

**COMPARATIVE STUDY OF STUDENTS' VOCABULARY ACHIEVEMENT  
BETWEEN THOSE WHO ARE TAUGHT THROUGH SPELLING PUZZLE AND  
THROUGH CROSSWORD PUZZLE AT THE FIRST GRADE STUDENTS OF  
SMP MUHAMMADIYAH 3 BANDAR LAMPUNG**

**(A Script)**

**By**

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**FACULTY OF TEACHER TRAINING AND EDUCATION  
LAMPUNG UNIVERSITY  
BANDAR LAMPUNG  
2017**

## **ABSTRACT**

### **COMPARATIVE STUDY OF STUDENTS' VOCABULARY ACHIEVEMENT BETWEEN THOSE WHO ARE TAUGHT THROUGH SPELLING PUZZLE AND THROUGH CROSSWORD PUZZLE TECHNIQUES AT THE FIRST GRADE OF SMP MUHAMMADIYAH 3 BANDAR LAMPUNG**

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The objectives of this research were to find out whether spelling puzzle technique was more effective to increase students' vocabulary achievement than crossword puzzle technique; and to investigate students' responses toward the application of those techniques. This research is a basically quantitative research which used a pre-test and post-test experimental group design.

The population of this research was the first grade students of SMP Muhammadiyah 3 Bandar Lampung in the second semester of academic year 2016/2017. The research took two classes as the sample and they were 7D which consisted of 33 students and 7E which consisted of 35 students. A pre-test, post-test and questionnaire were applied to collect the data. The data were analyzed by using independent group T-test in which the significance was determined by  $p < 0.05$ .

The result of this research showed that in the Experimental Class 1 the mean score of post-test (80.91) was higher than the pre-test (68.79) and the gain was 12.12 meanwhile in the Experimental Class 2 the mean score of post-test (72.93) was higher than the pre-test (58.78) and the gain was (14.15). It means that there was an improvement in vocabulary achievement in learning English and spelling puzzle technique is more effective in teaching vocabulary than that of crossword puzzle. Briefly, referring to the result above, it can be said that spelling puzzle and crossword puzzle techniques can be applied to improve students' vocabulary achievement.

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**By:**

**Mei Ayu Hanifah**

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**The Language and Arts Education Department of  
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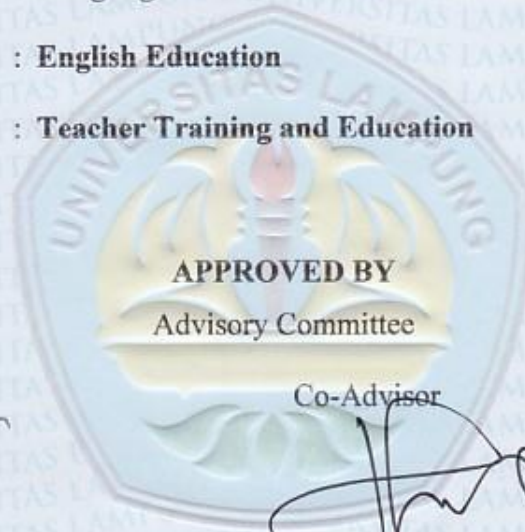
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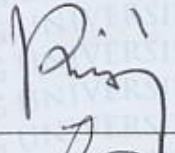

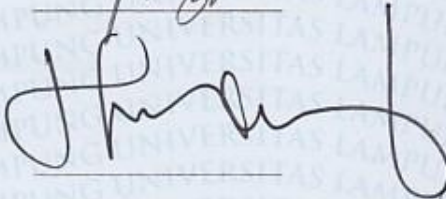
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## **CURRICULUM VITAE**

Mei Ayu Hanifah was born in Way Abung on Mei 12<sup>th</sup>, 1994. She is the first child from the lovable couple, Sukismadi and Murniati. She has two younger brothers, Ahmad Khusaini and Alif Nur Fadilah.

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## **DEDICATION**

*By the name of Allah, who blesses my life until an unspecified time, this script is proudly dedicated to:*

The spirit of my life: Sukismadi and Murniati

My two knights: Ahmad Khusaini and Alif Nur Fadilah

My awesome partners and my mood boosters

My Friends of English Department 2013

My almamater, Lampung University



**MOTTO**

**And your lord is going to give you, and you  
will be satisfied.**

*(Ad-Dhuha: 5)*

**Do your best and let God do the rest.**

*(Anonymous)*

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This script is far from being perfect, but it is expected that this script will be useful not only for the researcher but also the readers. For this reason, constructive thoughts, suggestions and critics are welcome to make this script better.

Bandar Lampung, 09<sup>th</sup> August 2017  
The Writer,

Mei Ayu Hanifah

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## **I. INTRODUCTION**

This chapter presents background of the problem, research questions, objectives of the research, uses of the research, scope of the research, and definition of terms clarified like the following.

### **1.1. Background of the Problem**

English has been considered as an essential language to be learnt in order to meet the communication needs in this globalization era. Indonesia has organized English to be taught in formal school as a compulsory subject. As stated in the standard of content by Kemendikbud 2013, the teaching of foreign language, specifically English, is aimed to develop students' ability to communicate with global society. Therefore, it is taught in different kinds of grade levels. The teaching includes the teaching of the four skills, listening, speaking, reading, and writing. Vocabulary is one of crucial aspects to support those skills. As stated by Richards and Renandya (2002), vocabulary is a core component of language proficiency and provides much of the basis of how well learners listen, speak, read and write.

Knowledge about vocabulary is important. Students will get their success in mastering English if they have some number of vocabularies. If students have some number of vocabularies they will easily express their emotion, ideas and expression. They will be able to make a sentence to build some kinds of texts in

English. According to Edward (2006), students with a small vocabulary also read slowly because they do not understand many words or have to stop reading and look up for the words in dictionary.

The vocabulary achievement will affect someone's ability in using the language either in spoken or written form. Learner, who just learns grammar without vocabulary will find it hard to convey what they want to say, they will get difficulties in understanding the text, will not be able to speak English, and it will be hard for them to express or write their own idea. Hammer (2001) states learner who just learns vocabulary or just reads a text or looks up dictionary will be able to say something.

As stated by Wilkins in Thornbury (2002), without grammar very little can be conveyed, without vocabulary nothing can be conveyed. It tells us that if someone wants to be able to convey meaning they need vocabulary. Although someone has known sentence structures but if they do not master vocabulary, they will remain unable to say or write anything and the grammar knowledge will be useless. Thus, by improving vocabulary, it will be a basic for someone to communicate well.

The researcher assumed that the students' learning vocabulary development, especially junior high school students, is somewhat causing apprehension. During the observation in the field practice program around July to August 2016, the researcher found out that students of MTs Maftahul Choiriah, Central Lampung were still considered having difficulties in vocabulary achievement. They got some difficulties to write some sentences in English because they lack of vocabulary. They often look up the dictionary to find some words in English, and

they cannot memorize the words well. Meanwhile, in an interview conducted in SMP Muhammadiyah 3 Bandar Lampung, it was found that the students' vocabulary achievement was insufficient. The report of students' score result showed that their average score was 55 and it was below the average score of minimum criterion of completeness or KKM (70). Furthermore, they were also asked to read some English texts from their handbooks. It was also found that most of them frequently consulted their dictionary while they were reading the text.

The students could not do the reading exercise well because they lack of vocabulary. Most of them got difficulties in understanding the content of the text. They spent a long time to consult the dictionary to get the meaning of most of the words in the text. It is such a waste of time so that the students could not answer all of the questions. It also happened in speaking, most of the students were reluctant to speak because of their limited number of vocabularies.

The problems are related to the teaching technique, the teacher only applies a monotonous traditional technique that is to translate words isolation from English into Indonesian. In the beginning of each meeting the teacher wrote ten words on the board and the students were asked to translate into Indonesian. The students sometimes find it hard and they also discourage in learning vocabulary. The students are also rarely given chances to practice the words that had been given in other activities. They learn the words naturally at the different opportunity of teaching-learning. Therefore, they merely know the words meaning and forget the words easily.

The teacher should make learning vocabulary more effective and efficient. It is not enough for the teacher of English to give the students words to memorize. They have to use other alternative ways to increase students' vocabulary. To solve this problem, of course, the creativity of teachers in choosing a technique is needed. The technique which is used by the teacher can make students interested in learning. The teacher must apply an interesting technique in teaching learning process that can make students acquire new vocabulary easily. For this reason, the researcher used a game to motivate the students in learning English vocabulary. Game is one of techniques that can make students feel interested in learning. The students can do both learning new vocabulary and playing game at the same time. In addition, games are helpful because they can make students feel that certain words are important and necessary (Allen: 1983). Without those words, the students cannot finish the game.

Hurwitz (1969) states that game awaken the student eagerness to learn, to think, to imagine, to listen, to create and to express their ideas. So, the lesson will be absorbed more easily because they are involved in the activities directly because game gives a pleasant variation in learning. There are many games that can be used as a technique in teaching language, such as Scrabble, Hung Man, Crossword Puzzle, Spelling Puzzle and many others. In this research, the researcher focused on two kinds of games related to vocabulary, namely Spelling Puzzle and Crossword Puzzle. The researcher decided to use Spelling Puzzle and crossword to help the students to increase their vocabulary achievement. As stated by Tarigan (1986), puzzles are a kind of games done by filling the blank form scrambled letter forming words and contains of some picture as the answer of the

question given. The game aims to train vocabulary achievement. Dhand (2008: 55-56) explains different kinds of benefits for using Crossword Puzzles, it is as a fun activity and raises students' motivation.

Referring to the background stated above, the researcher focused the research on teaching vocabulary by using Spelling Puzzle and Crossword Puzzle as a technique in teaching vocabulary. It is expected that the teaching learning process through Spelling Puzzle and Crossword Puzzle technique can increase the students' vocabulary achievement.

## **1.2. Research Questions**

Based on the background above, the research questions of this research are:

1. Is there any significant difference in students' vocabulary achievement between those who are taught through Spelling Puzzle and Crossword Puzzle techniques at the first grade of SMP Muhammadiyah 3 Bandar Lampung?
2. Which one between Spelling Puzzle and Crossword Puzzle techniques is more effective to increase students' vocabulary achievement at the first grade students of SMP Muhammadiyah 3 Bandar Lampung?
3. What are students' responses toward the application of Spelling Puzzle and Crossword Puzzle techniques at the first grade students of SMP Muhammadiyah 3 Bandar Lampung?

### **1.3. Objectives of the Research**

Based on the research questions above, the objectives of this research are:

1. To find out whether there is a significant difference in students' vocabulary achievement between those who are taught through Spelling Puzzle and Crossword Puzzle techniques at the first grade of SMP Muhammadiyah 3 Bandar Lampung.
2. To find out which one of the two techniques, Spelling Puzzle and Crossword Puzzle is more effective to increase students' vocabulary achievement .
3. To investigate students' responses toward the application of Spelling Puzzle and Crossword Puzzle techniques.

### **1.4. The Uses of the Research**

The results of this research are expected to be beneficial as follows:

1. Practically

The researcher expects that the result of the research may be useful for:

- a. The teacher

The finding of the research can be used by the teacher to increase the students' vocabulary in teaching learning process either through Spelling Puzzle or Crossword Puzzle techniques.

- b. The student

The finding of this research can help the students to increase their vocabulary.

- c. The researcher

The finding of this research can improve knowledge and to be an experience for the researcher.

2. Theoretically, this research can be a reference for other writers in their future researches.

### **1.5. Scope of the Research**

This research is a quantitative research which was conducted by giving the pre-test and post-test to analyze how significant the improvements of the students' vocabulary achievement after the implementation of Spelling Puzzle and Crossword Puzzle as the media of learning English.

This research was administered at Grade VII of SMP Muhammadiyah 3 Bandar Lampung. The material given was based on KTSP Curriculum of Junior High School. In this research, the researcher focused on the implementation of Spelling Puzzle and Crossword Puzzle as the media of teaching English. The test of try-out, pre-test, and post-test were made based on indicators in the curriculum, which require students to be able to identify a noun, verb, adverb and adjective.

### **1.6. Definitions of Terms**

In order to avoid misunderstanding, definitions of terms are explained as follows:

**Vocabulary** is a list of words and phrases that are usually alphabetically arranged or definition (Longman, 1974).

**Vocabulary Achievement** is the increase of the students' vocabulary that was achieved after being taught through extensive reading that can be seen from the result of pretest and posttest (Panjitam, 2016).

**Comparative** is the process of comparing information Spelling Puzzle and Crossword Puzzle technique in order to find out whether there is a significant

difference between them or not in students' vocabulary achievement. (Amsiana, 2014)

**Spelling Puzzle** is a puzzle that contains of some pictures and scramble letters to be paired into the correct words (Tarigan, 1986).

**Crossword Puzzle** is a puzzle with sets of squares to be filled in with words/ numbers, one letter/ number to each square. (Dhand, 2008)

**Technique** is a logical and rational procedure for designing a circuit component that relate to one another with a view to function as a whole in order to achieve the goal that has been set (Havery, 2000)



## **II. THEORETICAL FRAMEWORK**

This chapter provides some theories related to review of previous research, review of related literature (which consists of concept media in language teaching, concept of puzzle, concept of Spelling Puzzle, concept of Crossword Puzzle, concept of vocabulary, concept of achievement, concept of teaching, teaching vocabulary through Spelling Puzzle and teaching vocabulary through Crossword Puzzle), advantages and disadvantages of puzzle, theoretical assumption and hypothesis.

### **2.1. Review of Previous Research**

There are at least five researches which have focused on increasing students' vocabulary achievement through puzzle technique. Some previous researchers have conducted their research on the use of various methods or ways in teaching vocabulary by some puzzle methods.

Damayanti (2014) conducted her research entitled “Teaching Vocabulary through Word Search Puzzle to the Fifth Grade Students of SDN 01 Ngaglik Blitar in the Academic Year 2013/2014”. The objective was concerned to know the students' mastery on vocabulary after applying the word search puzzle game. The research reports that there was significant effect of using word search puzzle technique on

students' achievements in vocabulary. It can be concluded that word search puzzle technique is suitable technique to improve students' achievements in vocabulary at fifth grade of SDN 01 Ngaglik, Blitar.

Utami (2014) conducted her research entitled "Improving students' vocabulary mastery by using Crossword Puzzle for grade VII of SMP N 2 Srandakan in the academic year of 2013/2014". This study was aimed at improving the vocabulary mastery through the use of Crossword Puzzles among grade VII students of SMP 2 Srandakan in the academic year of 2013/2014. The result of this study concluded that there were improvements of students' vocabulary mastery. It could be seen from the result of classroom observation that showed the students' better performance of using vocabulary during the teaching and learning process. The students' involvement during the implementation of Crossword Puzzle was also better than before the implementation.

Orawiwatnakul (2013) conducted his research entitled "Crossword Puzzles as a Learning Tool for Vocabulary Development". This study was conducted to examine the effects of Crossword Puzzles on vocabulary acquisition of first-year students. The findings revealed that the students' overall post-test score was higher than their pre-test score at a significance level of .05. Crossword Puzzles can help students improve vocabulary knowledge.

Rosnelly (2010) conducted her research entitled "The Use of Crossword Puzzle Technique to Improve Student' Vocabulary of the Fifth Year Student at SDN 015 Rumbai Pekanbaru". The aim of this research was to find out the improvement of teaching English by using Crossword Puzzle to improve students' vocabulary

mastery while having fun without releasing it. The research reported that there are improvements of students' vocabulary in the first meeting until fourth meeting in the treatment. It proves that the use of Crossword Puzzle is affective technique to improvement students' vocabulary.

Another related research on the use of the Crossword Puzzle to improve vocabulary mastery was done by Lesmono (2010). Entitled, "Using Crossword Puzzles to Improve the Vocabulary Mastery of the First Grade Student at SLTP 1 Tanjungsari, Yogyakarta". Crossword Puzzle enabled the students to be more familiar with the words and memorized the words easily because they played Crossword Puzzle in the learning process. Playing Crossword Puzzle attend the words for several times.

The previous researches above are about increasing students' vocabulary through word search puzzle and Crossword Puzzle, but the researcher used another kind of puzzle to increase students' vocabulary which is Spelling Puzzle. The researcher used Spelling Puzzle instead of word search puzzle and Crossword Puzzle because Spelling Puzzle uses pictures as their keywords to help students to find out the word by constructing the scrambled words into the correct words. Meanwhile, word search puzzle and Crossword Puzzle do not provide pictures to help the student to find the words.

## **2.2. Media in Language Teaching**

The use of media is needed to ensure an effective communication in order to improve the quality of instruction. However, media offer some positive contributions toward the teaching and learning process. This parts deals with the

definition of media based on some experts and kinds of media in language teaching.

### **2.2.1. Definition of Media**

Media have undoubtedly always facilitated the tasks of language learning both instructed and non-instructed learners as a tool for language learning or teaching (Brinton: 2001). According to Smaldine, et al (2005) media can be defined as a mean of communication and sources of information. Media refers to anything that carries information between a source and a receiver for example video, television, diagrams, printed material, computer program, and instruction. Media provide message with an instructional purpose.

Another definition of media is proposed by Heinich in Arsyad (2002:4). He states that media act as mediator that transmits information from resource to receiver. From the explanation above, media can be defined as the aids or equipment that can help the learning process run well.

### **2.2.2. Kinds of Media**

In the previous section, it has been mentioned that media can support the teaching and learning process. It focuses on the process of communication between the students and the teacher. An effective communication during the teaching and learning depends on the purpose of the media used.

There are many kinds of media which can be used in the teaching and learning process. According to Brinton (2001), there are two big classifications of media used in the teaching and learning process. Those are non-technical media and technical media. Each part is presented below.

#### a. Non-technical Media

Non-technical media can be defined as the media which do not need electricity, technical resource, or funding. These media are low cost but available everywhere. There are several items that belong to this category, include black board/ white board, magnet board, flash card, board games, photos, cartoons/ line drawings and the like.

#### b. Technical Media

Although these forms of media are not low-cost and less user-friendly than the non-technical media, they deal with a larger degree of psychology reality in that they can bring the outside world in all its complexity into the classroom. In fact, since students in today's language classes tend to surround themselves with technology in their daily lives, they may grow to expect it in the language classroom as well. There are several items that belongs to this category include recorded player, filmstrip, audiotape player, film projector TV, and computer.

### **2.3. Puzzle in Language Teaching**

This parts deals with the definition of puzzle in language teaching based on the experts' opinions and kind of puzzle in language teaching.

#### **2.3.1. Definition of Puzzle**

According to Hornby (1995: 947), puzzle is a thing that is difficult to understand or answer a mystery or a question or toy that is designed to test a person's knowledge, skill, intelligence, etc.

A puzzle is a kind of teaching aid that can be applied in a classroom activity. Puzzles are vital part of teachers' equipment, not only for the language practice but also for the therapeutic effect they have. The statement point out two important functions of using puzzles in teaching and learning process. First, puzzle as a tool of teaching make teacher easier in presenting the material. Second, by engaging the students in a puzzle game will give them pleasure and kill students' boredom and laziness. This creates a good atmosphere in the classroom where the students pay more attention to the lesson. Therefore, this might motivate the students to sustain their interest in learning a language.

Concerning to the ideas above, it is clear that puzzle can be used as a teaching technique in order to make a lesson more interesting and exciting. Thus, this motivates and encourages students in learning English actively. This technique also serves to increase students' attention to the lesson, create a good atmosphere in the classroom and finally produce better learning.

### **2.3.2. Kinds of Puzzles**

Tarigan (1986) states in students generally liked and their games can understand and practice how to use words, puzzles, and crosswords puzzles, anagrams and palindrome. Here are some types of puzzles that can be used to improve the ability to understand the vocabulary:

1. Spelling Puzzle, the picture-puzzle consisting of pictures and letters to randomly pair into correct vocabulary.

2. Jigsaw puzzle, the puzzle in the form of some questions to be answered later on the answer. The puzzle was taken first letters strung together into a word which is the final answer.
3. The thing puzzle, the puzzle is a description sentences related to pictures of objects to match making.
4. The letter(s) readiness puzzle, the puzzle in the form pictures accompanied by letters of the name of the image, but the letter was not yet complete.
5. Crosswords puzzle, the puzzle in the form questions that must be answered by the words put into boxes available both horizontally and vertically.

In this research, the researcher applies two kinds of puzzles; they are Spelling Puzzle and Crossword Puzzle. This research compares the result of students' achievement after being taught through Spelling Puzzle and Crossword Puzzle. The students' result will show which one of those two puzzles is the best technique to increase students' vocabulary achievement..

#### **2.4. Spelling Puzzle**

Tarigan (1986) states Spelling Puzzle has been played a lot in classrooms. The basic game goes like this: the person in charge of Spelling Puzzle calling out the words can be the teacher or a student. When the first word is called out, the first person starts spelling it, saying only the first letter. The second person says the second letter and so on down the line. Whoever says the last letter of the word turns to the next person and says "sparkle" or any other word of your choosing, like "Whoo-hoo" or "Gotcha." The person who would have been next is out, because he or she got "sparkled".

The game continues with the leader calling out another word. Any time a student misspells a word, that student is out. Some teachers have a student sit down if they are not paying attention and do not know it is their turn or do not remember the previous letter. This helps improve listening skills.

In line with the theories, the researcher would like to do some modification of this Spelling Puzzle. The puzzle was mainly focused on vocabulary and spelling practice. The student filled the words in the clues and read the clues of the puzzle. The puzzles clues consisted of pictures and written clues for answering the puzzle. The puzzles consisted of sets of some squares with some jumbled words in the squares. First square was filled with the first correct letter and the last square was filled with the last correct number as an additional clue. After the student finished answering the puzzle they tried to spell the words one by one to check if their answers were correct or not based on the written clues and the picture given.

## **2.5. Crossword Puzzle**

Crossword Puzzle has been proposed as one of alternatives game in teaching learning. Dhand (2008: 55) defines a Crossword Puzzle as a puzzle with sets of squares to be filled in with words/ numbers, one letter/ number to each square. Synonyms or definitions of words are given with number corresponding to numbers in the squares. Letters/ words are fitted into a pattern of numbered squares in answer to clues.

According to Moursund (2007:8) Crossword Puzzle is a popular puzzle games which in every case, the puzzle-solvers' goal is to solve a particular mentally challenging problem or accomplish a particular mentally challenging task. In



referent from the statements above, Crossword Puzzle is a popular puzzle that has sets of grids to be filled with words or letters. It has become one of alternative puzzle in teaching-learning, including language learning. This puzzle is categorized into challenging puzzle.

This puzzle can be done in individual, in pair, or in groups. The teacher gives a copy of the Crossword Puzzle and explains the rules, such as students have to complete it as quickly as possible. For the individual puzzle, the student who can complete it first is the winner and gets a good point from the teacher. In pair work or group, the winner is the pair or group who can complete it first. All of the winners get prizes from the teacher. It makes this puzzle more attractive.

## **2.6. Vocabulary**

The goal of teaching and learning process is to enable the student to acquire the four language skills. They need lots of vocabulary because vocabulary has an important role in communication using target language.

### **2.6.1. Theoretical Description of Vocabulary**

Vocabulary consists of words that construct a language. Jackson (2000:11) argues that term vocabulary, lexis and lexicon are synonymous. That refers to the total stocks of words in a language. Brown (2001: 377) also states that words are basic building blocks of language. Along with Jackson and Brown, Todd (1987:49) argues that when we think of language we tend to think about words. Moreover, Nunan (2003:130) states that words are clearly vocabulary. She also adds that vocabulary is not only that, but it also words combination/ multiple units, word families, and core meaning also are counted as vocabulary. Vocabulary conveys

meaning. Spratt, Pulverness, and Williams (2005: 10) argue that lexis is individual words or sets of words, i.e. vocabulary items that have a specific meaning. Kamil and Hiebert (2005:1) states that words represent complex and, often, multiple meanings. Moreover, she adds that furthermore, these complexes, multiple meanings of words need to be understood in the context of other words in the sentences and paragraphs of texts. Vocabulary is used in contexts. In line with Kamil and Hiebert about the contextual use of words, Jackson (2000) cites that we shall consider the vocabulary of English as a package of subsets of words that are used in particular context.

To conclude, vocabulary refers to words and its subsets that become one of crucial aspects in a language construction. It conveys meaning in the language used in different kinds of context.

### **2.6.2. Kinds of Vocabulary**

There are different kinds of vocabulary according to different experts' point of views. According to its classes, Morley (2000:3-57) elaborates that words are traditionally allocated to one of the following classes: noun, pronoun, article, verb, adjective, adverb, preposition, conjunction and interjection; and genitive phrase. With respect to the meaning which they convey, nouns denote what we will call entities. In meaning terms, verbs may be said to express processes which can be classified in one of three broad ways, they can denote actions, record events, and refer to states.

According to the researchers' opinion, vocabulary is an aspect of language which is important in language learning because vocabularies carry meaning which is

used in communication. All of the statements about vocabulary show that vocabulary is important in learning English. Vocabulary is considered as the most important part in learning a language. It is impossible for the students to read, write and speak a foreign language well without having enough knowledge of the vocabulary. Learning the new vocabulary does not only mean memorizing the form of the word but also understanding its meaning.

According to Harmer (2001: 56), there are some sources to learn vocabulary in teaching learning process, they are:

a. Words list

Word list is an economical way of organizing vocabulary for learning and it does not matter a great deal if they are put together in a random way. The students can learn vocabulary wherever they are, because it is easy to bring.

b. Vocabulary book

It is also integrated into skills work, typically in the form of a pre-task or post task vocabulary focus. There is many vocabulary and task in vocabulary book which can be an exercise for the students.

c. The teacher

The teacher is a potential source of vocabulary input not only in terms of in accidental learning, but also as a means of introducing vocabulary through teacher talk.

d. Learner

Each learner can contribute to the shared class lexicon through activities as brainstorming. Learner can improve their vocabulary from other learner by

discussion and sharing with their friends.

e. Short text

Short text for vocabulary building purposes whether spoken or written have enormous advantages over learning words from lists. From the statement above, we know that the teacher and learner have the great influence in improving the students' vocabulary.

The teacher must help the students to improve the students' vocabulary, especially in teaching learning process. Teacher must make students feel enjoy in learning vocabulary. So, it will make the students easier in remembering new vocabulary that they have gotten. With much vocabulary they will be able to communicate with other and understand what they have read. Therefore the students with poor vocabulary need to build their vocabulary.

Each word in English belongs to one of the eight [parts of speech](#). Each word in English is also either a content word or a function word. Content words are usually nouns, verbs, adjectives, and sometimes adverbs. According to Charles F. Meyer (2009) content words are usually nouns, verbs, adjectives and adverbs.

1. Noun

Noun identifies people, places, things and ideas. Nouns can be categorized as either common or proper. Nouns perform and often receive the action being performed in sentences and they play other roles in sentences, too. There are many types of nouns. Those are:

a. Adjectival Noun

Adjectival noun is an adjective that function as it noun. The example of adjectival noun is '*the poor* is asking any food from *the rich*'.

b. Animate Noun

Animate nouns refer to a person, or other creature. This animate noun sometimes has different noun endings which make the gender clear. The example of animate noun is 'we meet the *manager*'

c. Collective Noun

Collective noun is a word used to define a group of objects can be people, animals, emotions, concept or other thing. It is a noun that refers to things or people as it unit. The examples of collective noun are 'the *team* joins the match' and 'the *audience* gives their applause to the singer'.

d. Compound Noun

Compound noun is a noun that is made up of two or more words. Most compound nouns in English are form by nouns modified by other nouns or adjective. The example of compound noun is 'the teacher is writing her notes on the *whiteboard*'.

e. Concrete Noun

Concrete noun refers to entities which can be observed and measured. The example of concrete noun is 'she holds many *books*'.

f. Abstract Noun

Abstract noun refers to unobservable notion, such as difficulty, idea, certainly, etc.

g. Proper Noun

Proper nouns are names of specific people, place, occasion, events, and publications and so on. Proper nouns are not usually used with determiners. It is also written with an initial letter. The examples of proper noun are 'I went to museum on *Sunday*' and 'I love *Indonesia*'.

## 2. Verb

Verb tells us about the action happening or the state a word that indicates an [action](#). There are different types of verbs including modal verbs, helping verbs, active verbs, phrasal verbs, and passive verbs. There are several types of verb. Those are:

### a. Auxiliary Verb

Auxiliary verb is also called as helping verb. This helping verb assist the main verb in a clause to express several basic grammatical contrasts, such as in person, number and tenses. They do not follow the same grammatical rules as main verb, which is why they must be considered as a separate class. Auxiliary can be used before the word 'not'. It is also put the subject in order to ask question.

### b. Inchoative Verb

Inchoative verb is a verb that describes a change of state. The examples of inchoative verb are 'the refrigerator *freezes* everything in it' and 'the fire *burns* the wood'.

### c. Modals

Modal verbs convey a range of judgments about the likelihood of events, function only as auxiliary verbs, expressing meanings which are much

less definable, focused and independent than those of lexical verbs. The example of modal is ‘she *can* finish her homework without any help’.

#### d. Phrasal Verb

Phrasal verb is a set of verbs which demonstrate some unique properties. It appears with what looks to be a preposition, traditionally referred to as particle. The example of phrasal verb is ‘the plane *took off*’.

#### e. Regular and irregular verb

A regular verb is a verb that follows the pattern of taking –ed for the past tense and past participle or –d if the words ends in e, such as smoke-smoked. And irregular verb is a verb that does not take the –ed ending for the past tense and past participle forms. Some irregular verb do not change: put- put- put while others change completely: buy- bought-bought. The examples of regular and irregular verbs are ‘he *walked* alone to the school’ and ‘she *drank* a cup of milk’.

### 3. Adjective

It is word used to qualify noun or pronoun. An adjective modifies a noun or a pronoun by describing, identifying, or quantifying words. An adjective usually precedes the noun or the pronoun which it modified. Here are several types of adjective:

#### a. Possessive Adjective

A possessive adjective (my, your, her, his, their, our, its) is similar or identical to a possessive pronoun, however, it is used as an adjective and

modifies a noun or a noun phrase. The example of possessive adjective is 'I cannot complete *my* assignment because I do not have any textbook'.

b. Demonstrative Adjective

The demonstrative adjectives *this, these, that, those* and *what* are identical to demonstrative pronouns, those are used as adjectives to modify nouns or noun phrases. The example of demonstrative adjective is '*this* apartment needs to be fumigated'.

4. Adverb

Adverbs tell us how, when or where something is done. A word used to [describe a verb which tells how, where, or when](#) something is done. Adverbs of frequency come before the verbs they modify. Other adverbs come at the end of a sentence.

### 2.7. Procedure of Teaching Vocabulary through Spelling Puzzle

Adopted from Rosnelly (2010) the application of teaching vocabulary through Spelling Puzzle is as follows:

1. Students are introduced the topic and given brainstorming of the material based on their background knowledge related to the topic discussed.
2. Students are divided in to groups of three.
3. Each group is given a copy of Spelling Puzzle then teacher tells the the instructions.
4. Students are asked to work in group to answer the question about the target words in Spelling Puzzle.
5. Students are asked to work in groups to identify the target words in the



question of Spelling Puzzle sheets then find out the meaning of them.

6. Students are asked orally to spell the new words they have discussed.

### **2.8. Procedure of Teaching Vocabulary through Crossword Puzzle**

Adopted from Rosnelly (2010) the application of teaching vocabulary through Crossword Puzzle is as follows:

1. Students are introduced the topic and given brainstorming of the material based on their background knowledge related to the topic discussed.
2. Students are divided into groups of three.
3. Each group is given a copy of Crossword Puzzle then teacher tells the instructions.
4. The teacher distributes a text and the students are asked to identify the target words by using Crossword Puzzle.
5. Students work in groups to do exercise which are given by the teacher.
6. Students are asked orally to spell the new words they have discussed.

### **2.9. Advantages and Disadvantages of Game Puzzles**

1. Advantages

Larcabel in Ashma (2006) states that there are several advantages of game puzzles as follows:

- a. Students are more active in studying vocabulary by playing games.
- b. Teaching vocabulary items through games in an attractive way can increase students' vocabulary.
- c. Playing games can build students' self-confidence.
- d. Helping memorize vocabularies in English more easily.

## 2. Disadvantages

The students are active but noisy. Sometimes they too much move and talk.

Then, the situation is hard to control.

### **2.10. Theoretical Assumption**

Based on the frames theories, it can be assumed vocabulary is important thing that should be mastered by students in learning English as foreign language. Students need to build up their vocabulary in order to learn and use a foreign language. By mastering vocabulary, they can express their minds, make sentence, get knowledge from the context, and practice the language as a means of communication. So, without mastering vocabulary students will have difficulties in communicate effectively or express the idea.

Teaching vocabulary needs taking into account by the English teachers. They should search for better ways of teaching vocabulary so that it can be meaningful and useful and the students can find it easier to understand the words which are taught and students can also increase vocabulary well.

There are many kinds of techniques in teaching vocabulary and the teacher should be able to teach vocabulary or words as much as possible to the students by using an appropriate technique. It means that the teacher have to be aware with the kind of teaching technique that they can use to come to their goal.

The researcher assumes that Spelling Puzzle and Crossword Puzzle can be effective in increasing students' vocabulary achievement significantly. The students can remember the new words in English in a long term, they can spell

and pronounce the words in English well through Spelling Puzzle and Crossword Puzzle. The material of the Spelling Puzzle and Crossword Puzzle are given to the students based on their interesting. Further, student can remember the new words, spell and pronounce the words correctly through the puzzle. Teaching techniques by using game puzzle also can help the class situation alive and attract the student attention to focus on their lesson.

By having good situation, students enjoy learning process of foreign language. In this situation, the students are assigned to find difficult and new words while they solve the puzzle given. They learn and understand the new words easier since they have pleasuring time in learning. Therefore, the researcher assumes that after being taught through Spelling Puzzle and Crossword Puzzle the students may be able to understand and memorize the vocabulary better than before the treatment, so the students' vocabulary achievement may increase significantly.

### **2.11. Hypothesis**

Based on the review above of related literatures and theoretical assumption, the researcher formulates the hypothesis as follows.

H<sub>1</sub>: There is a significant difference in students' vocabulary achievement taught through Spelling Puzzle and Crossword Puzzle technique

### III. RESEARCH METHOD

This chapter is concerned with the following items: research design, population and sample, data collecting technique, instrument of the research, procedure of the research, criteria of good test, data analysis technique and hypothesis testing.

#### 3.1. Research Design

The researcher used a quantitative research design, in which data tend to use statistic as measurement in deciding the conclusion (Setiyadi, 2006:96). To gain the objectives of the research, the researcher applied a quantitative design with a *pre-test post-test experimental group design*. The researcher selected two classes, the first class was the Experimental Group One and the other as the Experimental Group Two. According to Hatch and Farhady (1982:22) the design of the research is described as follows:

G1 : T1 X<sub>1</sub> T2

G2 : T1 X<sub>2</sub> T2

*Notes:*

G1 : Experimental Class One

G2 : Experimental Class Two

T1 : Pre-test

T2 : Post-test

X1 : Treatment for experimental class one (Spelling Puzzle)

X2 : Treatment for experimental class two (Crossword Puzzle)

This research was conducted in sixth meetings. The first meeting was for pre-test, the second until the fifth meetings were for treatments, and the sixth meeting was for post-test and questionnaire.

### **3.2. Population and Sample**

The population of the research was the first grade of SMP Muhammadiyah 3 Bandar Lampung in the academic period of 2016/2017. The total number of students in this school was 489 students. There are five classes for each grade, every class consisted of around 33 to 36 students. In this research, the researcher took three classes from the first grade purposively as the subject of the research. There was one class as the try out class, one class as an Experimental Class 1, and another as an Experimental Class 2. In order to see that Experimental Class 1 and Experimental Class 2 had approximately the same ability, the researcher took the data from conducting the pre-test for the classes, Experimental Class 1 and Experimental Class 2. The results were compared. It was necessary to measure whether the two classes had the same basic ability or in other words, they had equal knowledge.

### **3.3. Data Collecting Technique**

In collecting the data, the researcher used test of vocabulary to measure the students' improvement before and after being taught through Spelling Puzzle and Crossword Puzzle and questionnaire to investigate students' responses toward the application of those techniques.

### 3.3.1. Test

The researcher used pre-test and post-test to measure the students' improvement of vocabulary after being taught through Spelling Puzzle and Crossword Puzzle techniques

#### 1. Pre-Test

The researcher gave a pre-test to the students. The purpose of the test was to know the students' vocabulary mastery before being given treatments. The test consisted of 40 items in multiple choices and each item had 4 options of answer. One was the correct answer and the rest were distractors. It was conducted in 70 minutes. The pre-test was administered once.

**Table 3.1. Specification of Pre-Test**

No	Word Classes	Number of Items	Percentage
1	Noun	1, 2, 3, 4, 5, 26, 27, 28, 29, 30	25%
2	Verb	11, 12, 13, 14, 15, 31, 32, 33, 34, 35	25%
3	Adjective	6, 7, 8, 9, 10, 36, 37, 38, 39, 40	25%
4	Adverb	16, 17, 18, 19, 20, 21, 22, 23, 24, 25	25%
Total			100%

#### 2. Post-Test

Post-test was conducted after the researcher conducted the treatment. It was used to know the increase of students' vocabulary after they were given the treatments. The questions in the post-test were the same as the pre-test. However, the researcher changed the questions and the distractors in other numbers which were differed to those in pre-test. The test consisted of 40 items in multiple choices and

each item had 4 options. One was the correct answer and the rest were distractor.

It was conducted in 70 minutes. This test had the same difficulty level as pre-test.

**Table 3.2. Specification of Post-Test**

No	Word Classes	Number of Items	Percentage
1	Noun	6, 7, 8, 9, 10, 26, 27, 28, 29, 30	25%
2	Verb	11, 12, 13, 14, 15, 31, 32, 33, 34, 35	25%
3	Adjective	1, 2, 3, 4, 5, 36, 37, 38, 39, 40	25%
4	Adverb	16, 17, 18, 19, 20, 21, 22, 23, 24, 25	25%
Total			100%

### 3.3.2. Questionnaire

Questionnaire consists of a list of questions to gather data from the respondents.

In this case, the respondents were the first grade students of SMP Muhammadiyah 3 Bandar Lampung Class 7E and Class 7D. The respondents were asked to answer all the questions. Questionnaire was used to find out the students' responses toward the teaching of vocabulary through Spelling Puzzle and Crossword Puzzle techniques.

There were 10 questions to be answered by the respondents related to the Spelling Puzzle and Crossword Puzzle in the teaching learning material. The questions were: "Is the class being active when the teacher taught through Spelling Puzzle or Crossword Puzzle?", "Did the puzzle make you easier in identifying a noun?", "Did the puzzle make you easier in identifying a verb?", "Did the puzzle make you easier in identifying an adjective?", "Did the puzzle make you easier in identifying an adverb?", "Did the puzzle make you easier in remembering new

words in English?”, “Did the puzzle make you easier to spell English words?”, “Did the puzzle make you easier to pronounce English words?”, “Did you like to learn vocabularies by using Spelling Puzzle or Crossword Puzzle?”, “Did you find some difficulties in learning vocabularies by using Spelling Puzzle and Crossword Puzzle?”.

### **3.4. Procedure of the Research**

In collecting the data, this research used this following step to get the good result of this research.

#### **a. Determining Research of the Problem**

Pre-observation was held by the researcher in order to determine the background of the problem in this research. It was found that the most of students who have low vocabulary achievement. The English teachers only applied a monotonous technique to teach vocabulary. The daily learning activities were evaluated to see problems in learning vocabulary.

#### **b. Constructing Instruments of the Research**

The scope of this research is students' vocabulary achievement in the content words. So, this study used an objective vocabulary test as an instrument of the research in order to measure students' vocabulary achievement related to content words. This study used a pretest and posttest for vocabulary test. It could measure the significance difference of the students' vocabulary achievement before and after getting treatments. Lesson materials were taken from textbooks used in school. This research used questionnaire to investigated students' responses toward the application of those techniques.



#### c. Determining the Population and Sample

The population of the research was the first grade of students of SMP Muhammadiyah 3 Bandar Lampung Class 7D and Class 7E in the second semester of academic period of 2016/2017. The research used Simple Probability Sampling to determine the sample of the research.

#### d. Administering the Try out Test

The try out test was carried out after choosing the subject. It was a multiple choices test. The number of the test items was 50 items. There were four alternative answers for each item (A, B, C, D) and one was the correct answer and the rest were the distractors.

The purpose of the try out was to make sure the quality of validity, reliability, level of difficulty, and discrimination power of the test which was then used as the instrument of the test. Some items were dropped or revised because of poor quality. This test was administered in 80 minutes.

#### e. Administering the Pre-test

The pretest was administered before Spelling Puzzle and crossword activity, so that the students' vocabulary achievement related to content words can be identified before Spelling Puzzle and Crossword Puzzle activity. The pretest which consisted of 40 items was conducted in 70 minutes.

#### f. Conducting the Treatments

There were three times of treatment conducted in this research. Each treatment was held in 2X40 minutes consisting vocabulary of content words (noun, verb,

adjective and adverb) which taught through Spelling Puzzle in Experimental Class 1 and Crossword Puzzle in Experimental Class 2.

g. Administering Post-test

The posttest was held after the implementation of Spelling Puzzle and Crossword Puzzle. It was administered in 70 minutes and the aim was to find out students' vocabulary achievement after being taught through Spelling Puzzle technique and Crossword Puzzle.

h. Administering Questionnaire

The questionnaire was given to the students in order to know students responses toward the teaching learning process. It was use to know students' responses after being taught through Spelling Puzzle and Crossword Puzzle techniques.

i. Analyzing the Data

The data of the research were statistically analyzed. Repeated Measures T-test is used to analyze the data in order to identify whether the Spelling Puzzle and Crossword Puzzle technique were able to increase the vocabulary achievement or not. The researcher used the Statistical Package for Social Sciences (SPSS) version 16 to analyze the data.

j. Interpreting the results of data analysis and drawing conclusion

The data were interpreted after it was finished to be analyzed by using SPSS 16.0. It was used to compare the result of students' vocabulary achievement taught through Spelling Puzzle and Crossword Puzzle.

### **3.5. Criteria of Good Tests**

Whenever a test or other measuring device is used aspect of the data collection process. There are four criteria of a good test, there are: validity, reliability, level of difficulty, and discrimination power.

#### **1. Validity of the Test**

According to Gage (1960), validity of the test is the degree to which it measures what is intended to measure. Actually, there are five types of validity but researcher wants to describe two of those types of validity, there are content validity and construct validity.

##### **a. Content validity**

Based on Hatch and Farhady (1982), content validity is concerned with whether test is sufficiently representative and comprehensive for the test. In the content validity, the materials given are suitable with the curriculum. To fulfill this validity, the researcher saw all the indicators of the instrument and analyze them whether the measuring instrument represent the material that was measured or not. While all indicators were based on the material, it meant that the instrument was fulfilled the criteria of content validity. In this case, the researcher used the vocabulary of content words (noun, verb, adjective and adverb) related to procedure text that were supposed to comprehend by grade VII students.

##### **b. Construct validity**

Construct validity is used to ensure that the measure is actually measure what it is intended to measure (i.e. the construct), and no other variables. Construct validity is concerned with knowing the certain language skill. To know the test is true

reflection of language which is being measured, the researcher examined whether the test question actually reflect what was meant to know a language.

## 2. Reliability of Test

According to Haris (1974), reliability of the test is consistency which a test yields the same result in measuring whatever it was measures. So, a test cannot measure anything well unless it measures consistently. Meanwhile according to Slameto, reliability of the pretest and posttest are examined by using statistical measurement.

The statistical formula is:

$$r_{xy} = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$

Notes:

$r_{xy}$ : coefficient of reliability between odd and even numbers items.

$x$  : odd number

$y$  : even number

$x^2$  : total score of odd number items

$y^2$  : score of even number items

$xy$  : total score of odd and even number

The criteria of reliability are:

0.80 – 1.00 : reliability is very high

0.60 – 0.70 : reliability is high

0.40 – 0.59 : reliability is average

0.20 – 0.39 : that reliability is low

0.00 – 0.19 : that reliability is very low

(Hatch and Farhady, 1982:247)

### 3. Level of Difficulty

To see the level of difficulty, the researcher used the following formula:

$$LD = \frac{U+L}{N}$$

Notes:

LD : level of difficulty

U : number of upper group students who are answer correctly

L : number of lower group students who are answer correctly

N : the total number of students following the test

The criteria are:

<0.30 : difficult

0.30 – 0.70 : average

.0.70 : easy

( Shohamy, 1989:79)

### 4. Discrimination Power

Discrimination power is how the test can differentiate between the students with good and not good score. A good test makes a real difference between the students with lower score and the students from higher score. To find out the discrimination power, this research utilized the following formula:

$$D = \frac{U-L}{1/2N}$$

Notes:

D: discrimination power.

U: the number of upper group students who answer correctly.

L: the number of lower group students who answer correctly.

N: the total number of the students.

The criteria are:

D: 0.00 – 0.20 indicates that the item of the test is poor.

D: 0.21 – 0.40 points out that the item of the test is satisfactory.

D: 0.41 – 0.70 denotes that the item of the test is good

D: 0.71 – 1.00 points out that the item of the test is excellent.

D: - (negative) indicated that the item of the test is bad items and should be omitted.

(Heaton, 1975:180)

1. If the value is positive discrimination a large number of more knowledgeable students then the poor students get the item in correct. If the value is zero, it is means no discrimination.

2. If the value is negative, it means that more low-students than high students got the item correct.

3. In general, the higher the discrimination index, the better. In classroom situation most items should be higher than 0.20 indexes.

(Shohamy, 1985:81)

### 3.6. Data Analysis Technique

The researcher analyzed the data in order to compare the increase of the students' vocabulary mastery in the used of Spelling Puzzle and Crossword Puzzle as the media. The researcher analyzed the students' vocabulary achievement by doing these activities:

1. Scoring the pre-test and post-test
2. Tabulating the result of the test and calculating the mean scores of the pre-test and post-test.

The formula is as follows:

$$Md = \frac{\sum d}{N}$$

Note:

$Md$  = mean differences

$\sum d$  = number of individual deviation

$N$  = number of cases

3. Drawing conclusion from the tabulated results of the pre-test and post-test, then analyzing by using *Independent Group T-test* through the Statistical Package for Social Science (SPSS) 16.0.

After computing the t-test, the degree of freedom has to be finding in order to determine if the t-score is significant. If the value t-calculated is smaller than t-table, there is significant of null hypothesis is rejected. Vice versa, if the value of t-calculated is bigger than value t-table, it means there is no significant or alternative hypothesis is accepted.

### 3.7. Data Treatment

After collecting the data, the researcher analyzed the data by using *Independent Group T-Test* in SPSS. The researcher collected the data by looking at the results of pre-test and post-test of vocabulary to find out the result of the students' vocabulary achievement. The result of the test was in form of score or interval data. After getting the results the researcher analyzed the improvement of students' vocabulary achievement after being given treatments and which one was better between Spelling Puzzle and Crossword Puzzle for teaching vocabulary.

There for the researcher used homogeneity and normality test to treat the data taken from result of pre-test. The results of the treatment were as follows.

#### a. Normality Test

The normality of test used to measure whether the data in Experimental Class 1 and Experimental Class 2 were normally distribute or not.

The hypothesis for the normality test is as follows:

$H_0$ : the data is not distributed normally

$H_1$ : the data is distributed normally

In this research, the criteria for the hypothesis are:

$H_1$  is accepted if  $p > \alpha$ , and the researcher uses level of significance at 0.05

#### b. Homogeneity Test

This test was used to determine whether the data fulfill the criteria of the quality of variance. This test used T-Test to analyze the data.

The hypothesis for the homogeneity of variance is as follows:



$H_0$ : there is no significant difference (equal)

$H_1$ : there is a significant different (not equal)

In this case,  $H_0$  is accepted if  $p > \alpha$  ( $p$  = the significant score of students,  $\alpha$  = the significant level). Here, the researcher uses the significant level ( $\alpha$ ) of 0.05.

### **3.8. Hypothesis Testing**

After collecting the data, the researcher tried to analyze them in order to find out how far Spelling Puzzle and Crossword Puzzle improved students' vocabulary achievement and which technique gave better improvement for the students' vocabulary achievement. The hypotheses were as follows:

$H_0$ : There is no significant difference between students' vocabulary achievement taught through Spelling Puzzle and Crossword Puzzle.

$H_1$ : There is a significant difference between students' vocabulary achievement taught through Spelling Puzzle and Crossword Puzzle.

## V. CONCLUSION AND SUGGESTION

This chapter describe the conclusion of the result of the research and also the suggestion from the researcher to others researchers and teachers who wants to try to apply Spelling Puzzle and Crossword Puzzle technique as the media to improve students' vocabulary achievement.

### 5.1. Conclusions

In line with the result with data analysis and discussion, the researcher draws the following conclusion:

1. There is significant difference of students' vocabulary achievement after being taught through Spelling Puzzle and Crossword Puzzle techniques. It showed that in Experimental Class 1 the mean score of post-test (80.91) was higher than the pre-test and the gain was 12.12. Meanwhile, in Experimental Class 2 the mean score of post-test (72.93) was higher than the pre-test (58.78) and the gain was (14.15). it means that there were an improvement in vocabulary achievement in learning English.
2. Spelling Puzzle is more effective than Crossword Puzzle to help students to increase their vocabulary achievement. That can be identified from student's mean score of post-test in Experimental Class 1 is 80.91 and in Experimental Class 2 is 74.71, and the gain was 6.20. It means that Experimental Class 1 gains 6.20 points higher than Experimental Class 2 in post-test. The concept of

Spelling Puzzle is arranging the scrambled letters into the correct word by using sentence and picture as cues. Moreover the using of picture could provide the real object and led the students to catch the meaning faster.

3. Spelling Puzzle and Crossword Puzzle technique could make the learning and teaching activity more effective, the students enjoy the class activity during the techniques were applied. Because of the students enjoy the techniques, they could understand the material, the students were able to identify each class of words (noun, adjective, verb and adverb).

## **5.2. Suggestions**

Referring to the conclusion above, some suggestions can be listed as follows:

1. The teacher should be able to find and choose an appropriate material in teaching English, especially in vocabulary achievement. Spelling Puzzle and Crossword Puzzle are the techniques which have been proved appropriate to be applied in teaching vocabulary although Spelling Puzzle gives better result for the students.
2. The students should be able to improve their vocabulary and language skills in order to communicate to other people easily and it will help them to increase their English subject achievement at school.
3. Further researcher is suggested to be more careful in managing time so students could finish the assignment well. Spelling Puzzle and Crossword Puzzle need more time in teaching and learning activity because the teacher should explain the rules of the puzzles. Therefore, time management is needed in teaching vocabulary by using those techniques.

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