

## CHAPTER 1

### INTRODUCTION

#### A. Background Of Study

Language has an important role in improving students' intelligence, social, and physical. It helps students gain success in every subject at school. It is also an important device and very beneficial means for human being to communicate with other people. By using language, people can talk and understand each other

As an international language, English is very important and has many interrelationships with various aspects of life owned by human being. English is an international language which is used for communication all over the world. It is used in many fields of life such as in education, tourism, politics, technology, laws, business etc. English also has a very crucial position and become more popular since it is as a foreign language in Indonesia. It has been studied from elementary school until university. Although it is a foreign language, the students have to master that language in order to develop their skills and reach their dreams in the future. Thus, every school should contribute the best strategies and methods to help the students master this language. Study English as foreign language is also accordance with the message found in the Qur'an (Ar-Rum: 22). As follows:

لَا يَتَذَكَّرُ فِي مَا يَخْتَلَفُ وَالْأَرْضِ السَّمَوَاتِ خَلْقَ آيَاتِهِ وَمِنْ

لِّلْعَالَمِينَ

At the end verse Allah says.” Verily in that are sign those who know” it can be understood from this verse that Allah created some variation in our language in order to be thought and researched by human new condition of life and thought are constantly evolving new word and expression, new syntactical, structure and new words of pronunciation.

As an element of language, vocabulary is one important aspect in learning English as a foreign language. Mastery of vocabulary in language will also have understanding in term of speaking, reading, listening, and writing. People cannot communicate their ideas as clearly as they would like to express because of their limited vocabulary. Therefore, mastery of vocabulary would be much helpful to the students in learning language.

In teaching vocabulary, teachers often just follow the instruction in students' textbooks, such as explaining the material in the book, giving the students some examples and asking questions in this book. Teaching vocabulary is important so that students are able to communicate using the language they are learning. Students firstly should master a large number of vocabulary. Vocabulary as one component of English language is important to understand the structure, meaning and communication. To have a great vocabulary is not easy for the first young learners. The English teacher must

help them in building new vocabulary which the teacher to make the interesting study condition. The variety of techniques provides a good technique should depend on the instructional goals or the teacher competency. A good technique will make the teaching and learning process enjoyable. Vocabulary is one of among many knowledge that can be lost easily when we never remember and use it. Thus, the teacher has to develop their technique in teaching vocabulary to help the students in learning English. Vocabulary becomes a problem for the students of pre-intermediate and intermediate level, the reason is the student level of thinking is different and mastery vocabulary itself is very difficult. Sometimes there are students who can memorize many words, but other cannot, while for learning vocabulary it is needed many words, strong memorization and also practicing.

The ability to master vocabulary is very crucial in the Junior High School. Vocabulary is one key to improve the English achievement. There are many factors that cause the students' difficulties in learning English, one of the factors is the poor mastery of vocabulary knowledge. The students are lack of stock of the words. The students who have little knowledge of vocabulary will face some difficulties to understand the written language and oral language. Dellarand Hocking in Thornbury(2002, p.13) say, "If you spend most of your time studying grammar, your English not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with word." The students may get some difficulties in learning a language if they have limited number of

vocabulary. River argued that acquisition of an adequate vocabulary is essential for successful second language use. Without an extensive vocabulary, we will be unable to use the structure and function we may have learned for comprehensible communication. Another factor in teachers' English and learner is how to deal with vocabulary. Sometimes, the students could master and always remember all the vocabulary learned at school well, but after they have finished their study, they lose many of English words and only limited numbers are remembered. Saleh (1997, p.12) argues, "The success in mastering a language is determined by the size of the vocabulary one has learned. Thornbury, (2002, p.23) adds "The learner needs not only to learn a lot of words, but to remember them." To master all the language skills, vocabulary knowledge are important that have to known by the students and the teachers of English should have a technique that makes the students interested in learning vocabulary.

There are many techniques of making the students interested in what they are learning especially in learning vocabulary. Brown, (1994, p.48) says, "Techniques are the specific activities manifested in the classroom that are consistent with a method and therefore in harmony with an approach as well." One of technique is mind mapping which as a technique to help the students in memorizing the words which are expected in improving their vocabulary proficiency by memorizing easily.

The mind mapping strategy is one of the teachers' strategies in teaching. Not only Mind Mapping show facts, but also shows the overall structure of a subject and the relative importance of individual parts of it. It helps students to associate ideas, think creatively, and make connections that might not otherwise. Mind mapping is believed as one of the techniques or activities which can be used in teaching vocabulary which involve the essential idea and encourages memorizing vocabulary easily.

The problems above are also faced by students of SMPN 1 Kelumpang Hilir Serongga, Kotabaru at seventh grade. Many students are difficult to recall the vocabulary. They just get the vocabulary and the meaning from their teacher or dictionary to be remembered. They have lack of vocabulary. So, to cope the problem above, the researcher uses mind mapping to develop students' vocabulary mastery in teaching vocabulary. It can help students to memorize and remember vocabulary. In this study, the writer is interested in conducting a research entitled **“The Effectiveness of using Mind Mapping Technique in developing Students' Vocabulary Mastery (An Experimental Research at the Seventh Grade Of SMPN 1 Kelumpang Hilir, Serongga, Kotabaru Academic Year 2014/2015)”**.

## **B. Problem Statement**

Based on the background describe above, the problem is going to be discovered in this research As Follows:

1. Is there any a significant different between students' vocabulary mastery by using mind mapping and without using mind mapping?
2. Is teaching vocabulary using mind mapping technique effective in developing students' vocabulary mastery?

## **C. Objective of Study**

Based on the problem statement above, Objective of this study are the following:

1. To describe a significant different between students' vocabulary mastery by using mind mapping and without using mind mapping.
2. To find out whether using mind mapping technique is effective or not in developing students' vocabulary mastery.

## **D. Significance of Study**

The result of this study is expected to have advantages, such as:

1. It will overcome the difficulties of students' in memorizing their vocabulary.
2. It can help the students to be interested in learning vocabulary.
3. It will make students easier to remember vocabulary.
4. It will build up to develop student's vocabulary.

5. It will to be one of the references for other researchers to get information about teaching through mind mapping.
6. The writer will indirectly enlarge her knowledge and get experience by doing this study.

#### **E. Definition of Key Term**

1. Mind mapping is a visual form of note taking that offers an overview of a topic and its complex information, allowing students to comprehend, create new ideas and build connections. Through the use of colors, images and words, mind mapping encourages students to begin with a central idea and expand outward to more in-depth sub-topics.
2. Vocabulary is a group of words arranged in alphabetical order and briefly explained and should be studied in context. It is a list of words in a language with their meaning (Hornby, 2000:1331). Saleh (1997:60) states that vocabulary items fall into two principle categories, they are; (1) concrete words and (2) abstract words.
3. Mastery is great knowledge about or understanding of a particular thing. (Oxford advanced student's dictionary: 946). Mastery refers to having great skill at something or total dominance over something or understand something very well.
4. Student is any person who studies. All the students at the seventh grade of SMPN 1 kelumpanghilir in academic year 2014/2015.

5. SMPN 1kelumpangHilir is located on Jl.Jendral.A.Yani Km.294.  
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So, thewriter wants to analyze The Effectiveness of using Mind Mapping Technique in developing Students' Vocabulary Mastery (An Experimental Research at the Seventh Grade of SMPN 1 KelumpangHilir, Serongga, Kotabaru Academic Year 2014/2015).”

## **F. Hypothesis**

In this study, there are two hypotheses that null hypothesis (  $H_0$  ) and alternative hypothesis (  $H_a$  ). The hypotheses can be formulated as follows:

1. (  $H_0$  ) : There is not Effectiveness of using Mind Mapping Technique in developing Students' Vocabulary Mastery.
2. (  $H_a$  ) : There is Effectiveness of using Mind Mapping Technique in developing Students' Vocabulary Mastery



## **CHAPTER 11**

### **THEORETICAL FRAMEWORK**

#### **A. VOCABULARY**

##### **1. The Concept of Vocabulary**

English has a very large vocabulary consisting of more than a million. Vocabulary is very important for the students in learning English especially for communication to construct the meaning and making a language. One of those aspects is English vocabulary. It is impossible a person can express his/her ideas properly without a wide knowledge of English vocabulary.

To clarify the meaning of vocabulary, there are several definitions of vocabulary. Hornby (2000, p.1331) Vocabulary is a list of words in a language with their meaning. Saleh (1997, p.60) states that vocabulary items fall into two principle categories, they are; (1) concrete words and (2) abstract words. Penny ur (2012, p.60) Vocabulary can be defined, roughly, as the words we teach in the foreign language.

According to Gary Bell (2007, p.434) vocabulary is the total numbers of word in a language. Then, Fauziati (2005, p.155) argues that vocabulary is central to language and of critical importance to typical language learner. Without a sufficient vocabulary, one cannot communicate effectively or express his ideas in both oral and written form. In addition, Dupuis et al (1989, p. 67) states that vocabulary refers to “a set of words or phrases which label the

parts of material to be learned and which are necessary for students to use in talking and writing about the material.”Vocabulary mastery is a great skill of knowledge about a set of words known by a person as a part of specific language Moreover, David Nunan (2003, p.134) states that vocabulary must not only be know, it must be readily available for us.Harmer (2001, p.4) states that vocabulary is one of the most obvious components of language and one of first things applied linguistics turned their attention.

On the other hand, Vocabulary is the stock of words used by people or particular uses or person, or a list of collection of the word of a language, book, author and branch of science or the like, in alphabetical order and defined. According to Fauziati (2005, p.157), vocabulary is one of the aspects of language besides grammar and pronunciation. Vocabulary mastery is crucial to language acquisition. An adequate vocabulary is essential for successful second language use because without an extensive vocabulary will be unable to use the structures and functions which we may have learned for comprehensible communication. Scrivener (1994, p.73) argues that vocabulary is a powerful carrier of meaning.

Jack C. Richards (2002, p.225) states that Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write. Without an extensive vocabulary and strategies for acquiring new vocabulary, learners often achieve less than their potential and may be discourages from making use of language learning opportunities around them such as listening to the radio, listening to native

speakers, using the language in different contexts, reading, or watching television. Stuart & Grains (2003, p.171), adds the vocabulary is the complete words in language. It consists of some terms of words that can differentiate one language to another language. Vocabulary is the central element in a language that connects all efficient skills in speaking, listening, writing reading and will be use full if we understand the meaning of these words. Even the most of intelligent students often complain about their major problems in acquiring English, which is the lack of vocabulary.

Thornbury (2002, p.15) states that having an extensive vocabulary means knowing lots of words. At the most basic level, knowing a word involves knowing its form and its meaning. In other words, knowing the meaning of a word does not just about know its dictionary meaning. There are many vocabularies in this world; dictionary is one of ways to know the new words. A dictionary is really along list of individual words, but normal situations, words are very rarely used on their own, appearing instead together with other words Porter (2007, p.2).

S.H. Burton (1982, p.98) said: “without a large vocabulary, it is impossible to use English language precisely and vividly”. Vocabulary as one of the language aspects have to be learned when people are learning a language. Good mastery of vocabulary is important for anyone who learns the language used in listening, speaking, writing, and reading beside grammar. A learner of the foreign language will speak fluently, write easily and understand what he or she reads or hears if he or she has enough vocabulary. Norbert

Schmitt (1997, p.5) gave the definition of vocabulary as follows. Vocabulary is a basis of language: it is very important be mastered first. We can not speak and write well, or understand written materials if we don't have master it.

Longman dictionary of American English (2007, p.1015) defined "vocabulary means all the words that someone know, learn of uses, or the words that are typically used when talking about particular subject or all the word in particular language".

Another dictionary, Merriam Webster (2002, p.1600) defined "vocabulary as a list of words and, often, phrases, abbreviations, inflectional form, etc., usually arrange in alphabetical order and defined or otherwise identified, as in a dictionary or glossary".

Vocabulary is language elements of language as important means of communication children vocabulary is usually achieved through oral language. Adults' students like to encourage using oral language by asking questions or explaining what is their mind. Many students fail to communicate effectively because they do not have sufficient vocabulary mastery. Rozakis (2003, p.4) adds the more words we learn the more ideas we should have. Words are combination of letter that meaningful unit of verb, adverb, adjective, noun and preposition.

From definition above, the writer comes to the conclusion that vocabulary is knowledge of words or word meanings, or vocabulary is the total number of words with has meaning in every words which is very important as an instrument of communication to express idea, opinion, written or orally.

## 2. The Importance of Teaching Vocabulary in Learning English

Vocabulary is very important component that students must master in learning language, because with have a lot of vocabulary, they can understand what they read and will be able to understand the message of the text well. Therefore, vocabulary plays the most important role in learning English. Allah the Almighty in Surah Al-Baqarah verse 31 says:

نُكُنْتُمْ إِن هَتُّوْا بِأَسْمَاءِ أَنْبِيُونِي فَقَالَ الْمَلِيْكَةِ عَلَي عَرَضَهُمْ ثُمَّ كُلُّهَا الْأَسْمَاءِ آدَمَ وَعَلَّمَ

صَدِيقِي

This verse tells that Allah has given names everything in the world. So that vocabulary becomes important component that the student must master for learning language. If they have mastery in vocabulary well, they can easily understand what the people saying (native speaker). However, vocabulary is very important in learning language.

The teacher also has important role in teaching vocabulary, the teacher should be able to select the most appropriate way and tool to ensure the improvement of the students' vocabulary ability. The Learning vocabulary indeed needs special strategy in order to remember the words that have been well studied in order not passed quickly. According to Chambers & Gregory (2006, p.40), Complex of activities, strategies, mechanisms, invitations, stimuli and rhetorical ploys designed to help students learn and to become better learners. In relation to the communication, one of the purposes of learning a

language is to be able to use the language or the words in communication. And how is our structural pattern which was absolutely perfect without a sufficient stock of the vocabulary, we will face the problem of expressing ideas and understand those ideas. This means that although the students could use grammar without sufficient stock of vocabulary, they would get some problem in learning the language. As noted by Schmitt (2010, p.4) learners carry around dictionaries not grammar books to practice their English communication. Ellis et al. (2009, p.33) state a variety of different techniques are available for examining brain activity. The teacher must use teaching techniques that can help students in master vocabulary well.

Vocabulary is a basic building block of language learning, Pollard (2008, p.13). In learning foreign language, it is necessary to master the vocabulary is crucial in language learning since the ability to communicate is primary supported by master of that language. It is impossible for the students to read, write and speak a foreign language without have master of vocabulary. Learning new vocabulary not only just memorizing form of the words but also we must understand the meaning.

The linguist Davit Wilkins Summed up the importance of vocabulary learning by saying ‘without grammar very little can be conveyed, without vocabulary can be conveyed’. (Dellar H and Hocking D, Innovation, LTP): ‘If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost

anything with words!'. Show that vocabulary be basic first in a language. The mastery of vocabulary is needed for the learner specially to be able to communicate easily and fluently in the target language. However, if we want to be able to communicate with the other, specially, with native speaker, we have to master of vocabulary mostly and also other skills of language.

Nasrun Mahmud (200, p.25) argues that a good vocabulary goes hand in hand with ability to think logically and to learn easily and quickly. good vocabulary and ability use words correctly and effectively can become a passport to worlds of interesting and exciting information, a person can travel in the past, in the present, and in the future through the words he needs or hears. He can learn to use words to help transport others to world he has discovered. Therefore, without vocabulary knowledge, students cannot understand what they read in the text well, and they will have difficulty in do communication written and orally.

So learning vocabulary is very important in a language and many ways to learn it, such as watching west movie, reading English book, listening to the song, radio, or news and also try to speak with the native speakers when meet them.

### 3. Kinds of Vocabulary

Scrivener (1994, p.7) divided vocabulary into two kinds; there are productive (active) vocabulary and receptive (passive) vocabulary.

- Productive vocabulary is the sets of words that are used in spoken communication. Good pronunciation might be encouraged getting the sounds and the stress right.
- Receptive vocabulary is the use of words that we recognize and understand, but tend not to use ourselves.

The English vocabulary can be divided into five groups, in traditional grammar, these function are classified into part of speech; nouns, adjective, verbs, adverbs and pronoun Ellsworth & Higgins, (2004, p.3). Each of these groups of vocabulary will be discussed in the following sections.

#### a. Noun

A word used as the designation or appellation of a creature or thing, existing in fact or in thought; a substantive. Noun is a word that names a person, place or thing Rozakis, (2003, p.27). Nouns come in the varieties; concrete noun, proper noun, common noun, collective noun, abstract noun, singular noun, plural noun, countable noun and uncountable noun.

- 1) Common nouns: Colman (2005, p.8) states that common nouns are the names of ordinary things we can see, touch or name of anything such as a class, a person, place or thing ( e.g. girl, city, village, food, stick, book, dog, blackboard, pen, pencil, bed, etc).



- 2) Proper nouns are nouns that really names, proper noun usually refer to a particular named person or a thing. Hands (2009, p.136). Such as, name specific person, place, or thing (e.g. Josh, Holland, John, Tom, etc).
- 3) Compound nouns are two or more nouns that is formed as a single unit. A compound noun can be two individual words, words joined by a hyphen, or two words combined. Hands (2009, p.151) the meaning of the whole compound is often different from the meaning of the two words on their own. (e.g. individual words: time capsule, hyphenated word: great uncle,combined words: basket ball, book shop, etc ).
- 4) Collective nouns are nouns that can be considered to be singular or plural, without changing the form of the noun. These collective nouns can have a singular verb or plural verb with their singular (stem) noun form Kennedy (2007, p.147). Such as: name groups of people or things (e.g. audience, family, herd, crowd, etc).
- 5) Abstract nouns according to Colman (2005, p.8) are the names of thing or anything that cannot be touched, seen, smelled or perceived by the senses or “put in the box” (e.g. happiness beauty, sadness, difficult, stupidity).
- 6) Concrete noun is anything that we can see, touch, smell or perceive the senses. A concrete nouns names an objects that can be perceived by the senses. Ellsworth& Higgins (2004, p.17). Such as, (e.g. pencil, book, bag, dog, woman, mice, etc).

- 7) Countable noun is anything that can be counted. Kennedy (2007, p.143).  
(e.g. boy, cat, cow, blackboard, etc).
- 8) Uncountable noun is anything that cannot be counted, we perceive nouns as continuous masses, substance or abstract. Qualities which cannot be counted, they do not exist as separate distinct units. Kennedy (2007, p.143). Such as: water, milk, sugar, sand, etc.

### **b. Adjective**

Leech (2006, p.5) states that adjectives are words that describe nouns and pronouns, they are the color, commentators of language and the words that give your writing and speech flavor or tell us something about nouns (e.g. white, beautiful, clever, black, etc.). Another adjective definition given by Dixon & Alexandra (2001, p.18), the adjective differs from nouns and verbs in varying ways in different languages. The differences related to functional possibilities, whereas a noun will always relate to the predicate argument slots in clause structure, and a verb will always relate to the predicate. The functional expectations for an adjective are both more complex and more varied.

### **c. Verb**

Verbs are words that name an action or describe a state of being. Verbs are seriously important, because there is no way to have a sentence without them. In addition, Rozakis (2003, p.29) states that action verbs tell what the subject does or verbs are the words or phrases that give the action or assert something in sentences (e.g. go, run, jump, write, read, listen, speak, walk, swim, etc). There are several kinds of verb, such as:

- 1) Transitive verb is a verb that needs a direct object to complete its meaning. That is it expresses an action that passes across (transit) from doer, the subject-to a receiver-the direct objects. Ellsworth & Higgins, (2004, p.10). e.g. I make statue, she read a book, etc.
- 2) Intransitive verb is a verb that does not need a direct object to complete its meaning. It expresses an action that does not have a receiver Ellsworth & Higgins (2004, p.10). E.g. cries, slips, swims, dance, sing, etc.
- 3) Auxiliary verb is a verb that helps another verb or the principle verb to express action or condition or state of being (e.g. is, am, are, do, does, have). These verbs are used in combination with noun verbs, in order to allow us to talk about different period of times. Hands (2009, p.22).

#### **d. Adverb**

Thorne (2008, p.14), Adverb is words that describe verbs, adjectives or other adverbs. Adverbs answer the questions “when?”, “where?”, “how?”, or “to what extent?” or words or phrase which modified a verb and adjective, another adverb and an entire sentence. Adverb is defined as a word that describes verb, adjective, and adverb itself. Seaton & Mew (2007, p.127). They are used to say that adverbs tell how, when and where a thing is done. You would expect, therefore, to find adverbs connected to verbs, and that’s where they mostly are, not always alongside, but still connected. Colman (2005, p.26). When you want to add information about how, when, where, or to what extent something has happened, you can use an adverbial. Many adverbials are

members of the group of words called adverbs, but adverbials are not necessarily just single words. They can also be word groups, prepositional phrases, or even the clauses. According to Collins (2000, p.96), they are sometimes called adjuncts.

#### **e. Pronoun**

Pronoun is defined a word that is used in place of noun. Pronoun is very necessary part of speech. Without it, our language would be very repetitious. The sentences would be very lengthy and awkward. According to Seaton & Mew (2007, p.44) there are four kinds of pronouns. The first is personal pronoun. It is used as the subject of the verb in a sentence and takes the place of noun. I, you, they, we, she, he, it are personal pronoun. The next pronoun is reflexive pronoun. It is word that refers to the person or animal which is the subject of the verb. The words myself, yourselves, themselves, herself are the examples of reflexive pronoun. Conversation would sound very strange if we had no pronouns. These are the words we use when we want to refer to people or things without continually repeating their names. Colman (2005, p.10).

#### **4. Strategies of Teaching Vocabulary**

Learning vocabulary is one of important part in learning English. In teaching vocabulary teacher must have some techniques, because it is important part in teaching that have to be mastered by teacher.

Anthony as quoted Richards said that “technique is implementation that which actually takes in classroom. It is particularly trick, strategy, or contrivance used to accomplish an immediately objective.

Strategies or techniques were the specific activities manifested the classroom that were consistent with a method and therefore were harmony with an approach as well.

There are some strategies can be applied in teaching vocabulary as follow:

1. *Synonyms*

A similar exercise could be done by making students to find synonyms for a particular set word. Or students might be asked to define a set words based on their understanding of them as they occur in the reading passage. Other exercises that ask students to work with the vocabulary of the passage are also possible.

2. *Antonyms*

Students are given one set of words and are asked to find antonyms in the reading passage. The antonyms are a word that has contrary opposite in meaning to another. Teacher can applies this easily with many examples.

3. *Fill in the blank*

Students are given a series of sentences with word missing. They fill in the blank with new vocabulary items or with item of particular grammar type, such as preposition or verbs with different tenses.

#### 4. *Memorization*

Students are given lists of target language vocabulary words in their native language equivalents and are asked to memorize them.

#### 5. *Use Word in Sentence*

In order to show that students understand the meaning and use of a new vocabulary item, they make a sentence which they use the new word.

#### 6. *Composition*

The teacher gives the students a topic to write about in the target language. Topic is based upon some aspect of the reading passage of the lesson. Sometime, instead of creating a composition, students are asked to prepare a précis of the reading passage. Larsen (1986, p.13). It also helps the students expend their vocabulary.

#### 7. *Reading Aloud*

Students take turn reading sections of passage, play or dialog out loud. At the end of each students turn, the teacher uses gesture, picture, reality, examples or other means to make the meaning of the section clear.

#### 8. *Dictation*

The teacher reads the passage three times. The first time the teacher reads it at normal speed, while the students just listen. The second time she reads the passage phrase, pausing long enough to allow students to write down what they have heard. The last time the teacher again reads a normal speed and students check their work.

### 9. *Paragraph Writing*

The teacher in the class asked the students to write a paragraph in their own words on the major geographical features. They could have done this from memory, or they could have used the reading passage in the lesson as a model. The students try to use the vocabulary they have learned and expand the new vocabulary.

### 10. *Complete the Dialog*

Selected words are erased from a dialog students have learned. Students complete the dialog by filling in the blanks with missing words. The word use must be appropriate with the sentences.

### 11. *Role-Play*

Students are asked to present temporarily that they are someone else and to perform in the target language as if they were that person. They are often asked to create their own lines to the situation. The student explains whom they will be performing, so the others understand who he/she is.

### 12. *Individualized Picture Matching*

Prepare a sheet containing about 20 small pictures and sentences. The sentences should consist of the word to be learned in a simple context. Highlight the word in a sentence to be matched with the picture. Have each learner work individually to match the sentence with pictures. When they have finished, they mark their work from an answer sheet. The student tries to understand both sentence and description of the picture.

### *13. Repetition*

The activity is based on the premise that learning the correct meaning of word must be followed by sufficient frequency of use. Initial learning should be carried out in the most meaningful and diverting of ways. This variation on the game called "Nature Memory" is one way of achieving a goal. The teacher tries to explain more to classify of some kind of word according to the reach shape.

### *14. Word Shapes*

This activity encourages beginning students to consolidate and build on their receptive and productive knowledge of nouns. Speculation about different shapes will generate related vocabulary, for example, different kinds of fruits and vegetables. This way informs the student to classify of some kind of word according to the each shape.

### *15. Scrabble*

The game of scrabble is an entertaining way to learn and use vocabulary even for native speaker. However, certain adjustment in the rules can improve the teaching value of the game.

### *16. Crossword Puzzle*

The crossword puzzle can be based on one vertical word or phrase that maybe a hidden message, for example, happy New Year. Procedure: give each learner in the pair half the crossword puzzle, with clues for every second line in the puzzle. Have learner A tell leaner B the definition of the wanted word. If B cannot figure it out from this clue, use the hangman



game with the letters if word mixed up. If learner B still cannot guess, A says the last letter is. Reverse the role to work on the next line in the puzzle. The crossword puzzle also an entertain way applies in teaching and learning vocabulary.

#### *17. Define and match*

Give half of the class a list of words and the other half a list of definition. Ask the learners with the words to try to give a meaning in English and learners with the definitions to try to think of the defined words. Have the learners from pairs, with one learner having a list of words and the other list of definitions. They match the words with the definitions and see how many they got correct. This technique informs the student the definition of words, so the students can use that words as well.

#### *18. Story telling*

This activity allows teachers to create interesting vocabulary lessons that incorporate the language skills of listening, speaking, reading and writing. Students focus on a topic while gaining productive vocabulary knowledge. Choose a true, interesting, and short story. Consider all available forms of the media as possible sources. Don't write the story and plan to read it; natural language and spontaneous elaboration aid comprehension. Before the students retell the story the teacher has to help them to understand more. So the work runs well.

### *19. Vocabulary Ranking*

Make a ranking activity based on word that is useful for the learners. The word may be one from a text that the learners are working on. Give the activity to the learners to do in small groups. Get the groups to the report and justify the result of their ranking to the rest of the class. Sometimes the student gave picture to what will help them to arrange in correctly ranking.

### *20. Mind mapping*

Mindmapping which as a strategy to help the students in memorizing the words which are expected in improving their vocabulary proficiency by memorizing easily. It allows the students to clarify their thoughts by categorizing and grouping into related ideas. It starts with the students' main branches of mind mapping to represent the main points of their thought (right brain) then combined by the interesting colors and image (left brain) which will stimulate the brain.

### *21. Guessing Word in Context*

Teacher often try to convince student that they don not need to resort to the dictionary for every unknown word they encounter; however, students are often not easily convinced of this fact. The value of this exercise is that students see for themselves that it wastes time to look up every unknown lexical item because a reader can get an approximate meaning based on contextual clue. Most students also find this exercise lot of fun. This technique trains the student to understand the word without using the dictionary.

## 22. *Vocabulary Card*

Using vocabulary cards is a word learning strategy for independent learning in or out of class. On the side of the card is written the word to be learned. On the other side is the word meaning, usually in the form of a first language translation. This technique tries to expand the students' vocabulary mastery.

## **B. DEFINITION OF MASTERY**

Before we know what mastery is, we have to know what is master. Longman dictionary of American English (2007, p. 556) defined master is skilled at something or someone who is very skillful at doing a particular job, while mastery is great skill or knowledge. Thomson & Heinle (2008, p.564). Mastery is a particular skill or language. It means he or she

From definitions above, the writer conclude that mastery is the power of human' brain to work mind such as familiar, know, understand, analyze, organize and summarize something until reaching the top level. It means great knowledge, having great skill at something or total dominance over something or understand something very well.

## **C. MIND MAPPING**

### **1. The General Concept of Mind Mapping**

Mind mapping is a visual form of note taking that offers an overview of a topic and its complex information, allowing students to comprehend, create

new ideas and build connections. Through the use of colors, images and words, mind mapping encourages students to begin with a central idea and expand outward to more in-depth sub-topics.

(<http://www.inspiration.com/visual-learning/mindmapping>).

## **2. Definition of Mind Mapping**

Mind Maps were popularized by author and consultant, Tony Buzan. They use a two-dimensional structure, instead of the list format conventionally used to take notes. Mind Maps are more compact than conventional notes, often taking up one side of paper. This helps student to make associations easily, and generate new ideas. If student find out more information after they have drawn a Mind Map, then they can easily integrate it with little disruption. More than this, Mind Mapping helps student break large projects or topics down into manageable chunks, so that you can plan effectively without getting overwhelmed and without forgetting something important.

Mind mapping is a method that uses comprehension or concentration skill and involves in a note taking from that relates each fact or idea to every other fact or idea. Mind maps are an increasingly popular strategy that helps students to see the whole picture as they learn. Buehl (2002, p.87)

Based on DePotter and Hernacki(1992, p.153), “Mind mapping is the use of whole brains technique by using the visualization and other graphic infrastructure to make an impression”. Besides, mind mapping is one of

techniques which can make the students more enjoyable and interesting in studying vocabulary.

Buzan(2005, p.6) claims that a mind map is a powerful graphic technique which provides a universal key to unlock the potential of the brain. It harnesses the full range of cortical skills – word, image, number, logic, rhythm, color and spatial awareness – in a single, uniquely powerful manner. In so doing, it gives you the freedom to roam the infinite expanses of your brain

According to Martin as translated into English in Trianto, (2009, p.158) mind mapping is a concrete graphic illustration which indicates how a single concept related to other concept in the same categories. Mind mapping is a pattern which at least consists of picture, symbol and color that will not just help the students to understand the vocabulary knowledge but also make the students feel good, enjoyable and attract their brain which at last leads them to have interest in mastery vocabulary knowledge.

According to Silberman as translated into Indonesia in Komaruddin, (2001, p.181). *Pemetaan pikiran adalah cara kreatif bagi peserta didik secara individual untuk menghasilkan ide-ide, mencatat pelajaran atau merencanakan penelitian baru.*

*Dengan memerintahkan peserta didik membuat peta pikiran memudahkan mereka untuk mengidentifikasi secara jelas dan kreatif apa yang telah mereka pelajari dan apa yang sedang mereka rencanakan.*

Mind mapping is a method that uses comprehension or concentration skill and involves in a note taking from that relates each fact or idea to every other fact or idea. The Mind Map can be applied to every aspect of life where improved learning and clearer thinking will enhance human performance (<http://www.mindmapping.co.uk/mind-mapping-definition.htm>).

Alamsyah (2009) in Rismanto Journal (2012) explained that Mind maps work well as their visual design enables students to see the relationship between ideas, and encourages them to group certain ideas together as they proceed.

From definition above it can be concluded that A mind map is a diagram used to represent words, ideas, tasks, or other items linked to and arranged radially around a central key word or idea. Mind maps are used to generate, visualize, structure, and classify ideas, and as an aid in study, organization, problem solving, decision making, and writing.

### **3. The Characteristic of Mind Mapping**

Mind mapping is a graphical method of taking notes, their visual basis help one to distinguish words or ideas, often with colors and symbols. They generally take a hierarchical or tree branch format, with ideas branching into their subsection. Mind mapping allow for greater creativity when recording

ideas and information, as well as allowing the note taker to associate word with visual representations.

According to Buzan (2006, p.31) mind mapping can use in many activities, such as: mind mapping to communicate and do presentation, to plan family activity, to start new effort and how way to summarize content of book.

Mind map have four essential characteristics. Tony Buzan and Barry buzan (2003, p.59)

- a. The main topic of the Mind Map is summarized as a centre image, word or phrase.
- b. The main themes of the subject radiate from the centre image as branches.
- c. Branches comprise of key word, image or topic presented on an associated line they divide out into further higher level sub branches.
- d. The branches and sub-branches form a connected structure.

To aid the process of memory and recall, a mind map uses of.

- a. Color – this is use to differentiate areas of the Mind Map
- b. Visual images such as pictures, codes, and dimension – these are used throughout to illustrate different themes and topic.

Buzan lists that there are four key characteristics of a mind map:

- a. There is one key concept, often expressed graphically as an image.

- b. From the key concept or image radiate out branches each of which contains another key concept which is a subset of the main concept.
- c.
- d. Attached to these main branches are other branches which represent less important concepts.
- e. Together, the branches and central image form a nodal structure

Mind Maps are useful for:

- Brainstorming– individually and as a group
- Summarizing information, and note taking.
- Consolidating information from different research sources.
- Thinking through complex problems.
- Presenting information in a format that shows the overall structure of your subject.
- Studying and memorizing information.

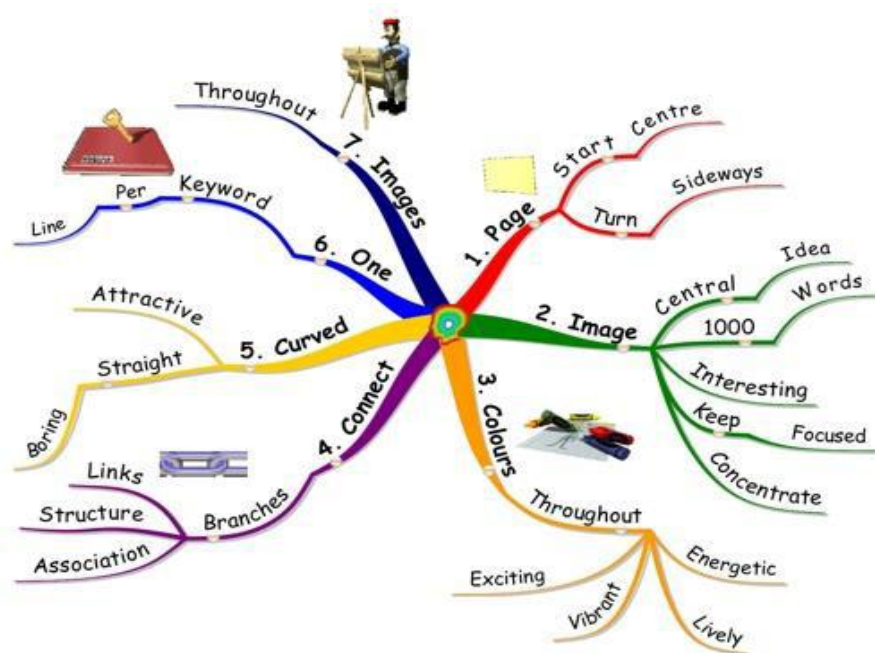
#### **4. The Techniques of Making Mind Mapping**

The steps in making mind maps is by identifying all concepts or words that will be mapped, and then develop the concepts or words from the most general to the specific. Then make a relationship between them with connecting lines.

Mind mapping is a highly effective way of getting information in and out of the brain. Mind mapping is a creative and logical means of note-taking and



note-making that literally “maps out” the ideas. In his book, Buzan (2004, p.15) suggests using the following guidelines for creating Mind Maps:



Buzan(2005, p.25) explains that, there are some steps to make mindmap as follow:

- a. Start in the center of a blank page turned sideways.

Because starting in the center gives your Brain freedom to spreadout in all directions and to express it more freely and naturally.

- b. Use an image or picture for your central idea.

Because an image is worth a thousand words and helps you use your Imagination. A central image is more interesting, keeps you focused, helps you concentrate, and gives your Brain more of a buzz!

- c. Use colors throughout.

Because colors are as exciting to your Brain as images. Color adds extra vibrancy and life to your Mind Map, adds tremendous energy to your Creative Thinking, and is fun!

- d. Connect your main branches to the central image and connect your second- and third-level branches to the first and second levels, etc.

Because your brain works by association. It likes to link two (or three, or four) things together. If you connect the branches, you will understand and remember a lot more easily.

- e. Make your branches curved rather than straight-lined.

Because having nothing but straight lines are *boring* to your Brain.

- f. Use one key word per line.

Single key words give your Mind Map more power and flexibility.

- g. Use images throughout. Each image, like the central image, is also worth a thousand words.

So if you have only 10 images in your Mind Map, it's already the equal of 10,000 words of notes!

## **5. The advantages of using Mind Mapping**

Mind mapping helps students and teachers in the learning process, because it can stimulate Left Brain and Right Brain synergistically. We need to know the advantage of using mind mapping like an interesting shape, enhance creativity, imagination, etc.

The advantage of mind mapping is flexible, it means that brain be able to move fluently to all of direction Buzan, (2003, p.97). The students can focus on learning. They also can understand the material and mind mapping attract to learn.

DePorter and Hernacki(1992, p.172) describe that there are some advantages of using mind mapping technique, they are as follows;

a. Flexible

Explaining something can be easy without confusing in add the material based on the mind mapping. We can put the label and category of something based on our own opinion anywhere in the mind mapping.

b. Concentrate on the Topic

Getting the subtopics what we talk about with focus on the main ideas easily. Keep focus on the keyword can help us to make it simple and it does not waste the time.

c. Increasing Comprehension

Using mind mapping can make easy in understanding the material. Mind mapping is a simple think pattern so it is not make us confuse to understand what we have learned and easy to remember the material.

d. Enjoyable

Imagination and creativity are unlimited in using mind mapping, so it can be funny to learn. By using pictures and colors, it makes the brain enjoy and excited in thinking something what we want about the material.

According to Buzan (2005, p.111) Mind Maps will help student:

- a. Increase your speed of thinking
- b. Give students infinite flexibility
- c. Explore the outer reaches of your thinking where original ideas abide

Figure 1. An example of mind mapping taken

from: [www.brainicsmart.com/buzan-mind-map.html](http://www.brainicsmart.com/buzan-mind-map.html)



According to Buzan (2005, p.17) mind mapping helps the students in

terms of:

- a. Plan
- b. Communicate
- c. Become more creative

- d. Save time
- e. Solving the problem
- f. Focus on learning
- g. Develop and clarify thoughts
- h. Remember be better
- i. Learn more quickly and efficiently

## **6. Parts of Mind Mapping Technique**

There are some parts of mind mapping Windura, (2008, p.77) namely; (a) central image, (b) key word, (c) basic ordering ideas, (d) branches, (e) color and (f) picture.

### **a. Central Image**

A central image has to describe the main idea of a mind mapping and put it on the center of the paper. It is for activate the students' right brain, strengthen the students' memory and make the learning activity enjoyable.

### **b. Key Word**

A key word is a word that can lead a sentence or event. Identifying a familiar word in one's own language or another language that sounds like the new word and using only one key word per line. It is as an urge to remember a lot of words for the students. It is strong noun or verb that creates image to trigger recall the memory.

### **c. Basic Ordering Ideas**

Basic ordering ideas are the branches that collect sort information and it connected to the central topic that radiate out from the centre. Making basic ordering ideas which can direct our mind to make mind mapping and it need creativity that encourage the students to understand to the material. It is thick and thinner at the ends. It can be seen as headings for your topic and spread anywhere but do not become steep.

d. Branches

The branches should be curvy and in the same length as the words or pictures above it. These branches can be seen as sub headings. It is thinner branches and containing details.

e. Color

Color is a very good memory sign and it involves the right brain in learning for long term memory. Colors encourage creativity and help in memorization. Adding plenty of colors via branches, map background and images will add life to your mind map. It makes easier to comprehend and remember.

f. Picture

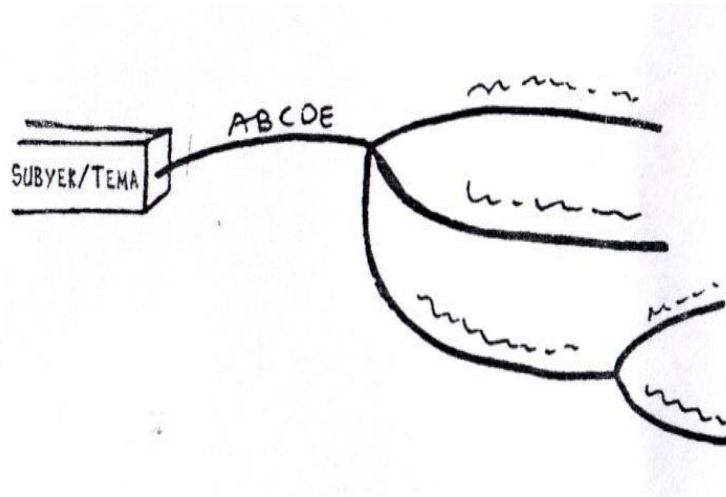
In mind mapping, pictures which can change or strengthen a key word that has been written before.

## **7. Kinds of Mind Mapping**

According to Svantesson (2004, p.62), there are three types of mind-map such as:

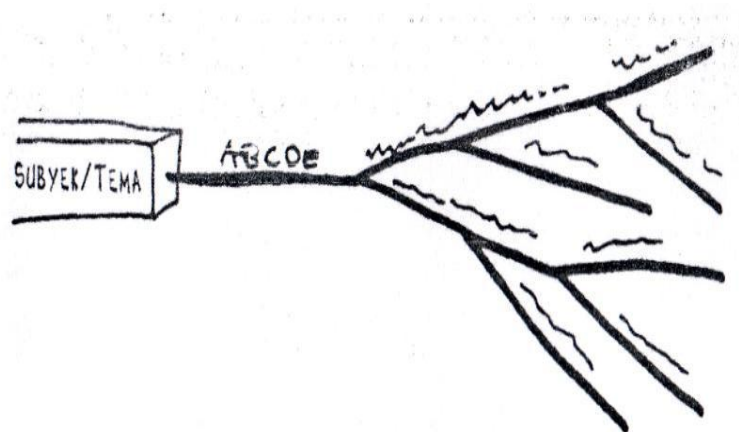
## d. Hayfork

Hayfork can be made by create a main topic in the center, and then connected with lines. In addition, submit new lines and write the words below the lines.



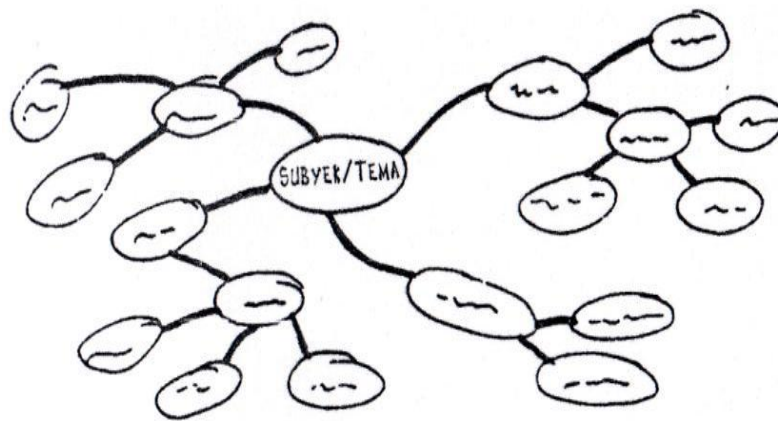
## e. Thorn fish

This model could be seen in the figure below:



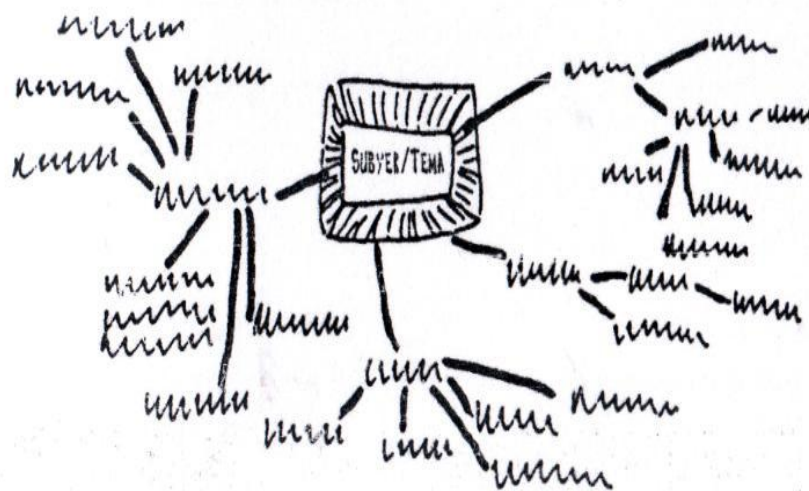
## c. Clustering

This model looks like waves or molecule. It can be create by make a main idea in the center; moreover, we should add branches. Then, every branch contain of a word in order to avoid confusing.



d. A variation for the beginner

This variation usually uses for beginner. It's looks like another style but little bit different. This model could be seen in the figure below:





Mind mapping is similar to a road makes study, work and thinking enjoyable, it can help to solve the lack of stock of students' vocabulary in memorizing some words which are related from universal word as a key word

### **8. Theoretical Procedure of Teaching Vocabulary through Mind Mapping**

In teaching mind mapping technique, Buzan (2004, p.56) gives some direction, it is as follows;

Step 1: Make a central image in the center of the paper. Color and add something interesting.

Step 2: Draw some basic ordering ideas, spread out from the central image.

Step 3: Thinking of all something interesting as much as possible and funny for you and it can be connected with the central image to give you the inspiration.

Step 4: Add some branches to the basic ordering ideas using symbols, pictures, and colors as much as possible.

Step 5: Thinking of the details which are interesting and it can encourage your curiosity. Add to your mind map.

Step 6: Continue it until you have adequate information for your mind map.

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. Research Design**

The design of the research the writer will use the experimental research. Experimental research approach is quantitative approach design to ferret out cause and effect relationship. Experimental research is always done to see the effect of the treatment.

Fraenkel and Wallen (1990, p.237) state,

The posttest-only control group design involves two groups, both of which are formed by random assignment. One group the experimental treatment while the other does not, and then both groups are post-tested on the dependent variable. The choice of variables on which to match is based on previous research, theory, and/or the experience of the researcher.

This design involves three steps. The first step is the administration of a pretest measuring the dependent variable. The second step is the application of the experimental treatment (independent variable) to the subjects, and the final step is the administration of a posttest measuring the dependent variable again. Borg & Gall (1973, p.377).

The design is as follows;

**Table 3.1 The design of Experimental research**

Experimental class	<b>R</b>	<b>M</b>	<b>X<sub>1</sub></b>	<b>O</b>
Control class	<b>R</b>	<b>M</b>	<b>X<sub>2</sub></b>	<b>O</b>

Where:

R : Randomization.

M : Matching process through a pretest.

X<sub>1</sub> : Teaching through mind mapping.

X<sub>2</sub> : Teaching without mind mapping.

O : Post-test.

In doing this research, the writer would select students from the school randomly and then divide become two group, there are experimental class and control class. The writer would give pretest to each group and one group would receive the experimental treatment while the other would not receive it

## **B. Research Location**

The research will conduct at SMPN 1 KelumpangHilir, which is located Jl.Jendral.A.Yani Km.294. DesaTegalrejo, KecamatanKelumpang-Hilir, KabupatenKotabaru.

### **C. Research Instrument**

The writer gave pre- test and post-test. Based on Arikunto's theory, the writer uses the test as follows:

Pre-test : the test is given before the treatment

Post-test : the test is given after the treatment

The instrument for this research is an objective test, and the writer used three types of objective test, there are true and false, fill and the blank and matching. In the research the test consist of 30 items.The writer distributed the posttest to the sample to find out their progress during the research. So the writer applied the achievement Test. A pretest which was given to the students before the writer taught the students. A posttest which was given to the students after the writer taught the students.

### **D. Population and Sample of the research**

#### **1. Population**

The population of the research is the seventh grade students of SMPN 1 KelumpangHilir in the academic year of 2014/2015. In this case, there are six classes, the total number of population from six classes is

182 students. The information of total number of the seventh grade students of SMPN 1 KelumpangHilirSerongga is shown in Table 3.2.

**Table 3.2 The Population of The Research**

No	Classes	Number of Students
1	A	29
2	B	30
3	C	32
4	D	32
5	E	31
6	F	28
<b>Total</b>		<b>182</b>

(Source: Documents of SMPN 1 KelumpangHilir)

## 2. Sample

The sample of the research was the students of class A until F of SMPN 1KelumpangHilir. The writer intentionally took classes which thewriter teaches. The writer took 10 students in class A and B, and 30 students in class C until F. So, the total number of the sample is 40

students and they were divided into two groups. One was the experimental class and the other was the control class. 20 students of group A for experiment class using mind mapping and 20 students of group B for control class is not using mind mapping in learning vocabulary. The sample of the research can be seen in Table 3.3 below:

**Table 3.3 The Sample of The Research**

No	Group	Number of Students
1	X <sub>1</sub> (Experimental)	20
2	X <sub>2</sub> ( Control )	20
<b>TOTAL</b>		<b>40</b>

The Students' Sample of The Research can be seen in Table 3.4 below:

**Tabel 3.4 The Student's Sample of The Research**

No	Classes	Number of Students
1	A	10
2	B	6
3	C	6
4	D	6

5	E	6
6	F	6
<b>Total</b>		<b>40</b>

The writer compared the achievement of pre-test and post-test to identify the effectiveness of using mind mapping in teaching vocabulary. This research uses a cluster random sampling to choose the sample of the research. This technique of sampling was chosen under the following considerations:

- a. It is very difficult to list all the students of a class of the school.
- b. The population was classified by the result of IQ into students with high IQ and students with low IQ.

### **E. Techniques of Data Collecting**

The techniques for data collecting that used in this study are observation, Test, interview and documentary.

#### 1. Observation

In the research, the writer visited the classes that would be researched and search about students in which class would be given mind mapping technique.

#### 2. Test ( pre-test and post-test )

The writer used a written test to know the effectiveness of using mind mapping in developing students' vocabulary. A test is a short examination of knowledge that consists of questions that must be answered. The writer gave the written test to measure the students' vocabulary. Brown (2004:30) gave his statement that a test, in simple terms, is a method of measuring a person's ability, knowledge, or performance in a given domain. The tests in this research would be divided into two sections. They were:

a. Pre-test

Pre-test would be done in the beginning of the research before giving treatments as the first step in collecting data. The purpose of this test was to know how far students mastered vocabulary before applying mind mapping method as a teaching strategy in vocabulary.

b. Post-test

Post-test would be given at the end of the research. It was conducted to measure the students' ability after treatments. The result of the test would be analyzed to measure the improvement of students' ability in vocabulary.

c. Interview

Interview is used to complete the data. The writer interviews directly that related with people such as students, English teacher and headmaster.

d. Documentary

Documentary is used to get the information about students in SMPN 1 Kelumpang Hilir.



## F. Technique of Data Analysis

The data collected were analyzed through three steps; namely: (1) individual scores, (2) conversion of percentage range and (3) comparative technique.

### 1. Individual Scores

The formula is used to know the individual score;

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

Where:

X = Result of English Vocabulary Scores

R = The Total Number of Correct Answers

N = The Total Number of Items

### 2. Conversion of Percentage Ranges

**Table 3.5 Conversion of Percentage Ranges**

Percentage Ranges	Level
90-100	Excellent
80-89	Very Good
70-79	Good

60-69	Fair
50-0	Poor

### 3. Comparative technique

The comparative technique of analysis technique to evaluate the differences between two variables that are examined statistically. A comparative technique is used to know whether or not using mind mapping technique effective in developing students' vocabulary mastery.

The writer used test to find out the effectiveness of using mind mapping in developing students' vocabulary mastery with compared of the students' vocabulary achievement using mind mapping and the students' achievement without mind mapping.

The result of pre-test and post-test compared by using "t" test formula to count the t-value and proving whether the result showed significant increase in student's vocabulary mastery or not. Here is the formula of the t-test.

The formula is as follow;

$$t_o = \frac{M_{D1} - M_{D2}}{SE_{M_{D1}} - SE_{M_{D2}}}$$

Where:

$M_{D1}$ = Mean of difference of Experimental Class

$M_{D2}$ = Mean of difference of Controlled Class

$SE_{M_{D1}}$  = Standard Error of Experimental Class

$SE_{M_{D2}}$  = Standard Error of Controlled Class

Murdan (2006, p.171) stated that the result of “t” test would show whether there is significant increase in students’ vocabulary mastery in post-test after pre-test and do the treatment. The criteria is:

- If t-value achieved is higher than the t-value in the  $t_{table}$  either at significance 5% or 1% it means there is significance influence between the mean of pre-test and post-test in experimental class and control class.
- If t-value achieved lower than the t-value in the  $t_{table}$  in both significance 5% or 1% it means there no significant influence between the mean of pre-test and post-test in experimental class and control class.

## CHAPTER 1V

### FINDING AND DISCUSSION

#### A. Finding of the Research

##### 1. The Students' Pre-test and Post-test Scores in the Experimental Class

###### a. Individual score

Here the individual score of the data taken from the student towards the pre-test and post test in the experimental class.

The test items in the post-test were exactly the same as the ones that were given in the pre-test. The average pre-test score of the students in the experimental class was 52. It was found out that the lowest score was 13 reached by one student and the highest score was 77 reached by one student. Meanwhile, the average post-test score of the students in the experimental class after do the treatment was 86. It was found out that the lowest score was 60 reached by one student and the highest score was 100 reached by two students. The data distribution of the students' pre-

test and post-test scores in the experimental class can be seen in Table

4.1 below:

**Table 4.1 The Individual Students' Scores of The Experimental Class**

<b>No</b>	<b>Name</b>	<b>Pre-test (X)</b>	<b>Post-test (Y)</b>
1	SIM	57	100
2	DR	53	93
3	DAM	70	93
4	NH	60	93
5	ASM	70	100
6	YF	47	90
7	LOT	40	97
8	SM	37	83
9	EA	77	97
10	DG	73	90
11	MD	50	77
12	MRS	63	83
13	MDW	43	70
14	WWN	47	77

15	TM	<b>73</b>	<b>87</b>
16	DOI	<b>53</b>	<b>87</b>
17	AS	<b>53</b>	<b>93</b>
18	VFH	<b>37</b>	<b>73</b>
19	NM	<b>33</b>	<b>70</b>
20	YR	<b>13</b>	<b>60</b>

b. Conversion of Percentage Ranges

The table below shows the students' score of experimental class in post-test, It was found out that the students who got score 90-100 reached by ten students (50%) in excellent level, students' scores 80-89 reached by six students (30%) in very good level, students' scores 70-79 reached by five students in good level, and students acquire score 60-69 is gotten by one student (5%) in fair level. The data percentage the students' post-test scores and classification of students level in vocabulary mastery in post-test of experimental class can be seen in Table 4.2 and 4.3 below:

**Table 4.2 The Percentage Students' Scores of The Experimental Class in The Post-Test.**

<b>No</b>	<b>Students' Scores (Y)</b>	<b>Frequencies (f)</b>	<b>Percentage (%)</b>
1	60	1	5
2	70	2	10
3	73	1	5
4	77	2	10
5	83	2	10
6	87	2	10
7	90	2	10
8	93	4	20
9	97	2	10
10	100	2	10
	<b><math>\Sigma Y = 1713</math></b>	<b>N=20</b>	<b><math>\Sigma P=100</math></b>

**Table 4.3 Classification of Students Level in Vocabulary Mastery in Post-Test of The Experimental Class**

Level	Score	Sum of students' vocabulary mastery	
		Frequency	Percentage
Excellent	90-100	10	50%
Very good	80-89	6	30%
Good	70-79	5	25%
Fair	60-69	1	5%
Total		<b>N=20</b>	<b><math>\Sigma P=100</math></b>

c. Description of the data

Here the description of the data taken from the student towards the pre-test and post test in the experimental class can be seen in Table 4.4 below:

**Table 4.4 The Test Scores of The Experimental Class**

No	Pre-test (X <sub>1</sub> )	Post-test (Y <sub>1</sub> )	D=X-Y	D <sub>1</sub> = (X - Y) <sup>2</sup>
1	57	100	-43	1849
2	53	93	-40	1600
3	70	93	-23	529
4	60	93	-33	1089

(Continue to....)



**Continuation of Table 4.4**

5	70	100	-30	900
6	47	90	-43	1849
8	37	83	-46	2116
9	77	97	-20	400
10	73	90	-17	289
11	50	77	-27	729
12	63	83	-20	400
13	43	70	-27	729
14	47	77	-30	900
15	73	87	-14	196
16	53	87	-34	1156
17	53	93	-40	1600
18	37	73	-36	1296
19	33	70	-37	1369
20	13	60	-47	2209
$\Sigma$	$\Sigma X_1 = 1049$	$\Sigma Y_1 = 1713$	$\Sigma D = - 664$	$\Sigma D^2 = 24454$

- 1) Determining Mean of pre-test and post-test score of experimental class

$$\begin{aligned}
 M_{X_1} &= \frac{\Sigma X}{N} \\
 &= \frac{1049}{20} \\
 &= 52.45
 \end{aligned}$$

$$\begin{aligned}
 M_{Y_1} &= \frac{\sum Y}{N} \\
 &= \frac{1713}{20} \\
 &= 85.65
 \end{aligned}$$

2) Analysis of Data

a) Determining Mean of difference of experimental class

$$\begin{aligned}
 M_{D1} &= \frac{\sum D}{N} \\
 &= \frac{664}{20} \\
 &= 33.2
 \end{aligned}$$

b) Determining Deviation Standard of difference of experimental class

$$\begin{aligned}
 SD_{D_1} &= \sqrt{\frac{\sum D^2}{N} - \frac{(\sum D)^2}{(N)}} \\
 &= \sqrt{\frac{24454}{20} - \frac{(-664)^2}{(20)}} \\
 &= \sqrt{1222.7 - (33.2)^2} \\
 &= \sqrt{1222.7 - 1102.24} \\
 &= \sqrt{120.46} \\
 &= 10.98
 \end{aligned}$$

- c) Determining Standard error from Mean of difference of experimental class.

$$\begin{aligned}
 SEM_{D1} &= \frac{SD_{D1}}{\sqrt{N-1}} \\
 &= \frac{SD_{D1}}{\sqrt{19}} \\
 &= \frac{10.98}{4.35} \\
 &= 2.52
 \end{aligned}$$

## 2. The Students' Pre-test and Post-test Scores in the Control Class

### a. Individual score

Here the individual score of the data taken from the student towards the pre-test and post test the control class.

In the control class, the average pre-test score of the students in the control class was 57. It was found out that the lowest score was 37 reached by one student and the highest score was 80 reached by one student. Meanwhile, the average post-test score of the students in the control class without treatment was 78. It was found out that the lowest score was 63 reached by one student and the highest score was 100 reached by one student. The data distribution of the students' pre-test and post-test scores in the control class can be seen in Table 4.5 below:

**Table 4.5 The Students' Scores of The Control Class**

<b>No</b>	<b>Name</b>	<b>Pre-test (X)</b>	<b>Post-test (Y)</b>
1	MNT	67	83
2	AR	63	97
3	MAW	53	73
4	RSW	73	93
5	RA	80	100
7	LM	40	80
8	MU	50	70
9	DPS	67	77
10	DFIL	53	77
11	DNH	67	83
12	RH	53	63
13	BI	43	80
14	MSA	43	70
15	WAS	37	70
16	APA	67	73
17	RBH	57	73
18	CRI	50	73
19	ARP	67	70
20	AS	60	70

b. Conversion of Percentage Ranges

The students' score of control class in post-test, was found out that the students who got score 90-100 reached by four students (20%) in excellent level, students' scores 80-89 reached by four students (20%) in good level, students' scores 70-79 reached by eleventh students in good level, and student acquire score 60-69 is gotten by one student (5%) in fair level. The data percentage the students' post-test scores in control class and classification of students level in vocabulary mastery in post-test can be seen in Table 4.6 and 4.7 below:

**Table 4.6 The Percentage Students' Scores of The Control Class in The Post-Test**

No	Students' Scores (Y)	Frequencies (f)	Percentage (%)
1	63	1	5
2	70	5	25
3	73	4	20
4	77	2	10
5	80	2	10
6	83	2	10
7	93	2	10
8	97	1	5
9	100	1	5
<b><math>\sum Y = 1568</math></b>		<b>N=20</b>	<b><math>\sum P=100</math></b>

**Table 4.7 Classification of Students Level in Vocabulary Mastery in Post-Test of The Control Class**

Level	Score	Sum of students' vocabulary mastery	
		Frequency	Percentage
Excellent	90-100	4	20%
Very good	80-89	4	20%
Good	70-79	11	55%
Fair	60-69	1	5%
Total		<b>N=20</b>	<b><math>\sum P=100</math></b>

c. Description of the data

Here the description of the data taken from the student towards the pre-test and post test in the control class can be seen in Table 4.8 below:

**Table 4.8 The Test Score of The Control Class**

No	Pre-test ( $X_2$ )	Post-test ( $Y_2$ )	$D=X-Y$	$D_2=(X-Y)^2$
1	<b>67</b>	<b>83</b>	<b>-16</b>	<b>256</b>
2	<b>63</b>	<b>97</b>	<b>-34</b>	<b>1156</b>
3	<b>53</b>	<b>73</b>	<b>-20</b>	<b>400</b>

(Continue to....)

Continuation of Table 4.8

4	73	93	-20	400
5	80	100	-20	400
7	40	80	-40	1600
8	50	70	-20	400
9	67	77	-10	100
10	53	77	-24	576
11	67	83	-16	256
12	53	63	-10	100
13	43	80	-37	1369
14	43	70	-27	729
15	37	70	-33	1089
16	67	73	-6	36
17	57	73	-16	256
18	50	73	-23	529
19	67	70	-3	9
20	60	70	-10	100
$\Sigma$	$\Sigma X_2 = 1143$	$\Sigma Y_2 = 1568$	$\Sigma D = -425$	$\Sigma D^2 = 11361$

- 1) Determining Mean of pre-test and post-test score of control class

$$\begin{aligned}
 M_{X_2} &= \frac{\Sigma X}{N} \\
 &= \frac{1143}{20} \\
 &= 57.15
 \end{aligned}$$

$$\begin{aligned}
 M_{Y_2} &= \frac{\sum Y}{N} \\
 &= \frac{1568}{20} \\
 &= 78.4
 \end{aligned}$$

2) Analysis of Data

a) Determining Mean of difference of controlled class

$$\begin{aligned}
 M_{D_2} &= \frac{\sum D}{N} \\
 &= \frac{425}{20} \\
 &= 21.25
 \end{aligned}$$

b) Determining Deviation Standard of difference of controlled class

$$\begin{aligned}
 SD_{D_2} &= \sqrt{\frac{\sum D^2}{N} - \frac{(\sum D)^2}{(N)}} \\
 &= \sqrt{\frac{11361}{20} - \frac{(-425)^2}{(20)}} \\
 &= \sqrt{568.1 - (21.3)^2} \\
 &= \sqrt{568.1 - 451.6} \\
 &= \sqrt{116.5} \\
 &= 10.79
 \end{aligned}$$



- c) Determining Standard error from Mean of difference of controlled class

$$\begin{aligned}
 SEM_{D2} &= \frac{SD_{D2}}{\sqrt{N-1}} \\
 &= \frac{SD_{D2}}{\sqrt{19}} \\
 &= \frac{10.79}{4.35} \\
 &= 2.48
 \end{aligned}$$

### 3. Analysis of the Data

After gaining the result of the post-test in the experimental class and control class, the writer started to analyze them by t-test. The writer calculated the t-test to find out whether using mind mapping technique is effective or not in developing students' vocabulary and to know if there is any significant difference between students' vocabulary mastery by using mind mapping and without using mind mapping to the seventh grade students of SMPN 1 Kelumpang Hilir.

- a. Determining standard error of difference between experimental class and control class

$$\begin{aligned}
 SEM_{D1-D2} &= \sqrt{SEM_{D1}^2 + SEM_{D2}^2} \\
 &= \sqrt{2.52^2 + 2.48^2} \\
 &= \sqrt{6.35 + 6.15} \\
 &= \sqrt{12.5} \\
 &= 3.53
 \end{aligned}$$

- b. Determining t-observation ( $t_o$ )

$$\begin{aligned}
 t_o &= \frac{M_{D1} - M_{D2}}{SEM_{D1} - SEM_{D2}} \\
 &= \frac{33.2 - 21.25}{3.53} \\
 &= \frac{11.95}{3.53} \\
 &= 3.38
 \end{aligned}$$

- c. Determining t-table ( $t_t$ ) in significance level 5% and 1% with degree of freedom (df)

$$\begin{aligned}
 df &= (N1 + N2) - 2 \\
 &= (20 + 20) - 2 \\
 &= 40 - 2 \\
 &= 38
 \end{aligned}$$

See the table of “t” values of degree of freedom (df) = 38 at significance level 5% and 1 %.

$$t_{table} (t_t) \text{ at significance level } 5\% = 2.02$$

$$t_{table} (t_t) \text{ at significance level } 1\% = 2.71$$

$$5\% = t_o > t_t = 3.38 > 2.02$$

$$1\% = t_o > t_t = 3.38 > 2.71$$

#### 4. Test of Hypothesis

- a. If  $t_o > t_t$ , it means that Null Hypothesis ( $H_0$ ) is rejected and Alternative Hypothesis ( $H_a$ ) is accepted. Thus, there is positive significant difference between the teaching vocabulary using Mind Mapping.
- b. If  $t_o < t_t$ , it means that Null Hypothesis ( $H_0$ ) is accepted and Alternative Hypothesis ( $H_a$ ) is rejected. Thus, there is no positive significant difference between the teaching vocabulary using Mind Mapping.

From the result of statistic calculation, it was found out that the value of t-observation was 3.38 and the value of t-table significance level of 5% was 2.02 and significance level of 1% was 2.71 with the degree of freedom (df) = 38. The result of t-observation (3.38) indicates that  $H_0$  is rejected and consequently the  $H_a$  is accepted.

In the simply resume, the result my be formulate as follows:

$$t_o > t_t = 3.38 > 2.02 \text{ in significance level } 5\%$$

$$t_o > t_t = 3.38 > 2.71 \text{ in significance level } 1\%$$

$$\text{Thus, } t_o > t_t = 2.71 < 3.38 > 2.02.$$

The result of statistic calculation indicates that  $t_o > t_t$  in 5% and 1% significant level. The t-value achieved in the  $t_o$  is higher than the t-value in the  $t_{table}$ , either at significance 5% or 1%, that is  $2.71 < 3.38 > 2.02$ . It means that, there is significance influence between the mean of pre-test and post-test in experimental class and control class and there is obvious difference between teaching vocabulary using mind mapping in experimental class and without using mind mapping control class the seventh grade students of SMPN1 KelumpangHilir.

## B. Discussion of the Research

Based on the finding in this research, the writer interprets that teaching vocabulary using mind mapping technique is more effective than teaching vocabulary without using mind mapping to the seventh grade students of SMPN 1 Kelumpang Hilir.

The positive contribution of mind mapping technique towards the students' vocabulary mastery can be seen from the gained score before and after the treatment is given. In the pre-test the highest score 77 while the lowest one is 13. The mean of pre-test is 52.45. While in the post-test, the highest score achieved by the students is 100, but the lowest score is gained 60. The mean of post-test is 85.65. It shows that post-test English vocabulary is higher than pre-test English vocabulary. It means that most of the students can accept the treatment that is given and then it influences to the students in mastering the English vocabulary. After the treatment, the students' achievement vocabulary improved. This condition means that teaching vocabulary through mind mapping technique could improve their vocabulary mastery. However, the writer concludes that mind mapping technique can give a positive contribution towards the students' vocabulary mastery.

Furthermore, the result of the teaching showed that there is a difference achievement on the experimental and control class. The mean difference of two classes in post-test was  $85.45 - 78.4 = 7.05$ . The result of statistic calculation of t-test formula was 3.38 and it is higher than the t-critical value (2.02) at significance level of 5%. So,  $t_o > t_t$  it shows that there is a significant difference

between the students who were taught by using mind mapping technique and those who were not.

The treatment that was given to the students in the experimental class could influence their ability in vocabulary mastery from the enough level to the good level. It shows that teaching vocabulary using mind mapping is more effective than without using mind mapping.

In this case, students' improvement in vocabulary, of course is influenced by several factors. Firstly, the use of mind-mapping technique can make creative note in learning English. Mind map is a note-taking method that uses some instruments such as blank paper, colors' pen, draw image and connect with the lines. So, they feel not bored along learning English. The second is students' interest in participant during learning process. In addition, teacher should give more support to build students' confidence in learning English. Finally, mind mapping can be used as one of the technique in teaching vocabulary at SMPN 1 Kelumpang Hilir.

## CHAPTER V

### CLOSURE

#### A. CONCLUSIONS

1. Based on the analysis of the data in this research, it can be concluded that there is a significant difference between the students' vocabulary achievement taught by using mind mapping technique in the experimental class and without using mind mapping in the control class. The differences of scores in the experimental and control classes were verified through the t-test. The significant difference between the two classes can be seen from the t-observation ( $t_o$ ) and  $t_{table}$  ( $t_t$ ) and means of the two classes. From the data analysis, the result of the calculation of the t-test formula at the level of significance 5%, is got  $t_o$  is higher than  $t_{table}$  2.02, that is  $t_o = 3.38 > t_{table} = 2.02$ . The mean score of the students taught using mind mapping is 85.65 and the mean score of the students taught without using mind mapping is 78.4.
2. Teaching vocabulary using mind mapping technique is effective to the seventh grade students of SMPN 1 Kelumpang Hilir. It can be seen from the students' vocabulary mastery by using mind mapping technique is higher than the students' vocabulary mastery without using mind mapping.

## **B. SUGGESTIONS**

From the conclusion above, the writer would like to offer some suggestion to be considered by English teachers, students, and the next researches.

### 1. For English teachers

- a. English teachers should be able to create relaxed atmosphere in the process of teaching and learning of vocabulary in the classroom
- b. English teachers should be more creative to use various methods, so that the students will not get bored and interested in learning vocabulary. The teachers should also give students motivation to learn English seriously.

### 2. For the Students

- a. The students should pay attention to the teacher' explanation about the lesson and participate in the knowledge of learning vocabulary through mind mapping technique.
- b. The students have to Practice their vocabulary in written and oral communication, because it can help them enrich their vocabulary.
- c. The students should be more active in teaching learning process. They should study continually in the classroom and in their house. They don't need to be afraid to study English. Mind mapping can help students to express their creativity and memory about something.



3. For the next Researchers

- a. Hopefully, the other researcher can take several advantages from this research. Based on the description above, the writer would like to suggest the other researchers that the result of this experimental research can be used as additional reference for the next research.

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