly the same as charades.

### 2.8.3. Word Scramble

The teacher divided the class into two groups. One student of each group was asked to come in front of the class. After the students had come in front of the class, the teacher wrote a scrambled English word on the whiteboard. The teacher then gave a definition or a description of the word in Bahasa Indonesia. After hearing the definition/description, the two students would have to arrange the scrambled word correctly. The student who arranged the word the fastest gained a point for the team he/she represented. The games were repeated until all target words were covered.

### 2.8.4. Apple, Orange, Banana

The researcher will draw a table in a whiteboard and write "English word", "sentence" and "draw" in the first row of the table. After that, the researcher will divide the class into groups of three students. Each student will copy what the teacher has written on the table into their own paper sheet. The teacher will then assign a different task for each student inside their respective group.

For instance, in group 1 that consists of John, Jennifer, and Jenny, the teacher assigns John to listen to the English word that the teacher will say and write it into the "English word" column. The researcher then asks John to come in front and show the word to the teacher. If John spells the word wrong, then the researcher will return the sheet to John and ask him to correct it whether through looking at the dictionary or through looking
at their notebook. After John has successfully written the correct spelling of the word, the researcher assigns Jenny to make a sentence based on the word that John has written. Lastly, the researcher assigns Jack to draw the sentence that has been created by Jenny.

### 2.9. The Benefits of Involving Games in Language Teaching

Donmus (2010) states that educational games have attained a lot of attention in a language teaching process recently due to the fact that games make language teaching more entertaining. In addition to that, Kuzu and Ural (as cited in Donmus, 2010) also state that combining education and games causes the learning environment to not only be educational, but also entertaining for the leaners, resulting in learners gaining positive attitude and becoming more motivated in learning

In terms of implementing games in EFL classrooms, Crookal (1990) states that games help to improve students' confidence in EFL classrooms by reducing their anxiety. This anxiety occurs due to students being afraid of making mistakes in the class, as they will face teachers' punishments and criticism. The reason why using games in teaching vocabulary can alleviate students' anxiety and boost their confidence to participate more in the learning process is because the nature of games is fun, therefore involving games in teaching will result in a fun classroom environment, which will make learners less afraid of making mistakes.

Another benefit of using games in the teaching process is games can improve learners' social skills. Because games usually involve friendly competition and require the participants to be more cooperative to achieve victory, involving games in the teaching process will encourage the learner to work well together as a team. It then will improve their communication and cooperation skills (Sorayaie-Azar, 2012).

The literatures provided above indicate that using games in language teaching have multiple benefits on the students. For example, using charades game can improve some aspects of language such as spelling, pronunciation, and word meaning. Not only improving the knowledge, using games can also improve students' motivation in learning a language, as games help maintain their attention and interests toward the teaching process.

### 2.10. Teaching Procedure

In a hope for improving students vocabulary retention, the researcher implemented four vocabulary games after introducing to them the target words. The procedure of the teaching is as follows:

## a. Pre-Activities

1. The teacher greets the students.
2. The teacher asks the class leader to lead a prayer for the class before starting the learning activity.
3. The teacher does a roll call to check students' attendance.
4. The teacher activates students' schemata by asking them regarding jobs and occupations that are about to be discussed that they know in their mother tongue.

## b. While-Activities

1. The teacher introduces the students about farmer.
2. The teacher provides the students vocabulary related to farmer.
3. The teacher provides the students the explanation of the words and how the words are used in context.
4. The researcher asks the students to pronounce the words correctly and provides example sentences that relate to everyday life.
5. The teacher asks the students to write down the words that have been introduced to them.
6. The teacher plays one of the four games using the words that have been learned.

## c. Post-Activities

1. The teacher gives the summary of what has been learned in this meeting.
2. The teacher gives the students feedback of their performance in this meeting.
3. The teacher gives a brief explanation of what will be learned in the second meeting.
4. The teacher asks the class leader to lead a closing prayer to close this meeting.

### 2.11. Theoretical Assumption

In line with the theories provided above, the researcher assumed that vocabulary is the integral part of language learning. Vocabulary provides the basis of the four language skills, which are reading, writing, listening, and speaking. Therefore, without an adequate vocabulary knowledge of a language, it will be hard for someone to express themselves in that language.

It is also true when it comes to students in regards to learning English. Students are often discouraged to learn English because they find it to be hard due to their limited vocabulary knowledge. For that reason, teachers play a role in providing them an effective teaching method to improve their vocabulary knowledge.

Implementing vocabulary games, based on the theories provided, are one of the effective ways to improve students' vocabulary knowledge. Not only that, implementing vocabulary games also offers a fun learning environment and thus motivating students to engage in the learning activity. Depending on the games, vocabulary games can help students understand and maintain the vocabulary that are being learned through visualization, action, or solving a problem/puzzle.

For the reasons stated above, four vocabulary games are implemented to help improve students' vocabulary knowledge. The following is the assumption the researcher made by using four vocabulary games:

### 2.11.1. Charades

The researcher picked Charades as one of the four vocabulary games implemented in this research because the researcher assumes that Charades will help students to understand the meaning of a word better through the visualization of the word being acted out. Not only that, through teachers' correction, Charades is also able to indirectly improve students' pronunciation of a word, as students are required to say the word out loud when guessing the word that is being acted out. Therefore, although this research focused on the meaning aspect of knowing a word, the implementation of Charades was also expected to help students in knowing the spoken form of the word, which includes being able to recognize the word when it is heard and at the other end of the receptive-productive scale, being able to produce the spoken form in order to express a meaning (Nation, 2001).

### 2.11.2. Pictionary

One of the meaning-oriented activities suggested by Nation (2001) to help students understand the meaning of a word was vocabulary learning through images. In the game of Pictionary, students are required to guess a word through the images that are drawn in the whiteboard. It is expected that they will understand the meaning of a word better through image visualization. They also have to say the word out lout when guessing the word through the drawn image, thus, similar to Charades, helping them in pronouncing the word.

### 2.11.3. Word Scramble

In this game, the appointed students are required to arrange a scrambled English word into the correct form while the teacher helps the students by providing the L1 or students' first language (Bahasa Indonesia, in the case of this research). The researcher assumes that by implementing this game, students will understand a word better through the definition provided by the teacher. Moreover, through arranging the word, it is also expected that students will improve their spelling.

### 2.11.4. Apple, Orange, Banana

The researcher assumes that this vocabulary game will cover a lot of important aspects for understanding a word. In this game, students are required to write down a word that the researcher says out loud. Then, they have to create a sentence using the word that has been written down. Lastly, they need to draw a picture of the sentence that they have made. Through those activities, it is assumed the meaning aspect and the form aspect of a word (written and spoken) are covered.

In conclusion, it is assumed that vocabulary games, especially four vocabulary games chosen by the researcher, are able to help students' vocabulary knowledge and vocabulary retention.

### 2.12. Hypotheses

Hypothesis (plural hypotheses) is a temporary answer toward the research question of a research. The reason why it is called a "temporary answer" is due to the fact that it is proposed based on available theories and facts that need to be proven true (Santoso, 2015).

In order to answer the questions of the study and in the light of the theoretical and practical justifications and the results of the previous studies, the following hypotheses are formulated:
$\mathrm{H}_{1}=$ There is a significant difference on students' English vocabulary retention at SMPQTA An-Nur Gedong Tataan after the implementation of four vocabulary games.
$\mathrm{H}_{0}=$ There is no significant difference on students' English vocabulary retention at SMPQTA An-Nur Gedong Tataan after the implementation of four vocabulary games

## III. RESEARCH METHOD

### 3.1. Research Design

This research employed a one-group pretest-posttest design. According to Arikunto (2010), one-group pretest-posttest design is a type of pre-experimental design where the research starts with conducting a pretest before administering the treatment, then a posttest will be given after the treatment is over.

The following is the illustration of one-group pretest-posttest design:

## Graph 3.1 One-Group Pretest-Posttest Illustration

| $\mathrm{O}_{1}$ | X | $\mathrm{O}_{2}$ |
| :--- | :--- | :--- |

Notes:
$\mathrm{O}_{1}=$ pretest
$\mathrm{X}=$ treatment or intervention
$\mathrm{O}_{2}=$ posttest

### 3.2. Research Instrument

### 3.2.1. Vocabulary Translation Test

A vocabulary measure was developed to obtain the data in this research. The test was in a form of a translation test. The test was constructed based on the topic on the seventh-grade syllabus of 2013 Curriculum chosen by the researcher, which was "Jobs and Occupations". The sample of the test were as follows:

My father plants a corn seed in the garden.
That policeman arrests a store burglar.

The students' objective was to provide the Bahasa Indonesia equivalent of the underlined words in the given sentences. The test consisted of 20 items, one for each of the target items in the sample. The point of each item of the test was 5 , with the maximum obtainable points of 100 . The students were awarded 5 points for providing an Indonesian word that expressed a possible meaning of the target English word, even if it was not the meaning that fitted the sentence in the test item. In addition, the Indonesian word did not need to belong to the same word class as the English one. The researcher set a time limit of 60 minutes for the students to finish the test.

### 3.3. N-Gain Score Testing

To help determining the effectiveness of the four vocabulary games picked for this research, the researcher utilized N -gain score testing to find out individually regarding the increase in each of the student post-test after receiving the treatment.

The formula of calculating N -gain score is as follows:

$$
g=\frac{(\text { Posttest Score }- \text { Pretest Score })}{(100-\text { Pretest Score })}
$$

Where:
$g=$ gain
Moreover, the criteria proposed by Hake (1999) in the table below was used to determine whether the method of teaching is effective:

Table 3.1 N-Gain Effectiveness Category

| Percentage (\%) | Interpretation |
| :---: | :---: |
| $<40$ | Ineffective |
| $40-55$ | Less effective |
| $56-75$ | Adequate |
| $>76$ | Effective |

### 3.4. Variable of Research

The variables of this research were the effectiveness of vocabulary games and vocabulary retention. The independent variable was vocabulary games; while the dependent variable was students' vocabulary retention.

### 3.5. Population and Sample

### 3.5.1. Population

This study was conducted at SMPQTA An-Nur, located at Kutoarjo, Gedong Tataan. The population of this study was all of the seventh-grade students of 2022/2023 academic year. The number of class and the total number of the students are shown in the following table:

Table 3.2 The Population of the Study

| CLASS | NUMBER OF STUDENTS |
| :---: | :---: |
| VII | 25 |

### 3.5.2. Sample

Due to the fact that SMPQTA An-Nur at the time of this research only had one seventh-grade class with a relatively small number of students, the technique that was used for selecting the participant of this study was saturated sampling.

Saturated sampling is a type of non-probability sampling where all members of the population are selected as the sample. This sampling technique is often used in a relatively small population size (Sinambela, 2014).

Therefore, the sample of this research was 25 seventh-grade students. Out of 25 students, 10 students were males and 15 are females.

### 3.6. Data Collecting Methods

The vocabulary teaching was conducted as a two-hour lesson two times a week for two weeks. The pre-test was administered a day before the treatment. In the treatment period, the students received the treatment using vocabulary games twice a week for one week. There were four vocabulary games that were used in this research: Charades, Pictionary, Word Scramble, and Apple, Orange, Banana. A week after receiving the treatment using vocabulary games, the students were given the delayed post-test to find out about their vocabulary retention ability. There was a total of 40 new words introduced and tested to the students with the topic of "Jobs and Occupations" at the end of the research.

### 3.7. Try-Out

The try-out test was conducted before the pre-test, the treatment, and the posttest toward the eighth-grade students at SMPQTA An-Nur Gedong Tataan with the objective of investigating the reliability of the test. See Appendix for the detail of the reliability testing.

### 3.8. Validity and Reliability

### 3.8.1. Validity

A test is considered valid if the test measures the object to be measured and each indicator as a whole represents the material to be measured. In this research, the researcher emphasized content validity and construct validity to measure the validity of the vocabulary test that the researcher has constructed.

### 3.8.1.1. Content Validity

An instrument is considered valid in terms of its content validity when it covers all the lesson materials that have been taught in the learning process. Because the materials are provided within the curriculum, this validity is often called curricular validity (Arikunto, 2021).

Therefore, to fulfill the content validity of this research's instrument, the researcher formed a test that is based on the seventh-grade syllabus of the 2013 Curriculum. The chosen topic based on the 2013 Curriculum syllabus for the seventh-grade is "Jobs and Occupations". The researcher picked four jobs as the topic of this research: farmer, police officer, chef, and doctor. The vocabulary related to said jobs was picked by the researcher and was taken for the test items through systematic random sampling. The content words utilized in the items are noun and verb. The following table is the distribution of the test items for the try-out test:

Table 3.3 Content Word Specification of the Try-Out Test

| No. | Content <br> Words | Item Number | Total | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Noun | $1,3,4,5,7,8,10,12,14$, <br> $16,18,19$ | 12 | $60 \%$ |
| 2 | Verb | $2,6,9,11,13,15,17,20$ | 8 | $40 \%$ |
| Total |  |  | $\mathbf{2 0}$ | $\mathbf{1 0 0 \%}$ |

Table 3.4 Topic Specification of the Try-Out Test

| No. | Topic | Item Number | Total | Percentage |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Farmer | $2,4,15,20$ | 4 | $20 \%$ |  |  |  |
| 2 | Police Officer | $5,7,10,11,12$ | 5 | $25 \%$ |  |  |  |
| 3 | Chef | $1,3,9,13,14,17$ | 6 | $30 \%$ |  |  |  |
| 4 | Doctor | $6,8,16,18,19$ | 5 | $25 \%$ |  |  |  |
| Total |  |  |  |  |  | $\mathbf{2 0}$ | $\mathbf{1 0 0 \%}$ |

### 3.8.1.2. Construct Validity

An instrument is considered valid in terms of its construct validity when it is in accordance to the theory of what is being tested. In the language learning environment for example, teachers need to understand the theory of a certain language skill (for example: reading, writing, listening, or speaking) if they want to assess learners' ability in that particular language skill (Nurweni, 2018).

The theory being tested in this research is regarding the vocabulary retention. There is no specific test for measuring vocabulary retention. However, the previous conducted researches provided by the researcher (Taheri, 2014; Stavy, 2019; and Shabaneh, 2019) used vocabulary achievement test with a delayed post-test as a means to measure the participants' vocabulary retention. Therefore, the administration of the posttest of this research was delayed a week after the last treatment.

### 3.8.2. Reliability

The reliability of test is the extent to which the results of a test are consistent across different occasions of testing, different editions of the test, or different raters scoring the test taker's responses (Livingston, 2018). If the results of the test are different on difference occasions of testing, then the difference should not be meaningful enough to make it unreliable (Arikunto, 2021).

The method that was used to test the reliability of the test was Cronbach's Alpha, with the help of SPSS 25 for maximum accuracy. The following is the formula of the Cronbach's Alpha:

$$
\alpha=\frac{N \bar{c}}{\bar{v}+(N-1) \bar{c}}
$$

Where:
$\alpha=$ Cronbach's Alpha value
$N=$ Number of items
$\bar{c}=$ Average inter-item covariance among items
$\bar{v}=$ Average variance

### 3.8.2.1. The Result of the Try-Out Test

The result of the try-out test is displayed in the table below:

## Table 3.5 The Reliability of the Test

Reliability Statistics

| Cronbach's <br> Alpha | N of Items |
| ---: | ---: |
| .705 | 20 |

The table above shows the number of items and the value of the Cronbach's Alpha. It is shown that the value of the Cronbach's Alpha is 0.705 . According to the Cronbach's Alpha's testing criteria, if the value is equal or above 0.70 , the test is considered reliable. Therefore, based on previously mentioned criterion, the researcher came to the conclusion that the vocabulary test used in this research was reliable. Therefore, this test was used in both the pre-test and post-test.

### 3.9. Normality Test

The purpose of normality test is to find out whether or not the distribution of the data used in this research is normal. This test is also a pre-requisite for administering a parametric t -test, especially paired-sample t -test, which is the statistical test used by the researcher to determine the difference between students' pre-test and post-test scores. If the data distribution is normal, then a researcher can proceed to use the parametric t-test. Otherwise, if the data distribution is not normal, then a researcher should resort to the non-parametric t -test ones instead.

The normality of this research's data was analyzed using the KolmogorovSmirnov normality test. For maximum accuracy, SPSS 25 program was used to calculate the necessary data.

### 3.10. Research Procedure

### 3.10.1. Determining the Problem

This research originated from several problems that occurred in the teaching-learning process, especially in learning English as a foreign language. Some students have difficulty in understanding and producing English words due to their lack of vocabulary.

In the case of the seventh-grade students at SMPQTA An-Nur Gedong Tataan, most of them have a very limited vocabulary knowledge. They even struggle with simple and most-known English expressions, such as greetings (good morning, good afternoon, etc.), thanking expressions (thank you, you are welcome, etc.). They also struggle to name things that are around them in English.

### 3.10.2. Selecting and Determining the Sample

Due to a relatively small number of students and having only one class group, the researcher decided to pick all 25 students of the seventh grade at SMPQTA An-Nur Gedong tataan as the sample of this research. Out of 25 students, 10 are males and 15 are females.

### 3.10.3. Selecting the Instrument and the Topic

Due to their poor vocabulary knowledge, the researcher decided to pick words that frequently appears in English texts and daily life and therefore avoiding difficult words. The words were picked from Nation's 3000 most frequent English words and the New General Service List (NGSL).

### 3.10.4. Conducting the Try-out

To make sure that the test was reliable, the researcher conducted a try-out toward the eight-grade students of the SMPQTA An-Nur Gedong Tataan. The eight-grade students consist of 29 students. Out of 29 students, 21 are males and 8 are females.

### 3.10.5. Administering the Pre-Test

The pre-test was administered with a time limit of 60 minutes to determine students' vocabulary knowledge before the treatment. The students were given a vocabulary translation test which consisted of 20 items. Due to the chosen topic for this research, which was "Jobs and Occupations", the researcher focused on noun and verb only.

### 3.10.6. Conducting the Treatments

The vocabulary teaching was conducted as a two-hour lesson two times a week for two weeks. The pre-test was administered a day before the treatment. In the treatment period, the students received the treatment using four vocabulary games that have been picked by the researcher twice a week for two weeks. The four vocabulary games that were used in this research were as follows: Charades, Pictionary, Word Scramble, and Apple, Orange, Banana.

### 3.10.7. Administering the Post-Test

For the purpose of investigating the students' vocabulary retention after they were given the treatment, the researcher delayed the administration of the post-test for one week after the last treatment was conducted.

### 3.11. Data Analysis

The data obtained from the vocabulary achievement test scores in the pretest and posttest was coded for statistical analysis to respond to the research questions. The Statistical Package for the Social Sciences (SPSS, version 25.0) was employed for this statistical analysis. To answer the research question, descriptive statistic namely frequency will be applied to obtain the patterns of students' vocabulary test scores in the pre-test and the post-test and to measure their achievements. Then, the data was translated into a chart to identify the findings of the study. Next, to answer the hypotheses of the research, paired samples t -test was computed to determine whether there was any significant difference between the pre-test and the post-test. The data obtained was transferred into a table and based on this, the findings were specified.

## V. CONCLUSIONS AND SUGGESTIONS

### 5.1. Conclusions

The objective of this research is to investigate whether the four vocabulary games in this research are effective in improving students' vocabulary retention at SMPQTA. The researcher found that there is a positive difference in students' vocabulary achievement after the implementation of four vocabular games. There is a 35 -point increase in the mean score between the pre-test and the posttest. There is also a significant difference based on the value of the sig. (2tailed), which is $0.000<0.05$ and that the $t$-value is higher than the $t$-table (15.920>2.064). Although the N -gain testing shows that the implementation of the four vocabulary games is less effective in improving students’ vocabulary retention overall with the mean of the gain of $45,6 \%$, it is also shown that students who initially performed decently in the pre-test gained a significant increase of as high as $81.82 \%$. Furthermore, out of 25 students, 14 students achieve an N -gain score of above $40 \%$.

Therefore, based on the fact that there is positive significant difference between the pre-test and post-test score, the researcher put forward a conclusion that the four vocabulary games are in fact effective in improving students' vocabulary retention.

### 5.2. Suggestions

Taking into account the conclusion provided above, some suggestions are listed as follows:

1. Vocabulary is the most crucial component in language and is related to other skills so that further research could investigate the effect of vocabulary mastery on other skills, i.e., reading, listening, speaking, and writing.
2. Based on the discussion of the findings in this study, teachers are suggested to provide material that is for teaching reference to teach foreign languages, specifically English, also to use media that are appropriate for students' needs and should be contextual so that the students become interested in the learning process and do not get bored.
3. It is recommended for future researches to focus on more vocabulary knowledge aspects rather than focusing only on one aspect. It is also recommended to specify which game performs better at improving students' vocabulary retention and at improving a particular vocabulary knowledge aspect if there is a plan to use multiple vocabulary games.
4. For future researchers who are willing to conduct the same research, it is encouraged to use the same variables in this study, but with different subject circumstances than usual.
5. Future researches could prepare carefully about the length of time that will be given during treatments because many unexpected things happen and their time is limited for other activities. Also, researchers need to prepare materials and explain instructions in student worksheets bilingually.
6. It is recommended for future researches to have a conducive learning environment by making sure that all students seriously invested in the vocabulary games being played.

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