## THEAPPLICATION OF MNEMONICS

## IN OPTIMIZING VOCABULARY TEACHING FOR THE THIRD GRADE STUDENTS OF SMP AL IRSYAD PEKALONGAN



THESIS
In Partial Fulfilment of the Requirements for Master Degree in Linguistics

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## CERTIFICATION OF ORIGINALITY

I hereby declare that this study is my own and that, to the best of my knowledge and belief, this study contains no material previously published or written by another or material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institutes of higher learning, except where due acknowledgement is made in the text of the thesis.

Semarang, August 2019

Ivan Chabibilah

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# THE APPLICATION OF MNEMONICS 

## IN OPTIMIZING VOCABULARY TEACHING

FOR THE THIRD GRADE STUDENTS OF SMP AL IRSYAD
PEKALONGAN

IVAN CHABIBILAH<br>Master's Program in Linguistics<br>Diponegoro University - Semarang


#### Abstract

This paper focuses on the use of mnemonics technique in teaching and learning English vocabulary. This study aims to know the effectiveness of using mnemonics in helping the students memorizing English vocabulary. Vocabulary is one of the most important aspects in learning a language. Therefore, it is the first step and the center of language acquisition.Mnemonics is considered to be the most suitable teaching technique as it will give a deeper impression which will lead to the long term memory. Teachers should apply an interesting teaching technique so that the students will have more attention to the material given to them. Based on some language experts, the right teaching technique will give a good atmosphere and great outcome in language acquisition. This paper uses a mix method triangulation. The data were obtained in qualitative and quantitative from the questionnaire, observation before, during and after the implementation of the actions, interview, and the students' test scores. The data were in the forms of questionnaire, field notes, observation checklist and students' test scores. Then the researcher also tested the normality data that was analyzed using SapphiroWilk test. Meanwhile, the researcher used Independent T-Test to know wheter the distribution of the data is normal or not. Based on the research result, the application of mnemonics is believed can help students to learn vocabulary and the teacher can teach the students easily as the normality data is normal and the distribution of the data is normal too.


Keywords: Mnemonics, Teaching Technique, Vocabulary Teaching

## CHAPTER I

## INTRODUCTION

### 1.1. Background of the Study

Vocabulary is one of the most important aspects in learning a language andit is also the first and foremost important step in language acquisition. In other words, learning vocabulary is one of the first steps in learning a second language, but a learner never finishes vocabulary acquisition. Whether in one's native language or a second language, the acquisition of new vocabulary is an ongoing process. Vocabulary is the knowledge of words and word meanings. As Steven Stahl (2005) puts it, "Vocabulary knowledge is knowledge; the knowledge of a word not only implies a definition, but also implies how that word fits into the world."

Vocabulary knowledge is not something that can ever be fully mastered; it is something that expands and deepens over the course of a lifetime. Instruction in vocabulary involves far more than looking up words in a dictionary and using the words in a sentence. Vocabulary is acquired incidentally through indirect exposure to words and intentionally through explicit instruction in specific words and word-learning strategies.

There are many techniques which help one acquire new vocabulary. In a classroom where students are not finding themselves comfortable with L2, language learning can be made interactive and interesting with the introduction of appropriate vocabulary exercises.Robert Lado (1955) talked about patterns of difficulty in vocabulary teaching. He highlighted key issues related to words, the
native language factor and about patterns. He stated that while dealing with vocabulary one should take into account three important aspects of words - their form, their meaning and their distribution - and one should consider various kinds of classes of words in the function of the language. He said that the forms, meaning distribution and classification of words are different in different languages. He revealed that these differences might lead to vocabulary problems.

Visnja Pavicic (2003) dealt with a way to improve students' abilities to explore, store and usage of vocabulary items. He determined the role of vocabulary teaching and how a teacher could help their learners. He laid emphasis on self initiated independent learning with strategies, in which formal practices, functional practices and memorizing could be included. He said that the teacher should create activities and tasks to help students to build their vocabulary and develop strategies to learn the vocabulary on their own.

Traditionally, vocabulary was neglected in language teaching programs and curriculum for the sake of grammar and other parts of language. The teaching of vocabulary above elementary levels was mostly incidental, limited to presenting new items as they appeared in reading or sometimes listening texts. This indirect teaching of vocabulary assumes that vocabulary expansion will happen through the practice of other language skills, which has been proved not enough to ensure vocabulary expansion.

Nowadays it is widely accepted that vocabulary teaching should be part of the syllabus, and taught in a well-planned and regular basis. Some authors, led by

Lewis (1993) argue that vocabulary should be at the centre of language teaching, because 'language consists of grammaticalized lexis, not lexicalized grammar'.

Students might even have a receptive knowledge of a wider range of vocabulary, which means they can recognise the item and recognise its meaning. Nevertheless, their productive use of a wide range of vocabulary is normally limited, and this is one of the areas that need greater attention. At this stage we are concerned not only with students understanding the meaning of words, but also being able to use them appropriately, taking into account factors such as oral or written use of the language; degree of formality, style and others

The implication of the aspects just like homonymy, synonymy, etc., in teaching is that the goals of vocabulary teaching must be more than simply covering a certain number of words on a word list. We must use appropriate teaching techniques that can help realize this global concept of what it means to know a lexical item. And we must also go beyond that, giving learner opportunities to use the items learnt and also helping them to use effective written storage systems.

Diane August and her colleagues (2005) suggest several strategies that appear to be especially valuable for building the vocabularies of ELLs. These strategies include taking advantage of students' first language if the language shares cognates with English, teaching the meaning of basic words, and providing sufficient review and reinforcement.

A mnemonic is something which we can use to remember things much easier. As is often the case, it could be a phrase, a short song, or something that is
quite easily remembered, that we use to remember something that would otherwise would be difficult to remember. Simply, mnemonics are memoryassisting devices. They can be patterns of letters, ideas, images, associationsanything that can help us remember.

A mnemonic technique is one of many memory aids that is used to create associations among facts that make it easier to remember these facts.Mnemonics, which belong to Fun Teaching Techniques, can be applied in teaching vocabulary as it has a different approach in reaching the goals. This technique emphasizes on giving a deep impression in a fun way of long terms memory as stated in mental lexicon.

The English teaching to the students of elementary school has been introduced as one of the local content subjects in the curriculum for basic education since 1994 in Indonesia. The English teaching in the early age focuses on introducing English as the first foreign language to the students. The main objective of teaching English in the early age is the students can achieve the level of performative competence. In this level, it is hoped that the students can read, write, listen, and speak by using symbols in the English teaching and learning.

Most of the students in Pekalongan learn English since they were in elementary school as one of local content subjects. As a matter of fact, only few of the students got their first English lesson in Kindergarten. But it is different with the curriculum for high school, English is a main subject taught in the class and it will be evaluated in the final examination. As one of public high schools, SMP Al Irsyad Pekalongan also has English in their curriculum. It is an

Islamicpublic high school located in Pekalongan City. Mostly, the language instruction in the English class has not been delivered in bilingual yet. The English teacher graduated from an English Education department of IKIP. In this case, the teacher's role is also as the researcher's collaborator. The majority of the students here live in subdistrict. Most of their parents are laborers. They do not have English background in their family. All of them speak Javanese and Indonesian language in their daily conversation either in the school or at home. The school uses a School-Based Curriculum. It is developed by the school through the teachers' group work meeting that is constructed based on the school condition and the surroundings.

Based on the observation of the researcher on November 21, 22, 23 and 24 2016,the researcher found some problems in the teaching and learning process in this school that affect the students' English vocabularymastery. During the observation, the researcher found that the English teaching technique in this school was still conventional because the teacher was the one and only learning source for the students. The activities among the students only listened to the teacher's explanation while taking notes that made the students passive. The researcher also found that the students were not interested in the materials given by the teacher and the students were not motivated during the teaching and learning process. The researcher also found that most of students could not understand the English subject even memorize the materials especially the large number of vocabulary that were taught during the fourth grade of the elementary school.

Besides, the researcher also found that the students could not understand the concept of making simple sentences related to the English tenses that were also taught during the fourth grade of the elementary school, especially when their teacher asked them to make sentences about the student'sdailyactivities as well as about theirhobbies in the class. Besides, the students did not do appropriate actions based on the teacher's instructions and did not respond to the teacher's instruction by answering the teacher's questions during the teaching and learning processes. Mostly the students didn't have any good support either from internal factor or external factors. The internal factors might come from themselves in forcing to study or eager to know to something they didn't know before. Whereas, the external factors may come from the surrounding people and less facilities in their environment. The problems would be continued if there was no renewal, the teacher didn't try to find solution by applying new strategy in teaching and learning.

From these reasons, the researcher was interested to conduct a study to solve the problems. The researcher applied an action, in this case a teaching technique that is appropriate to improve the students' English achievement in the teaching and learning process in the third grade of SMP A1 Irsyad Pekalongan.

### 1.2. Research Problems

From the background in the previous part, this study intends to find out:

1. How do we apply mnemonics in teaching vocabulary?
2. How effective is mnemonics in teaching vocabulary?

### 1.3. Objectives of the Study

1. The application of mnemonics in optimizingvocabulary teaching.
2. The Effectiveness of the mnemonics application in optimizing vocabulary teaching

### 1.4. Significance of the Study

This paper focuses on teaching vocabulary using mnemonics in vocabulary teaching. As we know, some appropriate teaching techniques are needed in giving the students description and making them easier to grab the meaning of the words taught as well as how they should use the words. It is also stated that one principle of effective vocabulary learning is to provide multiple exposures to a word's meaning.

The writer hopes that the study is very useful for anyone who wants to study further about the effective teaching technique, especially for the student who will carry out a research onthe application of mnemonics in vocabulary teaching.

This research provides the field of literature which can be enriched with teaching technique analysis. It's also can be a good source for those who want to study and understand as well as increase their knowledge on a fun teaching technique especially using mnemonics in teaching vocabulary. It would be nice when the teaching and learning process can work well in a smooth and comfortable condition, the students showed their enthusiast and full of spirit. There is something to be considered when we wanted to apply the mnemonics
strategy; we should apply something unique, weird or unusual to make something unforgetable. Sometimes we needed to dramatize the word to the students.The main purpose is to make the students easier in recalling the information. In addition, creating a condusive atmosphere for students in teaching and learning process was really important too.

## CHAPTER II

## LITERARY REVIEW

### 2.1. Previous Study

Vocabulary is one of the topics discussed dealing with the process of language acquisition process. As the foundation of a language, vocabulary must be learned. The writer foundsome papers discuss mainly on the importance of vocabulary, vocabulary teaching as well as the most appropriate teaching technique.

Ayu Puspita Sari (2013) discussed on the use of mnemonics in students' English achievement. Mnemonic offers some methods in increasing memorisation in learning. This paper aims to increase the students' English achievement in general though the almost all the aspects being discussed considered as vocabulary learning. Since this paper doesn't focus on one specific skill, it doesn't explore more the technique as well.

Fatemeh Anjomafrouzi and Gaffar Tajalli (2012) did a research for Iranian English as foreign language learners. Their research entitled "Effects of Using Mnemonics Associations on Vocabulary Recall of Iranian EFL Learners over Time." They did the research in two separate experiments with adolescents and adults. There are experimental group and control group as well. The data showed that there was a better performance for mnemonics group compared to control group after applying mnemonics associations. The vocabulary recall for both adolescents and adult students was affected by the application of mnemonics method either for receptive vocabulary or productive vocabulary.

Naveen Kumar Mehta (2009) stated about the vocabulary teaching methodologies which can be applied to the students. In a classroom where students are not finding themselves comfortable with L2, language learning can be made interactive and interesting with the introduction of appropriate vocabulary exercises. This paper is an attempt to study and explore the various methodologies that can be incorporated in the teaching of vocabulary items in a language classroom.It is noteworthy to mention here that vocabulary items are imparted mostly by translation: either a list of words with their translation at the beginning of the lesson or the translation of the content having new words or glossaries at the very end. This is an erroneous practice as it leads to a state of confusion for the learners.

DeLashmutt (1987) did a research entitled "A Study of the Role of Mnemonics in Learning Mathematics." He explained about the usage of Mnemonics for the students in learning mathematics in effective way. He also stated that the reason why mnemonics is very important because it appears to be an effective approach for improving students comprehension test scores. The students who apply mnemonic technique will get higher comprehension score since the strategies improve their ability to memorise the factual information they needed in answering the test question.

On the teaching skills of vocabulary items, Frisby (1957) commented that "While the teacher is not, himself, concerned with the actual selection of vocabulary for text book purposes since practically all the books we use are based on limited vocabularies, it is important that he/she (the teacher) should know the
principles, which underlie vocabulary selection". Thus it signifies that a language teacher should be innovative and proficient in the application of methodologies pertaining to teaching vocabulary items in a classroom situation.

This paper discusses mainly on the effective methodologies that are often used by many teachers such as listening carefully, pronouncing the words and methods of grasping the meaning of the words. The key strategies in teaching vocabulary also become the important aspects being discussed in this paper. Since this study offers the general methodologies and teaching techniques, this paper doesn't explore more on the specific technique in detail.

Linda Diamond and Linda Gutlohn (2006) said that research shows that there are more words to be learned than can be directly taught in even the most ambitious program of vocabulary instruction. Explicit instruction in word-learning strategies gives students tools for independently determining the meanings of unfamiliar words that have not been explicitly introduced in class. Since students encounter so many unfamiliar words in their reading, any help provided by such strategies can be useful.

Word-learning strategies include dictionary use, morphemic analysis, and contextual analysis. For ELLs whose language shares cognates with English, cognate awareness is also an important strategy. Dictionary use teaches students about multiple word meanings, as well as the importance of choosing the appropriate definition to fit the particular context. Morphemic analysis is the process of deriving a word's meaning by analyzing its meaningful parts, or morphemes. Such word parts include root words, prefixes, and suffixes.

Contextual analysis involves inferring the meaning of an unfamiliar word by scrutinizing the text surrounding it. Instruction in contextual analysis generally involves teaching students to employ both generic and specific types of context clues.

Scott and Nagy (2004) stated in their research that a more general way to help students develop vocabulary is by fostering word consciousness, an awareness of and interest in words. Word consciousness is not an isolated component of vocabulary instruction; it needs to be taken into account each and every day. It can be developed at all times and in several ways: through encouraging adept diction, through word play, and through research on word origins or histories. Creativity plays an important role in developing and applying the suitable teaching and learning strategy.

According to Graves (2000), "If we can get students interested in playing with words and language, then we are at least halfway to the goal of creating the sort of word-conscious students who will make words a lifetime interest." There was no limit in modifying the strategy in retaining the information. The unusual or unique way sometimes help much in gaining the information we need easily.

In his research, Stahl (2005) said that students probably have to see a word more than once to place it firmly in their long-term memories. This does not mean mere repetition or drill of the word, but seeing the word in different and multiple contexts. In other words, it is important that vocabulary instruction provide students with opportunities to encounter words repeatedly and in more than one context.

Loraine and Lucas (1974) stated that sometimes refreshing the image by retrieving it helps reinforcing the memory such that it can be recall for as long as necessary. It is necessary for mnemonics instruction to be important because it is a good way to increase students comprehension test scores. That statement was also supported by Spackman (2009). In the final session, the learning outcomes are getting better.

Compared with other reseach, this paper focuses on teaching vocabulary using mnemonics teaching technique to recall the words the students have learned especially for the lower level of English as Foreign Language learners. As information, the students who become the respondents here were really less of motivation either for internal or external factor. They never push themselves to improve the vocabulary mastery as the environment didn't provide any support for them. So, the teacher should be aware and find the solution for the problem here. As we know, some appropriate teaching techniques are needed in giving the students description and making them easier to grab the meaning of the words taught as well as how they should use the words. It is also stated that one principle of effective vocabulary learning is to provide multiple exposures to a word's meaning. There is great improvement in vocabulary when students encounter vocabulary words often (National Reading Panel, 2000).

### 2.2. Theoretical Framework

In conducting a research, the theories are needed to explain some concept applied in the research concerned and some terms that are used in this study and
they need be theoretically explained. Here are some theories that support and construct this research.

### 2.2.1 Vocabulary

According to Jackson (2002), vocabulary is the stock of words in a language, or that is known or used by an individual, or that is associated with particular activity. Vocabulary can be defined as the words we teach in the foreign language.

Thornbury (2002) stated in his book How to Teach Vocabulary, vocabulary is very useful for anyone who studying a foreign language. In this case that vocabulary is one important area that should not be neglected in learning a language and it is very important in communicating with other people in spoken or written form. Vocabulary can be divided into two types; they are receptive vocabulary and productive ones. Receptive Vocabulary is words that cannot be produced correctly but understood through reading and listening activity and it requires a reader to associate label as in reading or listening. Productive Vocabulary is involved in using the words to stand for the meaning it represents and being able to think of suitable for the word if there are any. Productive vocabulary includes words that we use when we speak or write the words that we use in our own speech and writing are called productive or active vocabulary. Productive or active vocabulary means language items which the learner can recall and use appropriately in speech or writing.

### 2.2.2The importance of vocabulary

Hani Sutrisna (2012) said that vocabulary is defined as a large numbers of words that students have to know, not only memorizing the form of the word but also understand the meaning.

Based on the findings of the National Reading Panel (2000), they stated some important aspects. Firstly, intentional instruction of vocabulary items is required for specific texts. Secondly, repetition and multiple exposures to vocabulary items are important. And then, learning in rich contexts is valuable for vocabulary learning. Vocabulary tasks should be restructured as necessary. Vocabulary learning should entail active engagement in learning tasks.Computer technology can be used effectively to help teach vocabulary.Vocabulary can be acquired through incidental learning. How vocabulary is assessed and evaluated can have differential effects on instruction. And the last, dependence on a single vocabulary instructional method will not result inoptimal learning.

It is often assumed that when students do not learn new vocabulary words, they simply need to practice the words some more. Research has shown, however, that it is often the case that students simply do not understand the instructional task involved (National Reading Panel, 2000). Rather than focus only on the words themselves, teachers should be certain that students fully understand the instructional tasks (Schwartz and Raphael, 1985). The restructuring of learning materials or strategies in various ways often can lead to increase vocabulary acquisition, especially for low-achieving or at-risk students. Kamil (2004)declared
that once students know what is expected of them in a vocabulary task, they often learn rapidly.

### 2.2.3 What to Teach

There are several aspects of lexis that need to be taken into account when teaching vocabulary. The list below is based on the work of Gains and Redman (1986):

Boundaries between conceptual meaning: knowing not only what lexis refers to, but also where the boundaries are that separate it from words of related meaning (e.g. cup, mug, bowl).

Polysemy: distinguishing between the various meaning of a single wordform with several but closely related meanings (head: of a person, of a pin, of an organisation).

Homonymy: distinguishing between the various meaning of a single word form which has several meanings which are not closely related (e.g. a file: used to put papers in or a tool).

Homophony: understanding words that have the same pronunciation but different spellings and meanings (e.g.flour, flower).

Synonymy: distinguishing between the different shades of meaning that synonymous words have (e.g. extend, increase, expand).

Affective meaning: distinguishing between the attitudinal and emotional factors (denotation and connotation), which depend on the speakers attitude or the situation. Socio-cultural association of lexical items is another important factor.

Style, register, dialect: Being able to distinguish between different levels of formality, the effect of different contexts and topics, as well as differences in geographical variation.

Translation: awareness of certain differences and similarities between the native and the foreign language (e.g. false cognates).

Chunks of language: multi-word verbs, idioms, strong and weak collocations, lexical phrases.

Grammar of vocabulary: learning the rules that enable students to build up different forms of the word or even different words from that word (e.g. sleep, slept, sleeping; able, unable; disability).

Pronunciation: ability to recognise and reproduce items in speech.
The implication of the aspects just mentioned in teaching is that the goals of vocabulary teaching must be more than simply covering a certain number of words on a word list. We must use teaching techniques that can help realise this global concept of what it means to know a lexical item. And we must also go beyond that, giving learner opportunities to use the items learnt and also helping them to use effective written storage systems.

Understanding how our memory works might help us create more effective ways to teach vocabulary. Research in the area, cited by Gairns (1986) offers us some insights into this process.

It seems that learning new items involve storing them first in our shortterm memory, and afterwards in long-term memory. We do not control this process consciously but there seems to be some important clues to consider. First,
retention in short-term memory is not effective if the number of chunks of information exceeds seven. Therefore, this suggests that in a given class we should not aim at teaching more than this number. However, our long-term memory can hold any amount of information.

Research also suggests that our 'mental lexicon' is highly organised and efficient, and that semantic related items are stored together. Word frequency is another factor that affects storage, as the most frequently used items are easier to retrieve. We can use this information to attempt to facilitate the learning process, by grouping items of vocabulary in semantic fields, such as topics (e.g. types of fruit).

Oxford (1990) suggests memory strategies to aid learning, and these can be divided into:
creating mental linkages: grouping, associating, placing new words into a context;
applying images and sounds: using imagery, semantic mapping, using keywords and representing sounds in memory;
reviewing well, in a structured way;
employing action: physical response or sensation, using mechanical techniques.

The techniques just mentioned can be used to greater advantage if we can diagnose learning style preferences (visual, aural, kinaesthetic, tactile) and make students aware of different memory strategies.

Meaningful tasks however seem to offer the best answer to vocabulary learning, as they rely on students' experiences and reality to facilitate learning. More meaningful tasks also require learners to analyse and process language more deeply, which should help them retain information in long-term memory.

Forgetting seems to be an inevitable process, unless learners regularly use items they have learnt. Therefore, recycling is vital, and ideally it should happen one or two days after the initial input. After that, weekly or monthly tests can check on previously taught items.

The way students store the items learned can also contribute to their success or failure in retrieving them when needed. Most learners simply list the items learnt in chronological order, indicating meaning with translation. This system is far from helpful, as items are de-contextualised, encouraging students to over generalise usage of them. It does not allow for additions and refinements nor indicates pronunciation.

Teachers can encourage learners to use other methods, using topics and categories to organise a notebook, binder or index cards. Meaning should be stored using English as much as possible, and also giving indication for pronunciation. Diagrams and word trees can also be used within this topic/categories organisation. The class as a whole can keep a vocabulary box with cards, which can be used for revision/recycling regularly.

Organising this kind of storage system is time-consuming and might not appeal to every learner. Therefore adapting their chronological lists to include
headings for topics and a more complete definition of meaning would already be a step forward.

### 2.2.4 Mnemonics; AFun Teaching Technique

Teaching needs to apply the best technique to meet the students' needs. There are many kinds of techniques included in this category such as using picture or card, interactive games, role-play, quiz, act-out, singing a song, and dramatization.

The use of mnemonics mainly focuses on the student's easiest way in grabbing and understanding the meaning of the words. Collocations, proverbs, chunks, jokes either in Indonesian language or Javanese language may be used in a fun way to explore the meaning behind this technique. The definitions of the words are not explained explicitly but it imply in the words being dramatized.

Mnemonic is defined differently by some scholars. Higbee (1977) simply stated that mnemonics is "aiding the memory". The strategies for effective learning may be used along with mnemonic (Higbee, 1977:95).

A mnemonics is a specific strategy that is used as "mental linking tool" to take information items into students' mind system (Syah, 2005:161). As we know, sometimes students may find that memorizing is quite difficult and a little bit boring. By using mnemonics, it is hoped that students will be easier in recall and memorizing new words, numbers, terminology and concepts. A mnemonics is a strategy in memorizing and assimilating information (Joyce, Weil and Calhoun, 2009:33).

Mnemonic instruction is a way to help students remember information or
vocabulary more effectively and easily. It involves linking unfamiliar information to be learned with already known familiar information through the use of a visual picture or letter/word combinations. The use of mnemonics instruction on young adults at the secondary level had been of particular interest as secondary-school students, specifically those with disabilities, are particularly at risk in academic settings (Wolgemuth, Cobb \& Alwell, 2008). "Mnemonics are effective when they speed up learning, reduce confusion among similar items, and enhance longterm retention and application of the information." (Shmidman, \&Ehri, 2010, p.160).

### 2.3 Mnemonics Strategy

Here are some mnemonics strategies that may be used in EFL teaching and learning especially in vocabulary mastery stated by Cynthia G. Simpson (2011).

## 1. Acrostics

Acrostics could be a sentence that is developed to help the person retrieve letters.These letters then represent something that the person needs to remember. The sentence is a (catchy) way to make the information more meaningful and easier to remember. For example:
$\underline{\text { Every Good Boy Deserves Fudge }}$
This example helps an individual remember the lines of the treble clef (e, g, b, d, and f).

Another example of the use of acrostics is:
My Very Educated $\underline{M o t h e r ~} \underline{J}$ ust $\underline{\text { Served }} \underline{U}$ s Nine $\underline{P i z z a s}$

This particular example helps the person remember the order of the planets of the solar system(Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto). It must be noted that students must first know the vocabulary for the strategy to be effective. For example, if a student does not already know the names of the planets, the acrostic will be of no help to them in remembering their order.

## 2. Acronyms

Another popular form of mnemonics is the use of acronyms. Acronyms are words that are developed from the first letter of words to be remembered. The following examples demonstrate the use of acronyms:

The use of the acronym ROY G BIV to remember the colors of a rainbow:

## Red Orange Yellow Green Blue Indigo Violet

To remember the Great Lakes in United States, the acronym HOMES could be used:

## Huron Ontario Michigan Erie Superior

It must be noted that students must first know the vocabulary for the strategy to be effective. The same can be said for the young-adult learner. If a student has not already known the names of the Great Lakes, the acronym will be of no help to them when recalling the information. Also, students need to be taught how to use the process. If they are not taught how to use the acronym to assist them in studying, they will not be able to recall the information. For example, it is very common for students to respond to the question, "What are the five Great Lakes?" with the answer HOMES. In this case, the student has not been instructed properly
in linking the acronym to the information being recalled. The student recalls simply the acronym without understanding the content. The acronym cannot just be presented to the students or posted in the classroom. Students must be taught how to effectively use the acronym and practice using it so they can implement it independently.

In other case, teaching about The Order of Adjectives in the class, the teacher may use this method. To remember the order of adjectives in English the acronym DOSASCOMP could be used:

Determiner Opinion Size Age Shape Color Origin Material Purpose.
By using this method, the students easily remember how they should arrange the adjectives before a noun properly.

## 3. Loci

Most studies indicate that the method of loci assists with memorization such as remembering a shopping list. The method of loci is also commonly called the mental walk. In basic terms, it is a method of memory enhancement which uses visualization to organize and recall information. Many memory contest champions claim to use this technique in order to recall faces, digits, and lists of words. "It has even proven its worth in on-the-spot tasks. In one study, a group of highschool students used the technique to accurately remember the contents of a complex lecture, by attaching keywords from the speaker's arguments to various locations in their mental map" (Robson, 2011, pg.2).

## 4. Keyword Method

The keyword method is a technique (form of mnemonics) commonly used to learn vocabulary words. It takes unfamiliar information and makes it more meaningful and concrete and thus, easier to remember. When developing a keyword strategy you should follow the 3 R's: reconstructing, relating, and retrieving (Mastropieri, 1988). The use of the 3 R 's is as follows:
(1) Reconstructing: Coming up with a keyword. Something that is familiar to the student, easily pictured, and acoustically similar (sounds like the word to be learned);
(2) Relating: Next, link the keyword with the definition of the new word in a picture; and
(3) Retrieving: Lastly, teach the learner the process of how to effectively go through the steps to remember the new vocabulary word and meaning.

An example of the use of this strategy can be seen when teaching the word piggin and its meaning, bucket (Mastropieri, 1988). The word piggin means bucket.

Develop keyword-Pig- it is familiar to students, acoustically similar to piggin and can be easily pictured. Develop a picture of a pig sitting in a bucket (or wearing a bucket) linking the keyword and the definition of the word.

Teach the process : "When I say what does piggin, first think of the keyword pig (piggin-pig), then what was happening with the pig, the pig was sitting in a bucket (or the pig was wearing a bucket), then the answer-bucket."

In this research, the researcher tried to use this method in teaching the students about the Size in English. When we talk about Size, they are S for Small,

M for Medium and L for Large. The researcher connected the size in Javanese that accoustically sound the same, they are $S$ for Sesek, M for Mending and $L$ for Longgar. The students are feeing fun in doing this method. They also could remember well about the material taught.

## 5. Pegword Method

Pegwords can be used when numbered or ordered information needs to be remembered such as: One-bun; Two-shoe; Three-tree; Four-door; etc. Pegwords are substituted for the number to be remembered and associated with the other information (Scruggs, Mastropieri, Levin, \& Gaffney, 1985).

For instance, to remember that insects have six legs whereas spiders have eight legs, create a picture of insects on sticks and another picture of a spider on a gate. To remember Newton's first law of motion (objects at a rest tend to remain at rest unless acted on by another force), create a picture of a bun (pegword for one) resting. A more complex concept such as understanding what objects constitute a third class lever such as a garden rake, one might create a picture of a rake leaning against a tree (pegword for three, or third).

In teaching phrase "as you wish" in the class, the researcher use this method. A Javanese phrase "aiss yo wis" has the same sound with the English phrase and so does with the meaning. The students are really familiar with the phrase then.

## 6. Reconstructive Elaborations

Reconstructive elaborations are mnemonic strategies implemented when content area learning is presented. It involves students learning information taken from a
content area textbook that they need to remember. There are four types of reconstructive elaborations: symbolic, mimetic, acoustic, and the first letter strategy (Mastropieri\& Scruggs, 1989; Mastropieri, Scruggs, Whittaker, \&Bakken, 1994; Scruggs, \&Mastropieri, 1989). The definition and an example of each type of reconstructive elaboration is as follows:
(1) Symbolic-The concept the student needs to know is an abstract concept, but familiar (1st US Policy) to the student. A symbol is used to represent something to help the student remember. Example: Uncle Sam representing the US and their stance in the war.
(2) Mimetic-Student knows the word, but not meaning or the meaning is inaccurate. An example is trenches: Student is familiar with the word, but not with the meaning. Student is shown a picture of a trench with soldiers in it getting sick and dying.
(3) Acoustic-The word to be learned is a totally unfamiliar word and the student does not know the definition (same as keyword). Since the information was specifically related to content area information a new term was developed (acoustic).
(4) First Letter-A combination of Acronym and Key Word strategies. For example, imagine a picture of an Allied van on fire with a person saying FIRE! Teacher asks what are the Allied Powers? Student thinks of keyword-Allied Van. What is happening with the Allied Van? The van is on fire. What does FIRE stand for? It stands for France, Italy, Russia, and England. Those are your answers. Another example is imagining a picture of children playing TAG in

Central Park. What are the Central Powers? Student thinks of the keywordCentral Park. What is happening in Central Park? Children are playing TAG. What does TAG stand for? TAG stands for Turkey, Austria-Hungary, and Germany. Those are your answers. Again, the picture and mnemonic methods alone will not be as beneficial to your students as teaching them the process of remembering the pictures and how to retrieve the important to-be- learned information (Scruggs \&Mastropieri, 1989).

### 2.4. Mnemonics in other Fields

Actually, mnemonics strategy not only could be applied in language, but also in any other fields. Almost in every parts in this life, can be connected with the using mnemonics. Start from the simple thing such as remembering the shopping list for mother who are going to supermarket or traditional market to buy some of the daily needs.

### 2.4.1 Mnemonics Strategy in Mathematics

Yokhanan Ardika and A, Sardjana (2016) did a quasi-experimental approach descriptive qualitative-quantitative research on the effectiveness of using mnemonics technique in memorising the formulas in trigonometry for SMK students.

He found that the application of mnemonics strategy was effective due to the students' memory and the learning outcomes. In other words, the students could memorise the trigonometry's formula well and easily, so that it gave a good impact for the teaching learning process as well as the learning outcomes. It was
believed that the mnemonics strategy help the students improve their understanding so that their score will increase too.

### 2.4.2 MnemonicsStrategy in Social Science (IPS)

Reni Herawati and friends (2017) analized the using of mnemonics in social science. They did a collaborative classroom action research on the effectiveness of using mnemonics for the fifth grade students of elementary school. The result of the research show that mnemonic technique can improve the students learning outcomes. The average value of the students in social science before the using mnemonics is 60.25 whereas the average get 70.75 in the first cycle and 79.75 in the second cycle. Based on the data, they concluded that there was a good increase after the application of mnemonics technique.

### 2.4.3 Mnemonics Strategy in Arabic Language

In learning Arabic language, students could apply a mnemonics strategy to enhance their memory. In Islamic Boarding School (Pondok Pesantren) there are many uses of mnemonics strategy applied by the teacher in teaching Nahwu, Shorof, Tarikh and Tajwid. Since there are so many thing that the students should memorise, the teacher must find the best strategy to assist the students in recalling the material given by the teacher. In fact, the students could memorise the lesson in a better way.

There are some complicated patterns in Arabic language, especially the changes of parts of speech. For example, when the students ad to memorize the
word's cange on : Dhoroba - Yadhribu - Dhorban - Wamadroban - Fahuwa Dhoribun - Wamadhrubun - Fahuwa Doribun. It was not easy to do that, so the students needed a strategy to reach the goal. Mnemonics is the suitable method in this case. Rhyming would be the best mnemonics strategy deals with the topic.

In memorizing some Do'a or the prayer in Arabic the students needed to do some repetition, but they needed some effective and easier way to do so.

### 2.5. Key terms

- Mnemonics : any learning technique which aid information retention in the human memory
- Vocabulary : the knowledge of words and the word meanings
- Dramatization : an effort to make something seem more exciting or surprising than it really is
- Teaching Technique : the way of transferring knowledge or skill


## CHAPTER III

## RESEARCH METHOD

### 3.1. Research Design

To collect the data, the writer applies observation, interview, and library research. The populations of this study are some English utterances cognates in Indonesian and or Javanese.

The writer ranges the informants based on criteria:

- The respondents are students of EFL (English as a Foreign Language).
- They are able to speak in Indonesian and Javanese well.
- They are educated at junior high school.
- They are healthy or not defective in speech production.


### 3.2. Respondents

The respondents of this research are the students of the third gradeof SMP Al Irsyad Pekalongan. The students have some different background of education. They graduated from Elementary School and also from Madrasah Ibtidaiyah. The differences of the curriculum's basic competence make them in the various English proficiency level and vocabulary mastery. All respondents can speak Indonesian and Javanese since almost all the words will be dramatized based on the mnemonics rule either in Indonesian or Javanese.

### 3.3. Data

The data of this research are the English vocabularies mostly used in the daily conversation. Not all of the English vocabularies will be used in this technique, only the words found in the student book which have some aspects can be related to Indonesian or Javanese whether in the sound, pronunciation, the similarities, and the spelling. It will be something fun as all respondents have the same background knowledge or what so called schemata. So, without any further explanation, they will get the point in easy way and full of laughter. The writer believes it will make them easier to understand and remember the meaning of the words being dramatized based on the mnemonics rule than the words have to be memorized in a conventional way.

### 3.4. Data Collection

As it is stated in the objectives of the study, this research aims to the use of mnemonics technique in optimizing teaching vocabulary.It is necessary to collect the data which is suitable for the students' needs. Some English words or phrases taken from the students' book, and theyhave been prepared to be dramatized according to the mnemonics categories.

### 3.5. Data Analysis

The analysis will begin with having a light conversation with the students as an opening. Asking some words meaning will be the focus to lead them going further on the vocabulary mastery. Pretest will be given to make sure whether the respondents exactly know the meaning of the words or not. After that, the
treatment begins with the mnemonics dramatization on the words prepared. The post test will be given after the treatment given to all respondents to measure the respondents' understanding.

### 3.6 Data Collecting Techniques

Data collection is a term to describe a process of preparing and collecting data. The purpose of data collection is to obtain information to keep on record, to make decisions about important issues, to pass information on to others. Primarily, data is collected to provide information regarding a specific topic.

The techniques used to collect data in this research employ two techniques, they are qualitative and quantitative techniques. The techniques are as follows:

### 3.6.1. Qualitative Data

Nunan (1992) stated that qualitative-phenomenological hypothesis is the belief that there is no objective reality that is separate from the observer. More over, qualitative data collection requires researchers to interpret the information gathered, most often without the benefit of statistics support. If the researcher is well trained in interpreting respondents' comments and activities, this form of research can offer very good information. Qualitative data collection options include personal interviews, focus group and observational research. While in this research, the writer uses class observation, questionnaires and interview.

## a. Observation

Classroom observation is exactly credible as a research tool. When observing during the class, the researcher has time to analyze the class activities, the interaction between the teacher and the students, the students' motivation to improve their knowledge.

The observation was documented in the form of notes and portfolio. The researcher wrote down what was happening and stated his personal opinion about the activity during the class.

## b. Questionnaires

As a finding of qualitative techniques, questionnaires are to figure out that the students' competence get improved using the mnemonics teaching strategy.The questionnaires were given to the students in the beginning of the research to find out about some deep information, especially on the students' vocabulary mastery.

### 3.6.2. Quantitative Data

The quantitative datawere taken from the result of vocabulary test. As it was stated before, the vocabulary test consisted of 30 words on list. They were all taken from the books used by the teacher as learning sources for the students. The vocabulary test was relevant with the topic being discussed here, that was the application of mnemoninics technique in learning vocabulary. The vocabulary test carried out in two different times. Pretest was given in the beginning of the session, while post test was given in the end of the session. Then the researcher analized the result of the pretest and the post test either in Control Group or in

Mnemonics group. More over, the quantitative data would give a brief description on the student's vocabulary mastery to support the qualitative data as well. The combination between qualitative and quantitative data would picture and reflect the finding then it may comes the solution to the problems.

## CHAPTER IV

## RESULTS AND DISCUSSION

Most of the students in Pekalongan have learned English as one of local content subjects since they were in elementary school. However, it is different with the curriculum for high school, English is a main subject taught in the class and it will be evaluated in the national examination.

As one of public high schools, SMP Al-Irsyad Pekalongan also has English lesson in their curriculum. It is an Islamic public high school located in Pekalongan City. Mostly, the language instruction in the English class has not been done in bilingual yet. Mostly the teachers teach the students in Indonesian language. The majority of the students here live in subdistrict. Since most of their parents are laborer, they do not have English background in their family. All of them speak Javanese and Indonesian language in their daily conversation either in the school or in the family. The school uses a School-Based Curriculum. It is developed by the school through the teachers' group work meeting that is based on the school surroundings.

Most students find it difficult in memorizing the English words as they never use them in daily conversation. Moreover, they find it difficult to recall the long list of words the teacher gave at school. The researcher also found that most of the students said that vocabulary is the greatest obstacle in learning English since they don't know the meaning, the detail information and how they should use it in daily conversation. Most teacher teach the vocabulary as they were
taught. In other words, the conventional method was still being applied in the teaching and learning process. Teacher should find the best solution for this problem such as applying the suitable teaching technique in delivering the material. Therefore, mnemonics can be the suitable strategy to be applied in this situation as it will make it easier to be remembered and the information will be stored in long term memory. As it was stated by Sarcoban and Basibek (2012) that menemonic methods specifically promotes vocabulary retention of the elementary level of English as Foreign Language. Thus, they concluded that mnemonic techniques are suitable for leading the memory to longer term retention of the vocabulary items of elementary and true beginner language learners.

The introduction of mnemonic techniques to the students made them realize that it can strengthen their memory. The students considered to have a strong memory when they could store and transfer information from Short Term Memory into Long Term Memory.

AccordingtoHarmer (2004),young children especiallythoseup to theages of thirteenorfourteen,learndifferentlyfromolderchildren,adolescentandadults. InteachingEnglishtochildren,ateacherplaysanimportantrolebecausehehas togivethevery basicintroductionofthefirstforeignlanguage acquisition.Inordertomake Englishteaching be successful,we have toconsider some factorssuchasthe qualityof teacher, students' interest and motivation, the books used and the others. All ofthem wereinvolved in ateachingand learningprocess.

### 4.1 Data Description

The data in this research was taken from Diary Notes, Interview, Observation sheet and Vocabulary test. In collecting the data, the researcher did the observation in the classroom by interviewing and observing the teacher and the students. Then, the researcher discussed with the teacher about what activities they would do.

The main focus of this research was a set of actions which were done in two cycles. Every cycle had four phases namely planning, acting, observing, and reflecting. The research was done in two different classes; all are in the third grade or grade IX which consist of 33 students in two different classes. They were never absent during the researcher conducting the research from the first meeting until the last meeting.

### 4.2 Preliminary Study

The researcher analyzed the data from two kinds of data, they were qualitative and quantitative data. The quantitative data were taken from the vocabulary test score, while the qualitative data involved observation sheet, interview, diary notes and photographs.

### 4.2.1 The Quantitative Data

The quantitative data were taken from the result of vocabulary test that consisted of 30 vocabulary list of words. The test was still relevant with the topic which was been discussed of each cycle in the classroom. The vocabulary test was

Carried out in two different times. The vocabulary test was given to the students at the beginning (Pretest) and in the end of the session (Post Test). The Pretest was prepared in the beginning of the session. The tests aim to get a map or the brief description of the student's vocabulary mastery. It is very important for the researcher to breakdown and then consider the mnemonics could be applied.

Here are the tables of the students' score either from the Control Group or the Rote Group.

Table 1. The Students' Scores of Control Group

|  |  |  |
| :---: | :---: | :---: |
| Student | Score of Pre Test | Score of Post Test |
|  |  |  |
| 1 | 72 | 76 |
| 2 | 76 | 80 |
| 3 | 72 | 80 |
| 4 | 64 | 68 |
| 5 | 68 | 72 |
| 6 | 72 | 76 |
| 7 | 68 | 88 |
| 8 | 72 | 68 |
| 9 | 80 | 76 |
| 10 | 68 | 72 |
| 11 | 68 | 72 |
| 12 | 60 | 76 |
| 13 | 68 | 64 |
| 14 |  | 76 |
| 15 | 69,75 | 76 |
| 16 |  |  |
|  |  |  |
| $M e a n$ |  |  |

From the tables above we can observe that the students' scores in Control Group showed a slight increase from the scores of Pretest and the Post test.

And here are the table of the students of Mnemonics Group.
Table 2. The Students' Scores of Mnemonics Group

|  |  |  |
| :---: | :---: | :---: |
| Student | Score of Pre Test | Score of Post Test |
|  |  |  |
| 1 | 76 | 84 |
| 2 | 64 | 72 |
| 3 | 72 | 80 |
| 4 | 64 | 76 |
| 5 | 68 | 80 |
| 6 | 76 | 84 |
| 7 | 80 | 88 |
| 8 | 72 | 84 |
| 9 | 72 | 84 |
| 10 | 72 | 88 |
| 11 | 84 | 80 |
| 12 | 64 | 96 |
| 13 | 60 | 76 |
| 14 | 60 | 80 |
| 15 | 72 | 88 |
| 16 |  | 80 |
| 17 |  | 89 |
|  |  | 80 |
| $M e a n$ |  |  |

Theresultof students'scorecould also beseen in Appendix.

### 4.1.2 The Qualitative Data

### 4.1.2.1 Diary Notes

Diary notes were written up by the researcher in every meeting during conducting the research. From the diary notes, it was great when the researcher finally found that the students were active and enthusiastic during the teaching learning process. Even
though some of the students were lazy to learn vocabulary in the beginning, but when teacher apply the concept of mnemonics, they felt interested and enjoyable in studying vocabulary. So, in this research, students showed the improvement in learning vocabulary through the application of mnemonics teaching technique. The complete information about the diary notescould also be found in Appendix.

### 4.1.2.2Observation

In every meeting, the researcher filled in the observation sheet. The result at the end of the first cycle were : (a) while the teacher was explaining, many students did not pay attention to him since he did not give any motivation to the students to show their best in learning vocabulary, (b) many students were still confused of how to apply mnemonics because itis the first time for them to deal with mnemonics and the teacher did not explain it so the students could not work in group well, (c) teacher did not give instruction clearly about what would be done by the students in group so that the students were confused when doing their tasks, (d) during the learning process, some of the students were making noise as they didn't understand it well. Some of them did not sit in their group so they did not participate in group discussion. The main factors were the lack of teacher's attention and controlto all groups, (e) some students did not share in their group to perform the good team work among the members of group because they were still confused to apply the mnemonics technique, (f) the teacher should be able to manage the time effectively and efficiently, sothe students might have enough chance to ask the material that they did not understand.

But in cycle II, the researcher found that the teaching learning process could run well and condusive. The situation of the class during teaching and learning process was
really fun and enjoyable. In this cycle, the teacher gave more attention to every group and moved around the group while giving instruction and helped them to work in their group. During the teaching and learning process, the students participated and gave good response. They were getting more active in asking about lesson and got involved in the learning process. They were so excited with the new topic even though sometimes they were noisy and chat with their friends. The complete information about the observation sheet could also be found in Appendix.

### 4.1.2.3Interview

The interview was done before conducting the first cycle. The researcher interviewed the teacher and students. The interview was also done after implemented the mnemonics technique to the English teacher and some of the students. From the students and teacher's answer in interview, the researcher underlined that the teacher found the learning process was becoming more active and interesting. But more over, the students' ability were increasing too. From the students' point of view, the researcher pointed that the students felt fun and enjoyablein learning vocabulary through mnemonics concept. They felt much easier in memorizing the vocabulary they have learned. The transcription of interview could be seen in Appendix.

### 4.1.2.4Photographs

Every moment during the research was also documented in a set of photographs as they are very important for researcher to picture every moment due to the data-collecting. The photographs were taken while the teacher was teaching the students in front of the classroom, when the students did the concept of mnemonics technique, when the
students did the vocabulary pre test and post test and also their activitie during the teaching and learning process in the classroom. The photography could be seen in Appendix X.

### 4.2 The First Cycle

The first cycle was done in three meeting, the detail was below :

### 4.2.1 Planning

The plan was arranged before researcher conducting the research. First of all, researcher prepared or made a lesson plan for 3 meetings. The researcher would take two different classes. One class that consisted of 17 students will be the Control Group, while another class that consisted of 16 students will be the Rote Group. In planning the action research, the researcher had prepared the following :

1. Vocabulary Pre Test
2. Questionnaire
3. Doing brainstorming
4. Explaining the material
5. Doing some Exercise

The researcher had prepared all the material above to conduct the research and the activities of the students in the classroom.

### 4.2.2 Action

In the first cycle, the researcher and the teacher divided respondents into two different groups, they were Control group consisted of 17 students while the Rote group consisted of 16 students. The total number of students in the third grade were 33
students. Thenthe teacher divided each class into four groups. So, there were four students in every group of discussion in the classroom.

After dividingthe students into some groups, the researcher introduced the topic discussion and also handed out the pre test for every student. Then the teacher did the warming up about the topic which was being discussed. The warming up which was done by teacher was the simple question about some vocabulary.

After warming up, teacher continued the session and asked them to read the vocabulary lists. Some students should read the questions in pre test carefully before doing the test. After finished reading the instruction, the teacher asked the students to do the test individually and also asked the students to answer the questions correctly. The answer of the test then also discussed together with the students in the classroom both for Control group and Rote group.

### 4.2.3 The Vocabulary Test

The instrument of the Vocabulary test for Pretest and Post test consists of 30 words on a list. The words were taken from the books used by the teacher to teach the material to the students of the third grade of SMP A1 Irsyad Kota Pekalongan. Here is the words' list as the instrument of the test:

## VOCABULARY TEST

1. Rather : .......................
2. Smog : $\qquad$
3. Sorrow : $\qquad$
4. Bicycle $\qquad$
5. Sweat $\qquad$
6. Then $\qquad$
7. Think $\qquad$
8. The last $\qquad$

10.North : .......................
11.Deny :
$\qquad$
12.Accept $\qquad$
13.As you wish: $\qquad$
14.Fan $\qquad$
15.East
: . $\qquad$
9. Honest $\qquad$
17.Far $\qquad$
18.Cruel $\qquad$
19.Boring $\qquad$
20.Fun

21.Small

22.Medium $\qquad$
23.Large $\qquad$
24.Cold $\qquad$
25.Cool $\qquad$
26.Enough $\qquad$
27.South $\qquad$

| 28.Scream | $:$.......................... |
| :--- | :--- |
| 29.Soldier | $:$............................ |
| 30.Elbow | : ............................ |

The students supposed to read the words' list carefully before doing the test. Then they had to write the meaning of each word. The words' list were from different parts of speech. Most of them were adjective, while the other words were adverb, verb and noun. This various words' list would enrich the students' vocabulary knowledge as well.

### 4.2.4 Pre Test

According to Merriem Webster Dictionary (1989), pretest is a test to evaluate the preparedness of students for further studies. Pretest was given to all students before the session began, before applying any treatment, in order to get the students' brief description about their understanding and vocabulary mastery. It is very essential for the researcher to know the students capabilities on vocabulary, so that the researcher could manage what actions should be applied to the students.

Here are the result of the Pre Test from Control Group.
Table 3. Control Group's Pretest Score

|  |  |
| :---: | :---: |
| Student | Score of Pre Test |
|  |  |
| 1 | 72 |
| 2 | 76 |
| 3 | 72 |


| 4 | 64 |
| :---: | :---: |
| 5 | 68 |
| 6 | 72 |
| 7 | 80 |
| 8 | 68 |
| 9 | 72 |
| 10 | 68 |
| 11 | 80 |
| 12 | 68 |
| 13 | 68 |
| 14 | 60 |
| 15 | 60 |
| 16 | 68 |
|  |  |
| Mean | 69,75 |

From the table above we could see that the average score of the students' Pretest in Control group was 69,75 . In other word, it was not satisfied enough as it was below the students' completion minimum score in the school which should reach minimum 70. Although there are two students who got the highest score; 80 for the test, two students got the lowest score; 60 , but the mean of the whole class is 69,75 .

Here is the table of the Mnemonics Group's Pretest.
Table 4. The Mnemonics Group's Pretest Score

|  |  |
| :---: | :---: |
| Student | Score of Pre Test |
|  |  |
| 1 | 76 |
| 2 | 64 |
| 3 | 72 |
| 4 | 64 |
| 5 | 68 |
| 6 | 76 |
| 7 | 80 |
| 8 | 72 |
| 9 | 72 |


| 10 | 80 |
| :---: | :---: |
| 11 | 72 |
| 12 | 84 |
| 13 | 64 |
| 14 | 60 |
| 15 | 60 |
| 16 | 72 |
| 17 | 64 |
|  | 70,59 |

Based on the table above, it could be observed that the mnemonics group's pretest score was quite different from the previous group. Mnemonics group score was a little bit better than Control group's score.

Then the researcher delivered the questionnaires among the students. As it was stated before, the questionnaires aimed at figuring out some aspects due to the student's vocabulary mastery. The questionnaires consisted of some questions that should be answered by the students related to some aspects in learning English vocabulary. The result of the questionnaires from both groups were presented in the table. There are about four different ideas on the questions stated in the questionnaires. They are focusing at the number of the students who have problems in memorizing English words, whether the students know about mnemonics teaching technique, about guessing the meaning of the words when the students found difficult words and using dictionary in finding the meaning of the words.

In the next step, the teacher asked the students in Rote group to memorize the words they have learned through repetition. It was such a traditional way in teaching vocabulary that was still applied in many places. The students had to read the words again and again so that they will remember the meaning of the vocabulary. Sometimes
they needed more time or extra time to do that. Some students even needed a really specific and quiet place to do memorizing.

The teacher explained the vocabulary through the concept of mnemonics to Control group.The teacher gave instruction to the students about how to apply a mnemonics way. The students got explanation about To apply the mnemonics technique, the teacher gave some examples beforeletting the students explore their ideas in a time of approximately 20 minutes. The students tried to apply the mnemonics technique based on what they have got. Before the teacher gave them a drill, teacher reviewed the topic of study which had been discussed in the classroom in order to make easier to answer the test.

### 4.2.5 Observation

The observation was aimedto know more about the students' behavior and the students' problems during the teaching and learning process. Most of the students had participated effectively during the teaching and learning process and also when they did the mnemonics concept in their group although some of them still lack of vocabulary. They were quite enthusiastic and enjoyable about applying mnemonics which discussed by the teacher in classroom. They were also seriously finding the most suitable and easiest way in applying the mnemonics in their group.

The activity the of students could be seen in Diary Notes and also Photographs taken by the researcher during the teaching and learning process in the classroom. The researcher could see the students enjoy the class as well as felt happy and enthusiastic than before.

### 4.2.6 Reflection

Based on the result of the score of the test in cycle I and also from observation, action of improvement was needed. Actually, students' score in test of cycle I was not really satisfied especially the score of Pre-Test. Therefore, it needed more improvement in their vocabulary mastery because some of them still confused and difficult to understand some English vocabulary since they don't know the meaninng well. Teacher needed to motivate the students more in order to trigger the better performance among the students.

In the second cycle, the researcher and the teacher tried to improve their vocabulary with new vocabulary teaching method whichwere related to the topic being discussed as well as doing the personal approach. The researcher hoped the students would be more active and feel comfortable in learning the vocabulary.

### 4.3 The Second Cycle

After finished doing the first cycle, the researcher found the students' problems as it gave more information about the students' vocabulary mastery. Therefore, it was quite challenging for the researcher as well as having a good motivation to conduct the second cycle of action research which was carried out in three meetings. The researcher expected that the second cycle of action research would get better than the first cycle. In this cycle, researcher gave them more motivation and also more explanation about increasing the vocabulary mastery through mnemonics teaching technique. The second cycle of Action Research as follow :

### 4.3.1 Planning

In this session, the researcher prepared some steps to emphasize on application of mnemonics techniqueduring the teaching and learning process in improving students' vocabulary mastery. The researcher explained more about the types of mnemonics. They were about usingAcrostics, Acronyms, Loci, Keyword Method, Pegword Method and Reconstructive Elaboration. Here, researcher made more exploration on English vocabulary through the type of mnemonics. It was all about maximizing the effective method to enhance the students' memory to the vocabulary list they had learned, to improve their English vocabulary using a shortcut or the easisest way. The teaching and learning process is almost the same as the process in cycle I.

1. Warming up and Reviewing the Lesson
2. Giving Exercise
3. More Discussion
4. Vocabulary test (Post test)
5. Making Conclusion and Enhancement

All of the materials above used by researcher to conductthe activities for the students in the classroom.

### 4.3.2 Action

Before conducting this cycle, the researcher and the teacher tried to review all activities and the happening during the research. Then we discussed and thought about the advantages or the progress as well as the students' reaction, problem and weaknesses.The researcher then suggested the teacher to give the students more spaces to create their own mnemonics based on the material had been given before. The
teacher also provided an exercise to warm up the students' spirit and motivation. Before the teacher conducting the discussion, it would be better for teacher to do the warming up for the students. The simple questions from the teacher to recall the students memory to the vocabulary lists they had learned was very important part in the teaching and learning process. The warming up session would lead and trigger the students to be more active and got involved in teaching and learning process. The researcher also suggested to the teacher to give some more spaces for students to actualize and demonstrate their ability. Sometimes the potential of the students was hidden if they never got an opportunity to actualize and express it. So, it was very important for the teacher to give more space and attention to the students development by giving them more opportunities.

After warming up, the teacher continued to give some instruction to the students before they did the exercise. All student should try to apply the mnemonics concept . They managed to have a great discussion in finding the easiest way in memorizing the vocabulary list. Some of the students found the simple way in quite short time. But some of them also needed more time to make it.After finished doing their exercise, the teacher asked the students to come in front of the class to demonstrate their work. It was found from the students' work, although in the beginning of the time some of their work weren't easy enough to understand, but it was coming to be clear after they explained one by one. They were really fun and enjoyable answering of the exercise also discussed together with the student in the classroom. More over, it was a great achievement for them to create their own mnemonics, the easiest way for them to
memorize something, in this case the vocabulary lists. Here are some of the mnemonics created by the students:

1. The first of students' work : students created an easy and funny way to recall for one of part of the body. It was 'Elbow'. They tried to associate the first syllable of 'Elbow' was 'El'. And it was such an alphabet L. Moreover, when someone wanted to show his elbow, he unintentionally form his hand L shape. This way will make someone easier to remember the words Elbow.
2. The second of students' work : another group created how to memorise the word 'Sweat'. Some students don't really know the meaning of 'Sweat'. Moreover there are a big mistake among most of the students in pronouncing Sweater with Sweeter. Therefore, they tried to make a fun way how to differentiate Sweat and Sweet. The students made a link between Sweat and Pocari Sweat. In fact, the students find it easier to recall it by this method and they are sure that they won't make a mistake again.
3. The third of students' work : some students in this group introduced the simple way in recalling the words 'Empty' and 'Full'. As information, both words are always exist in motorcycle as indicator of the fuel tank. The students made a funny way by transforming the word 'Empty' into a Javanese word 'Entek'. While the word 'Full' connected with the Indonesian word 'Fenuh'. Moreover, both words have the same meaning. Although there is a kind of dramatization in the word 'Fenuh', as it should be 'Penuh' instead of 'Fenuh'. But mostly the students found it so funny and easy, therefore they really enjoyed the learning process as well.

### 4.3.3 Post test

According to Merriam Webster Dictionary (1989), post test is a test given to students after completion of an instructional program or segment and often used in conjunction with a pretest to measure their achievement and the effectiveness of the program. Post test was given to the students in the last session. The teacher handed out the Vocabulary Post Test then distributed to them . The students needed to answer all questions well. The researcher were eager to find out and measure whether the students' vocabulary mastery would be much better after applying the mnemonics concept that was believed to be the most suitable and easiest way to recall the vocabulary list they have learned. The result of the Post test will be one of the important data as it would give supporting fact whether the application of mnemonics teaching technique would increase the students' vocabulary mastery. The score of the post test presented in table.

Table5. The Post Test Scores of Control Group

| Student | Score of Post Test |
| :---: | :---: |
|  |  |
| 1 | 76 |
| 2 | 80 |
| 3 | 80 |
| 4 | 68 |
| 5 | 72 |
| 6 | 76 |
| 7 | 88 |
| 8 | 68 |
| 9 | 76 |
| 10 | 72 |
| 11 | 88 |
| 12 | 72 |
| 13 | 76 |


| 14 | 64 |
| :---: | :---: |
| 15 | 68 |
| 16 | 76 |
|  |  |
| Mean | 75 |

It could be observed from the table above, the Post Test score from the Control group was slightly better after giving more treatment by repetition method or conventional method

Table 6. The Post Test Scores of Mnemonics Group

|  |  |
| :---: | :---: |
| Student | Score of Post Test |
|  |  |
| 1 | 84 |
| 2 | 72 |
| 3 | 80 |
| 4 | 76 |
| 5 | 80 |
| 6 | 84 |
| 7 | 88 |
| 8 | 84 |
| 9 | 88 |
| 10 | 80 |
| 11 | 96 |
| 12 | 76 |
| 13 | 76 |
| 14 | 80 |
| 15 | 88 |
| 16 | 80 |
| 17 | 82,12 |
|  |  |
| $M e a n$ | 84 |

There was a significant increase in The Post Test Score of Mnemonics Group. It means that mnemonics strategy gave a good impact on the students Vocabulary mastery.

Before teacher gave them a test in cycle I, teacher reviewed the topic of study which had been discussed in the classroom in order to make them easier to make them easier to answer the test.

### 4.3.4 Observation

The observation was one of the most important parts in this research. The focus was all activity of the students during the class. It was found that most of the students did not have problems anymore about vocabulary learning through the application of mnemonics technique. They really liked the methodand felt that it was the suitable method in retaining the lesson they had learned before which was given by the teacher. They were getting active during the teaching learning process and feeling more fun and enthusiastic than before.

### 4.3.5 Reflection

Having checked the student's vocabulary post test that consisted of 30 vocabulary lists ; it was found that the students' score were getting much better. So,it showed a good progress after introduced and applied the mnemonics technique as they improved their abilities as well . Most of the students agreed that they like the mnemonics atrategy more than the normal or conventional strategy. This condition is also supported by Chan (2000) who said that the autonomy of employing either imagery or or the sentence could be enjoyed by the students, which ever snaps into the mind and appears
to be the most regular way of creating associations. Atkinson and his colleagues (1975) explained that mnemonics strategy was superior for vocabulary learning to other traditional method. Just like in another study done by Anjoumafrouzi and Tajalli (2002) also agreed that the studens got a better performance by applying mnemonic strategy. They got the data after comparing the Control group with Rote group.

Therefore, based on the observation and the result of the students' test, the researcher could conclude that the students had a better mastery on vocabulary through the application of mnemonics technique. The students' score in the post test had improved than in the pre test.

### 4.3.6 Questionnaires

Here are the results of the questionnaires that the students filled. Every table reflects different idea on what the writer wants to know about. The results can be seen as follows:

Table 7. 1. Students who have Problems in Memorizing English Words

|  | Frequenc | Percent Cumulativepercen |  |
| :--- | :---: | :---: | :---: |
| Valid | Stronglydisagree | 2 | 6.1 |
|  | 6 | 18.2 | 24.2 |
| Disagree | 18 | 54.5 | 78.8 |
| Neither agree nor disagre | 6 | 18.2 | 97.0 |
| Agree | 1 | 3.0 | 100.0 |
| Strongly agree | 33 | 100.0 |  |
| Total |  |  |  |

Table 1 shows the percentage of the respondents' answers whether they have problems in memorizing English words. According to the data analyzed, about $18.2 \%$ of the respondents disagree that they have problems in memorizing English words, and even $6.1 \%$ of them strongly disagree with this matter. Besides that there are $18.2 \%$ of the respondents agree and $3 \%$ of the respondents strongly agree that they have some problems in memorizing English words. However, the majority of the students with the amount of $54.5 \%$ neither agree nor disagree that they have some problems in memorizing the English words. This shows that the majorities of the students neither agree nor disagree on having some problems in memorizing English words.

Table 7. 2. Students know what Mnemonic is and know what the function is

|  |  | Frequency | Percentage | Cumulative percent |
| :--- | :--- | :---: | :---: | :---: |
| Valid | Disagree | 4 | 12.1 | 12.1 |
|  | Neither agree nor | 6 | 18.2 | 30.3 |
|  | Agree | 12 | 36.4 | 66.7 |
|  | Strongly agree | 11 | 33.3 | 100.0 |
|  | Total | 33 | 100.0 |  |

In Table 2 it can be analyzed that mostly students know what mnemonic is and its function. There are $36.4 \%$ of the respondents agree that they know about mnemonic and the function and $33.3 \%$ of them strongly agree about the statement. Whereas, there are $12.1 \%$ of the respondents disagree that they know about mnemonic and its function. And the respondents who neither agree nor disagree are $18.2 \%$. In addition, the students sometimes don't know significantly about the term "mnemonics", but they know about how the method work as the method is
usually used by their teachers.

Table 7. 3. When Having Difficulties in English for the First Time Students Guess the Word

|  |  | Frequenc | Percent | Cumulativeperce |
| :--- | :--- | :---: | :---: | :---: |
| Valid | Stronglydisagree | 3 | 9.1 | 9.1 |
|  | Disagree | 5 | 15.2 | 24.2 |
|  | Neither agree | 12 | 36.4 | 60.6 |
| Agree | 9 | 27.3 | 87.9 |  |
|  | Strongly agree | 4 | 12.1 | 100.0 |
| Total 33100.0 |  |  |  |  |

The data found in table 3 is to identify whether the respondents guess the word whenever they find new or difficult words in English for the first time. The highest percentage is $36.4 \%$ which most of respondents neither agree nor disagree with the statement. However, there are $27.3 \%$ of the respondents choose to agree with guessing the words whenever they find new or difficult English words for the first time, and $12.1 \%$ of the respondents even strongly agree about this. There are $15.2 \%$ of the respondents choose to disagree, and another $9.1 \%$ choose strongly disagree in guessing the word whenever they find new or difficult English words for the first time. Clearly, finding new or difficult English words for the first time, most of the respondents do guess the meaning of the word.

Table 7. 4. When Having Difficulties in English Words for the First Time Students Use Dictionary to Find the Meaning

|  |  | Frequency | Percent | Cumulativepercent |
| :--- | :--- | :---: | :---: | :---: |
| Valid | Disagree | 1 | 3.0 | 3.0 |
|  | Neither agree nor dis | 21 | 63.6 | 66.7 |
|  | Agree | 4 | 12.1 | 78.8 |

Table 4 shows that the percentage of the respondents' answers when they have difficulties in English words for the first time they use dictionaries to find the meaning. According to the data analyzed, only $3.0 \%$ of the respondents disagree that they use dictionaries when they have difficulties on the meaning of English words. Besides that there are $12.1 \%$ of the respondents agree and $21.2 \%$ of the respondents strongly agree that when they have difficulties in English words for the first time they use dictionaries to find the meaning. However, the majority of the students with the amount of $63.6 \%$ neither agree nor disagree that they use dictionary when having some problems of the English words meaning.

### 4.4Mnemonics Application in Teaching Vocabulary

In applying mnemonics technique, firstly we should select the words. Then we need to decide what mnemonics strategy would be best in the mnemonics technique. Here are some words taken from the books used by the teacher in the classroom as the main resources for the students.The researcher selected to teach the words that could be applied by the mnemonics technique as not all words could be suit to the mnemonics technique. These words are classified based on the frequent used and quite hard for the students to know the right spelling and fit to the mnemonics.

## 1. The words "Then and Than"

The students often feel confused with these two words since they are almost the same in pronunciation and in spelling. As a result, they oftenly misused these two words though the teacher has already explained the meaning and used them in some of the sentences as examples.

Here are some mistakes done by the students :

- The students walk to the field and than stand in line.
- This book is more expensive then that book.

The first sentence should use 'then' instead of 'than'. The sentence will be 'The students walk to the field and then stand in line'. While the second sentence should use 'than' instead of 'then'. These mistakes oftenly happened among the students especially when the students have to answer the questions in written.

## 2. The words "Think and Thing"

Oftenly, students find difficulties in differentiate between 'think' and 'thing'. To recall these words, students found it a little bit difficult as they have almost the same spellings and sounds. The students often miss-used the two words in the sentences. The teacher should create the easiest way to avoid it.

For example: "I think we should prepare everything in advance before we go to the next step." Then another sentence " I like anything about K-Pop."

We can enhance that Think means "Berpikir" in Indonesian and there is "K"
in that word, while Thing which means "Barang" in Indonesian there is " $G$ " in that word. We can make it simple in this sentence : "I think I need something to drink." By using the simple understanding about the clues, we can avoid in making any mistakes.

## 3. The phrase "The Last"

To teach the words 'The last'in order to make the students could recall it easily, we should relate it with theword "Telas". This Javanese word sounds similar and moreover, it has the same meaning with "the last". Telas is a Javanese word means end up or the final rest. Since both of them have the same characteristics, students would easily recall the words.

## 4. The directions "North, South and East"

Students sometimes find it difficult in naming the directions in English. The easiestway to recall the directions is by associating the English words into the Indonesian or Javanese language that they use every day. North will be connected to the word "Ngalor". Ngalor is the Javanese word for North. Moreover, they started with the same letter, "N". South will be recalled with the word "Selatan". Selatan is the Indonesian word for South, both of them have the same initial too. So, the students just needed to remember their initial to recall the words North and South. While for the word East can be connected with the Javanese word "Etan" which has the same meaning as well. They also start with the same letter. For the word West is more familiar as there is a famous band name West Life and most of
them know about them.

## 5. The word "Sorrow"

"The King felt in sorrow when he knew that her daughter was very ill." The sentence was taken from a fairy tale found in the book used by the teacher. The teacher could apply mnemonics strategy in teaching the meaning the word "sorrow"

Sorrow means a deep sad feeling or miserable condition. It could be retained easily with the word "Sengsoro", a Javanese word means the same as 'Sorrow'. Both words also sound almost the sametherefore it makes them easier to remember.

## 6. The word "Bicycle"

Bicycle is the most popular and the cheapest transportation among the people. Therefore we can find it easily all around the world. They name it differently in different area. To recall the word 'Bicycle', we can use the combination from two words, 'by Sikil'. Sikil is a Javanese word means Foot. We should use our feet to make the bicycle move forward. It was just like telling the way how we could move a bike. Moreover, those two words sounded similar.

The teacher could ask the students about "how do you move it?". The students would answer "By sikil" that sounds almost thesame with "bycicle". This method had a tendency to make a fun and easy way to recall the word being learned.

## 7. The word "Rather"

The easiest way to recall the word "Rather" we should associate it with the Javanese word which sounds almost the same and has the same meaning with the word 'rather' that is "Rodho".

For example, there is a man who give comment on the weather. He said, "It's rather hot here." It could be recalled by the sentence in local language "disini rodho panas cuacanya." So, in this case the students would easily remember the meaning of the word "rather" and could apply it in the sentence correctly, without worrying to make a mistake as the students were really familiar with the word 'rodho'.

## 8. Rhymes

We can use rhymes to teach some vocabularies. In Kindergarten or even Playgroup, teachers introduce the English alphabet by singing it in 'Twinkletwinkle little star's rhyme. They also introduce the name of our fingers in English using 'Where is Old Man' rhyme. They sometimes teach the students to sing the 'Lihat Kebunku" song in English version. The lyrics of Lihat Kebunku song are as follow:

The first verse:
IND : Lihat kebunku, penuh dengan bunga.
ENG: Look at my garden, there are some flowers.
The second verse:
IND : Ada yang putih, dan ada yang merah

ENG : There is a white one, There is the red one
The third verse:
IND : Setiap hari, kusiram semua
ENG : Almost everyday, I water them all
The last verse :
IND : Mawar melati, semuanya indah
ENG : The rose and jasmine, all flowers are beautiful.
Using rhyme seemed to be the most effective way in teaching some material for the students, especially for young age learners since it is the easiest and fun way in learning for them.

Another song that is usually used by the teacher in the classroom is 'Sayang Semuanya.' Almost every kindergarten or even the early grade of elementary school sing that song while learning English.

IND : satu satu aku sayang ibu
ENG : one and one I love my mother
IND : dua dua juga sayang papa
END : two and two I love my father too
IND : tiga tiga sayang adik kakak
ENG : three and three I love brother sister
IND : satu dua tiga sayang semuanya
ENG : one two and three I love everybody
Through that song, the teacher tried to introduce the students some vocabularies especially the numbers and family members. It is such a very simple way in
recalling some vocabularies for anyone especiallyfor the beginner level of English as Foreign Language learners

## 9. Wish Me Luck

'Wish me luck' is a common expression used by someone who asked for a good prayer from someone else in order to get a smoothness to everything they would do. To make the students more familiar with this expression, we could recall by the brand of a populair cigarette 'Wismilak'. Both phrases sounds the same too.

Based on the observation of the researcher on November 21 until 25, 2016,the researcher found some problems in the teaching and learning process in this school that affect the students' English vocabulary mastery. During the observation, the researcher found that the English teaching technique in this school was still conventional because the teacher was the one and only learning source for the students and the activities are the students only listen to the teacher's explanation while taking notes that made the students passive.

The researcher also found that the students were not interested in the materials given by the teacher and the students were not motivated during the teaching and learning process. The researcher also found that most of students could not understand the English subject even memorize the materials especially the large number of vocabulary that had been taught since the fourth grade of the elementary school.

Furthermore, theresearcher also analized that the students could not
understand the concept of making simple sentences related to the English tenses, especially when their teacher asked them to make sentences that were related to their dayly activities and hobbies in the class. Besides, the students did not do appropriate actions based on the teacher's instructions and did not respond to the teacher's instruction by answering the teacher's questions during the teaching and learning processes.

From these reasons, the researcher was interested in conducting a study to solve the problems. The researcher applied an action, in this case a teaching strategy that is appropriate to improve the students' English achievement in the teaching and learning process especially in vocabulary for the third grade students of SMP Al Irsyad Pekalongan.

### 4.2. DISCUSSION

The English teaching in the early age focuses on introducing English as the first foreign language to the students. The main objective of teaching English in the early age is the students can achieve the level of performative competence. In this level, it is hoped that the students can read,write, listen, and speak by using symbols in the English teaching and learning. Unfortunately, there are so many students think that English is a very difficult lesson to understand.

According to the result collected from the questionnaire on the section "impact of the mnemonic technique in learning English vocabulary", most of the respondents agree that they love the mnemonic techniques more compared to the normal teaching technique. This result may come based on a few reasons.

As stated by Chan (2000), it believes that the autonomy of employing either imagery or the sentence can be enjoyed by the learners, which ever snaps into the mind and appears to be the most regular way of creating the association. It means that the learner may enjoy the learning process by using the mnemonic technique.

Besides, it has been reported by a few studies that the mnemonic method is superior for vocabulary learning to other traditional methods like the context method since the introduction of the mnemonic method byAtkinson (1975) and his colleagues as an effective supplementary technique for foreign vocabulary learning (Mastropieri,1990). It can also support the study done by Anjomafrouz and Tajalli (2012) where the data shows that a better performance of adult students is created with the use of mnemonic associations compared to the external control (rote group) and internal control group (when students used no association in mnemonics group).

Mnemonics instruction with school age students is commonly implemented as an instructional strategy for teaching word recognition and vocabulary. The effectiveness of the use of these strategies is well documented. Research shows that students, including secondary and college level, remember two to three times as much as factualinformation, maintain information over delayed recall periods, and enjoy using them. Other research findings "provide evidence that instruction involving the use of mnemonic devices does enhance a student's formal reasoning skills and that this has the potential for application of knowledge to more varied tasks" (Laing, 2010, p.354). In addition, "the use of
mnemonics with college age students might have enough potential for making learning easier and possibly more fun" (Higbee, 1994, p. 11).

Researchers and teachers in the future should be aware of what mnemonic strategies they are choosing to use when teaching students a new concept. Students use background knowledge and their environment tofigure out new situations, and teachers should model and guide students who need extra support when learning new information. Researchers should focus on mnemonic techniques that work to enhance general instruction of a concept, which could possibly be carried into another content area or grade level.

The focus of mnemonic strategies is so specific that they are intended to be implemented to enhance the recall of the components of any lesson for which memory is needed. These strategies are also not comprehension strategies, but strategies to aid the recall of new information. It should be noted that students who are trained mnemonically also perform better on comprehension tests of that specific content (e.g., Mastropieri, Scruggs, \&Fulk, 1990; Scruggs, Mastropieri, McLoone, Levin\&Morrison, 1987), but that is generally because the implementation of the mnemonic strategies helps them remember more information that can be applied on comprehension tests.

### 4.2.1 Test of Normality

The researcher needs to have a test of normality in order to get more accurate research reult. The researcher then firstly tests the normality of the data to make
sure that the data taken is normally distributed. Because the number of the sample is below 50, so that the researcher uses Saphiro-Wilk test.

The Shapiro-Wilk test is a test of normality in frequentist statistics. It was published in 1965 by Samuel Sanford Shapiro and Martin Wilk. It is the test that is the most suitable with the researcher's data.

The researcher analized from the data, and it could be explained thatnullhypothesis of this test is that the population is normally distributed. Thus, on the one hand, if the $p$-value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population.

On the other hand, if the $p$-value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed population can not be rejected (e.g., for an alpha level of 0.05 , a data set with a $p$-value of 0.05 rejects the null hypothesis that the data are from a normally distributed population).

Like most statistical significance tests, if the sample size is sufficiently large this test may detect even trivial departures from the null hypothesis (i.e., although there may be some statistically significant effect, it may be too small to be of any practical significance); thus, additional investigation of the effect size is typically advisable, e.g., a Q-Q plot in this case.

Table 8. Test of Normality
Tests of Normality

| Kelompok <br>  <br>  | Shapiro-Wilk |  |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | Ptatistic | Df | Sig. |  |
| Pre | Mnemonics | .939 | 17 | .310 |
|  | Control | .923 | 16 | .186 |
| Post | Mnemonics | .946 | 17 | .402 |
|  | Control | .929 | 16 | .238 |

a. Lilliefors Significance Correction
*. This is a lower bound of the true significance.

Based on the data above can be seen the results of the normality test data pre test and post test treatment group mnemonics, as well as the pre test and post test control group. Shapiro-Wilk data normality test results revealed that the value of the pre-test of the mnemonics treatment group was 0.310 , it showed that the value of sig (p)> 0.05 meant that the data was normally distributed. Meanwhile, the results of the data normality test in the post test mnemonics group also have a normal distribution with $\operatorname{sig}(p) 0.186$.

The results of the data of normality test in the control group using ShapiroWilk with the SPSS program also known that the pre test and post test data were normally distributed. This is indicated by the pre test value reaching sig (p) 0.402 and $\operatorname{sig}(\mathrm{p}) 0.238$ for the post test. The results of the normality test of the pre-test
and post-test data of the control group is $>0.05$ so that it can be interpreted that the data are normally distributed. From that data, the researcher could continue the research as the data used are normally distributed so that the research could be classified as a valid research.

### 4.2.2 Independent T-test

Table 9. Independent Sample Test

## Independent Samples Test



The results of the statistical test of independent T-test showed a sig (p) value of 0.003 which showed the value of (p) $<0.05$ so it could be interpreted that the effect of the effectiveness of the mnemonics learning method applied to SMP AlIrsyad students in mastering vocabulary.

Finally, it should be emphasized that mnemonic strategies are the "cure all" for success in school. There are many different things that students need to do to be successful in a school environment. The ability to remember content specific information is only one part of the entire process. The good news is when there is academic content that needs to be remembered, mnemonic strategies could be an important instructional component that teachers could implement. In the reminder of this writing we will discuss the process of how to implement specific mnemonic strategies as well as some very specific examples for each.

We must consider as well tat there were many other methods or strategy in teaching or learning. But dealing with the learning vocabulary, as the main focus of this research, mnemonics come with the most effective solution since the information was easy to recall and kept in the Long term memory instead of in Short term memory.

## CHAPTER V

## CONCLUSION

The focus of mnemonic strategies is so specific that they are intended to be implemented to enhance the recall of the components of any lesson for which memory is needed. These strategies are also not comprehension strategies, but strategies to aid the recall of new information. It should be noted that students who are trained mnemonically also perform better on comprehension tests of that specific content (e.g., Mastropieri, Scruggs, \&Fulk, 1990; Scruggs, Mastropieri, McLoone, Levin\&Morrison, 1987), but that is generally because the implementation of the mnemonic strategies helps them remember more information that can be applied on comprehension tests.

According to Cynthia G.Simpson (2011), there are some mnemonics strategiesthat may be used in EFL teaching and learning especially in vocabulary mastery. They are keyword, pegword, acrostics, acronyms, association, loci and reconstructive elaborations. The keyword, pegword, and reconstructive elaboration mnemonic strategies have proven effective across many studies and have shown effective for middle school and high school age students with learning disabilities (Wolgemuth, Cobb, \&Alwell,, 2008). In addition, "Mnemonic devices, such as acrostics, acronyms, narratives, and rhymes, can assist in making abstract material and concepts more meaningful for individuals" (Laing, 2010, p.349).

Based on the observation and questionnaire given to the students, the researcher has made some conclusion about the effectiveness in applying
mnemonic technique in teaching and learning vocabulary. The first objective is identifying the impact of applying mnemonic techniques in learning English Vocabulary. There are some impact of applying mnemonics in learning English vocabulary that the rresearcher found. The students prefer the mnemonic strategy to the conventional teaching technique. The differences could be seen from the interest of the students in doing the mnemonics test. Moreover, the students can memorize more English words usingmnemonics therefore, the students got higher score in doing the vocabulary test after given the mnemonic technique and their vocabulary knowledge are getting better as well. The mnemonics technique would help them remembering the words they are learning.

Everyone may create their own mnemonics strategies and it's free to choose which strategies may suit to the objects they are trying to learn. By applying this strategies, the teacher and students are supposed to get a better way in regain the meaning of the words as it will connect to the object in an easy and fun way.

Actually, mnemonics could be applied not only in learning language, but also in many other aspects. And almost in many different aspects of our daily activities, involve mnemonics. Sometimes in memorizing the series of number such as phone number, we use mnemonics. Our mother also often uses mnemonics concept in memorizing the list of goods she needed to buy in the supermarket or traditional market. Just because mnemonics is a memory enhancer, so it will be very useful for us all. As a matter of fact, mnemonics could be applied for any different ages as long as the learners have already had the
schemata or background knowledge in order to minimize the confused.
There are still a wide space in developing the mnemonics strategy since it is no limit in creating and applying mnemonic strategy. For further research, it could be a newly and fresh idea in the mnemonics strategy application. The teacher should recognize the students condition as well as their needs. The teacher needs to give a good motivation for the students to learn in a better way. The teacher should find the best teaching strategy to reach the goal deals with the better learning outcomes.

## REFERENCES

Anjomafrouz,F. and Gaffar Tajalli (2012). Effects of Using Mnemonic Associations on Vocabulary Recall of Iranian Learners over Time. International Journal of English Linguistics; Vol. 2 No.4; 2012. Canadian Center of Science and Education.

Atkinson, R.C. (1975). Mnemotechnics in Second-Language Learning. American Psychologist, 30, 821-828. http://dx.doi.org/10.1037/h0077029

August, Diane. (2005). The Critical Role of Vocabulary Development for English Language Learners. Learning Disabilities Research and Practice.

Bakken, J.P and Cynthia G. Simpson. (2011), "Mnemonic Strategies: Success for the Young -Adult Learner". The Journal of Human Resource and Adult Learning Vol.7, Num.2, pp.79-85.

Benge, C. And Robbins, M.E. (2009). Using Keyword Mnemonic to Develop Secondary Students' Vocabularies: A Teacher's Action Resesarch. Journal of Language and Literacy Education, 6(1), 93-104.

Chan, L.P. (2000). An Investigation of the Effectiveness of the Mnemonic Technique in the Acquisition and Retrieval of Vocabulary by Chinese Speaking Form One Students.

Diamond, L. \& Gutlohn, L. (2006). Vocabulary Handbook.Consortium on Reading Excellence, Inc.

Frisby, A.W. (1957). "Teaching English", The English Language Book Society andLongmans Green and Co., p.98.

Gains, R. Redman, S.(1986). Working with Words. CUP.
Janet S. Shaeffer, J.S. (2011).Using Memories Strategies to Teach Letter-Name and Letter-Sound Associates. Education Department Master Theses. Chedarville University.

Higbee, Kenneth. (1977). Your Memory: How It Works and How to Improve It. New Jersey: Prentice Hall,Inc.

Kamil, M.L and Hiebert, E.H (2005)."Teaching and Learning Vocabulary: Perspectives and Persistent Issues" in E.H. Hiebert and M.L. Kamil (eds.) Teaching and Learning Vocabulary: Bringing Research to Practice. Mahwah, NJ: Erlbaum.

Lado, Robert (1964). "Language Teaching: A Scientific Approach", McGraw Hill: New York, p. 121.

Lewis, M. (1997).Implementing the LexicalApproach. LTP
Lorayne. H \& Lucas J. (1974). The Memory Book. New York : Stein and Day.
Mastropieri, M.A. ,Scruggs, T.E.\& Fulk, B.J.M. (1990). Teaching Abstract Vocabulary with the Keyword Method: Effects on Recall and Comprehension. Journal of Learning Disabilities, 23(2), 92-96.

Nunan, D. (1991). Language Teaching Methodology. London: Prentice-Hall.
Oxford, R.L.(1990). Language Learning Strategies: What every teacher should know. Rowley, Mass: Newbury House.

Pavicic, Visnja (2003), "Vocabulary and Autonomy"
Stahl, Sand Nagy, W (2005),Teaching Word Meaning. Erlbaum, Malwah.
Thornburry, Scott (2003).How to Teach Vocabulary. Longman Pearson Inc.: England

## APPPENDIX

## APPENDIX 1

Table 1. The Students' Scores of Control Group

| Student | Score of Pre Test | Score of Post Test |
| :---: | :---: | :---: |
| 1 | 72 | 76 |
| 2 | 76 | 80 |
| 3 | 72 | 80 |
| 4 | 64 | 68 |
| 5 | 68 | 72 |
| 6 | 72 | 76 |
| 7 | 80 | 88 |
| 8 | 68 | 68 |
| 9 | 72 | 76 |
| 10 | 68 | 72 |
| 11 | 80 | 88 |
| 12 | 68 | 72 |
| 13 | 68 | 76 |
| 14 | 60 | 64 |
| 15 | 60 | 68 |
| 16 | 68 | 76 |
|  |  |  |
| Mean | 69,75 | 75 |

APPENDIX 2

Table 2. The Students' Scores of Mnemonics Group

|  |  |  |
| :---: | :---: | :---: |
| Student | Score of Pre Test | Score of Post Test |
|  |  |  |
| 1 | 76 | 84 |
| 2 | 64 | 72 |
| 3 | 72 | 80 |
| 4 | 64 | 76 |
| 5 | 68 | 80 |
| 6 | 76 | 84 |
| 7 | 80 | 88 |
| 8 | 72 | 84 |
| 9 | 80 | 84 |
| 10 | 72 | 88 |
| 11 | 84 | 80 |
| 12 | 64 | 96 |
| 13 | 60 | 76 |
| 14 | 60 | 76 |
| 15 | 70,59 | 80 |
| 16 |  | 88 |
| 17 |  | 80 |
|  | 72 |  |
| $M e a n$ |  |  |

## APPENDIX 3

Table 3. Control Group's Pretest Score

|  |  |
| :---: | :---: |
| Student | Score of Pre Test |
|  |  |
| 1 | 72 |
| 2 | 76 |
| 3 | 72 |
| 4 | 64 |
| 5 | 68 |
| 6 | 72 |
| 7 | 80 |
| 8 | 68 |
| 9 | 72 |
| 10 | 68 |
| 11 | 80 |
| 12 | 68 |
| 13 | 68 |
| 14 | 60 |
| 15 | 60 |
| 16 | 68 |
| $M e a n$ |  |
|  | 69,75 |

## APPENDIX 4

Table 4. The Mnemonics Group's Pretest Score

|  |  |
| :---: | :---: |
| Student | Score of Pre Test |
|  |  |
| 1 | 76 |
| 2 | 64 |
| 3 | 72 |
| 4 | 64 |
| 5 | 68 |
| 6 | 76 |
| 7 | 80 |
| 8 | 72 |
| 9 | 72 |
| 10 | 80 |
| 11 | 72 |
| 12 | 84 |
| 13 | 64 |
| 14 | 60 |
| 15 | 60 |
| 16 | 72 |
| 17 | 64 |
|  |  |
| Mean | 70,59 |

## APPENDIX 5

Table 5. The Post Test Scores of Control Group

|  |  |
| :---: | :---: |
| Student | Score of Post Test |
|  |  |
| 1 | 76 |
| 2 | 80 |
| 3 | 80 |
| 4 | 68 |
| 5 | 72 |
| 6 | 76 |
| 7 | 88 |
| 8 | 68 |
| 9 | 76 |
| 10 | 72 |
| 11 | 72 |
| 12 | 76 |
| 13 | 64 |
| 14 | 68 |
| 15 | 76 |
| 16 | 75 |
|  |  |
| Mean |  |
|  |  |

## APPENDIX 6

Table 6. The Post Test Scores of Mnemonics Group

|  |  |
| :---: | :---: |
| Student | Score of Post Test |
|  |  |
| 1 | 84 |
| 2 | 72 |
| 3 | 80 |
| 4 | 76 |
| 5 | 80 |
| 6 | 84 |
| 7 | 88 |
| 8 | 84 |
| 9 | 84 |
| 10 | 88 |
| 11 | 80 |
| 12 | 96 |
| 13 | 76 |
| 14 | 80 |
| 15 | 88 |
| 16 | 80 |
| 17 | 82,12 |
|  |  |
| Mean |  |

## APPENDIX 7

## THE TESTS INSTRUMENT

## VOCABULARY TEST

1. Rather
2. Smog $\qquad$
3. Sorrow
4. Bicycle $\qquad$
5. Sweat $\qquad$
6. Then $\qquad$
7. Think $\qquad$
8. The last
9. Than $\qquad$
10.North : $\qquad$
11.Deny : ........................
12.Accept $\qquad$
13.As you wish: $\qquad$
14.Fan $\qquad$
15.East $\qquad$
16.Honest
: . $\qquad$
17.Far $\qquad$
18.Cruel $\qquad$
19.Boring $\qquad$
20.Fun $\qquad$
```
21.Small
22.Medium
23.Large
24.Cold
25.Cool
26.Enough
:......................
27.South
```

$\qquad$

```
28.Scream
```

$\qquad$

```
29.Soldier
```

$\qquad$

```
30.Elbow
``` \(\qquad\)

\section*{APPENDIX 8}

\section*{QUESTIONNAIRES 1}

Table 7. 5. Students who have Problems in Memorizing English Words
\begin{tabular}{llccc}
\hline & & Frequenc & Percent & Cumulativepercen \\
\hline Valid & Stronglydisagree & 2 & 6.1 & 6.1 \\
& Disagree & 6 & 18.2 & 24.2 \\
Neitheragree nor disagre & 18 & 54.5 & 78.8 \\
Agree & 6 & 18.2 & 97.0 \\
Stronglyagree & 1 & 3.0 & 100.0 \\
Total & 33 & 100.0 & \\
& & & \\
\hline
\end{tabular}

APPENDIX 9

\section*{QUESTIONNAIRES 2}

Table 7. 6. Students know what Mnemonic is and know what the function is
\begin{tabular}{llccc}
\hline & & Frequency & Percentage & Cumulative percent \\
\hline Valid & Disagree & 4 & 12.1 & 12.1 \\
& Neitheragree nor & 6 & 18.2 & 30.3 \\
& Agree & 12 & 36.4 & 66.7 \\
& Stronglyagree & 11 & 33.3 & 100.0 \\
& Total & 33 & 100.0 & \\
\hline
\end{tabular}

\section*{APPENDIX 10}

\section*{QUESTIONNAIRES 3}

Table 7. 7. When Having Difficulties in English for the First Time Students Guess the Word
\begin{tabular}{llccc}
\hline & & Frequenc & Percent & Cumulativeperce \\
\hline Valid & Stronglydisagree & 3 & 9.1 & 9.1 \\
& Disagree & 5 & 15.2 & 24.2 \\
& Neitheragree & 12 & 36.4 & 60.6 \\
& Agree & 9 & 27.3 & 87.9 \\
& Stronglyagree & 4 & 12.1 & 100.0 \\
Total 33100.0 & & & \\
\hline
\end{tabular}

\section*{APPENDIX 11}

\section*{QUESTIONNAIRES 4}

Table 7. 8. When Having Difficulties in English Words for the First Time Students Use Dictionary to Find the Meaning
\begin{tabular}{llccc}
\hline & & Frequency & Percent & Cumulativepercent \\
\hline Valid & Disagree & 1 & 3.0 & 3.0 \\
& Neitheragree nor dis & 21 & 63.6 & 66.7 \\
& Agree & 4 & 12.1 & 78.8 \\
& Stronglyagree & 7 & 21.2 & 100.0
\end{tabular}

Total 33100.0

\section*{APPENDIX 12}

Table 8. Test of Normality
Tests of Normality
\begin{tabular}{|ll|r|r|r|}
\hline \multirow{2}{*}{\begin{tabular}{l} 
Kelompok \\
\end{tabular} Pre } & \multicolumn{3}{|c|}{ Shapiro-Wilk } \\
\cline { 2 - 5 } & Ptatistic & \multicolumn{1}{c|}{ Df } & \multicolumn{1}{c|}{ Sig. } \\
\hline Pre & Mnemonics & .939 & 17 & .310 \\
& Control & .923 & 16 & .186 \\
Post & Mnemonics & .946 & 17 & .402 \\
& Control & .929 & 16 & .238 \\
\hline
\end{tabular}
a. Lilliefors Significance Correction
*. This is a lower bound of the true significance.

\section*{APPENDIX 13}

Table 9. Independent Sample Test

\section*{Independent Samples Test}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{2}{|l|}{Levene's Test for Equality of Variances} & \multicolumn{4}{|r|}{T-test for Equality of Means} \\
\hline & F & Sig. & T & Df & Sig. (2tailed) & \begin{tabular}{l}
Std. Error \\
Difference
\end{tabular} \\
\hline \begin{tabular}{l}
Post Equal \\
variances \\
assumed \\
Equal \\
variances not \\
assumed
\end{tabular} & . 157 & . 695 & \[
\left|\begin{array}{r}
3.23 \\
7 \\
3.22 \\
2
\end{array}\right|
\] & \begin{tabular}{l}
29.72 \\
5
\end{tabular} & \begin{tabular}{l}
.003 \\
. 003
\end{tabular} & \[
2.199
\]
\[
2.209
\] \\
\hline
\end{tabular}
```

