

**THE USE OF CROSSWORD PUZZLES TO IMPROVE  
THE ELEVENTH-GRADE STUDENTS' VOCABULARY MASTERY IN  
THE DESCRIPTIVE TEXTS AT SMA YP UNILA**

**(Undergraduate Thesis)**

**By**

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**ENGLISH EDUCATION STUDY PROGRAM  
DEPARTMENT OF LANGUAGE AND ARTS EDUCATION  
FACULTY OF TEACHER TRAINING AND EDUCATION  
UNIVERSITY OF LAMPUNG  
2025**

## **ABSTRACT**

### **THE USE OF CROSSWORD PUZZLES TO IMPROVE THE ELEVENTH-GRADE STUDENTS' VOCABULARY MASTERY IN THE DESCRIPTIVE TEXTS AT SMA YP UNILA**

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This study investigates the use of crossword puzzles as a learning tool to improve the eleventh-grade students' vocabulary mastery in descriptive texts at SMA YP UNILA. A one-group pre-test and post-test design was employed within a quantitative research design. A total of 30 students from class XI.10 participated in the study. The sample was selected through purposive sampling. The research instruments included vocabulary pre-tests and post-tests focusing on content words such as nouns, verbs, adjectives, and adverbs. The pre-test and post-test results were analysed using SPSS to determine the improvement of students' vocabulary mastery. The findings revealed a significant improvement in students' vocabulary mastery with the Sig. (2-tailed) value  $<0.00$ , below 0.05, and the mean of pre-test scores increased from 58.52 to 82.47 in the post-test, resulting in a mean difference of 23.95. All aspects of vocabulary, nouns, verbs, adjectives, and adverbs, showed significant improvement, with nouns achieving the highest. These findings show that using crossword puzzles significantly improved students' vocabulary mastery. It can be concluded that crossword puzzles effectively improve vocabulary mastery in the eleventh-grade students at SMA YP UNILA.

**Keywords:** *Crossword Puzzle, Vocabulary Mastery, Content words, Descriptive texts, Quantitative research. eleventh-grade students.*

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DEPARTMENT OF LANGUAGE AND ARTS EDUCATION  
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Research Title : **THE USE OF CROSSWORD PUZZLES TO IMPROVE  
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MASTERY IN THE DESCRIPTIVE TEXTS AT SMA YP  
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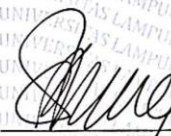
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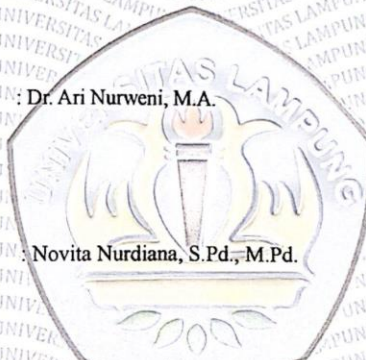
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Menyatakan bahwa skripsi ini adalah karya dari pelaksanaan penelitian saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya gunakan sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya.

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## **CURRICULUM VITAE**

Ranggi Radisty Siregar was born on December 29th 2003 in Bandar Lampung. She is the second child of Aprianto and Dewi. She began her education at Al-Azhar Kindergarten, continued to Al-Azhar 2 Elementary School, and graduated in 2015. After that, she pursued her studies at SMPN 19 Bandar Lampung and graduated in 2018. She continued her studies at SMA YP UNILA Bandar Lampung, graduating in 2021. She was accepted at the English Education Study Program of Teacher Training and Education Faculty at the University of Lampung through the SNMPTN program in the same year, where she graduated from senior high school. As an English Department student, she was actively involved in students' organizations and became part of it as a head of finance. She has had several experiences teaching in schools and children's communities.

## **DEDICATION**

The script is proudly dedicated to:

My Dearest Parents – Ayah Aprianto and Bunda Dewi

My Beloved Family – Keluarga Besar Opung and Kakek

My Almamater – English Education Department, University of Lampung



## **MOTTO**

“No matter how your heart is grieving, if you keep on believing, the dreams that  
you wish will come true.”

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Alhamdulillah Rabbil' Alamin, all praise is due to Allah SWT because, for his blessings and grace, the Researcher can complete this undergraduate thesis entitled "The Use of Crossword Puzzles to Improve the Eleventh-Grade Students' Vocabulary Mastery in Descriptive Texts at SMA YP UNILA. The Researcher is submitting this script to fulfil a prerequisite for a bachelor's degree in English Education Study Program, Faculty of Teacher Training and Education, University of Lampung.

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The researcher understands that this thesis is imperfect and might have weaknesses. Therefore, she is open to any feedback and suggestions. She hopes this undergraduate thesis can contribute positively to education or be useful for future research.

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The Researcher

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## **I. INTRODUCTION**

This chapter explain about background of the research, question of the research, objective of the research, uses of the research, scope of the research, and definition of terms.

### **1.1. Background of the Research**

One of the requirements for learning English as a foreign language is mastering vocabulary. Mastering vocabulary means having the ability to understand and use the words and their meanings. Vocabulary refers to the entire collection of words that make up a language. As stated by Wilkins in Thornbury (2002), “Without grammar, very little can be conveyed; without vocabulary, nothing can be conveyed.”. In line with McCarthy (1990), no matter how well the students learn grammar or how successfully the sounds of a second language are mastered, without words to express a wide range of meanings, communication in the second language just cannot happen in any meaningful way. Thus, the statement showed the importance of mastering vocabulary. Mastering English is greatly influenced by vocabulary. By understanding vocabulary, students can express ideas in written and spoken English.

Mastering vocabulary requires students to memorize as many words as possible. According to Thornbury (2002), students who learn English need to know 2000 words, around the number of words native speakers use in daily conversation. However, to be on the same level as a native speaker, a student must master about 15,000–20,000 words. Mastering vocabulary can be particularly challenging for foreign language students due to several factors. Many students struggle with the correct pronunciation and spelling of new words. Learning new words can be challenging due to their sheer volume, particularly if students do not regularly

practice or use them in context. Additionally, the differences in linguistic rules between their native language and English complicate the process.

In the teaching process, a teacher should use various learning tools to motivate students to learn the lesson. Students need a teaching process that is engaging and enjoyable. The aim of using learning tools is to make students more interested when learning the lesson. Many tools are available for teaching vocabulary, and one such tool is the use of crossword puzzles. Crossword puzzles are activities where words are placed horizontally and vertically in numbered squares on a diagram, and the words are discovered by solving clues. (Manullang *et al.*, 2018). According to Weisskrich (2006), crossword puzzles can function as a learning tool for students to assess both their comprehension and their lack of understanding. It means that by completing crossword puzzles, the student can acquire new vocabulary and improve their proficiency in language skills. In line with Jones (1992), crossword puzzles can be used in a variety of ways to teach new vocabulary and to help learners memorize what they already know. Based on these statements, it can be inferred that crossword puzzles are a learning tool to teach vocabulary, and students should fit the words across and downwards by solving the clues in order to assess their knowledge.

According to the result of research carried out by Nugraha & Wihadi (2023), it is found that crossword puzzles bring out the enthusiasm and response of the students in public junior high schools as well as a huge improvement in the average of pre-test 40.61 to post-test 80.60. Also, most students have reached the successful vocabulary mastery score indicator in one cycle. Another result of research conducted at Dharna Bakti Medan Junior High School found that the mean of students' scores increased continuously from pre-test 36.71, post-test in cycle I 64.10, to post-test cycle II 78.48. It means that crossword puzzle games can improve students' vocabulary mastery. Manullang *et al.* (2018) found this to be the case. Furthermore, Meliyani & Karevati (2021) found that teaching vocabulary through crossword puzzles in one junior high school in Cimahi helped students to easily memorize the vocabulary and increased student engagement in the classroom. The

result also indicated positive responses from students, with the majority expressing interest and enjoyment in learning vocabulary through crossword puzzles.

Previous studies have not examined the use of crossword puzzles among eleventh-grade students in senior high school. Therefore, the researcher aims to investigate whether the use of crossword puzzles as a vocabulary learning tool can improve their vocabulary mastery. Based on the discussion, the researcher intends to conduct a study entitled ‘The Use of Crossword puzzles to Improve Eleventh-Grade Students Vocabulary Mastery in Descriptive texts at SMA YP UNILA.’

### **1.2. Question of the Research**

Based on the background of this research problem, the researcher identified the research question as follows:

Is there any significant improvement in the eleventh-grade students’ vocabulary mastery after the researcher applies crossword puzzles?

### **1.3. Objective of the Research**

Based on the research question above, the objective of this research is to find out whether there is any significant improvement in the eleventh-grade students’ vocabulary mastery after the researcher applies crossword Puzzles.

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

The researchers expect the result of this research can give benefits in many aspects as follows:

1. Theoretically, the result of this research is useful for supporting the theory about the use of crossword puzzles to improve senior high school students’ vocabulary mastery.
2. Practically, the result of this research is useful for English teachers to find a fun and enjoyable learning tool to teach vocabulary for senior high school students.

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

This research is focused on using the crossword puzzle as a learning tool to improve students' vocabulary mastery in the eleventh grade of senior high school. The researcher focuses on the collection of words such as verbs, nouns, adjectives, and adverbs found in descriptive texts.

### **1.6. Definition of Terms**

#### **Vocabulary**

Vocabulary refers to the set of words that students need to understand and use to communicate effectively in English. In this study, the researcher only focuses on vocabulary found in the context of descriptive text such as noun, verb, adjective, and adverb.

#### **Crossword Puzzle**

A crossword puzzle is where words are placed horizontally and vertically into numbered squares on a diagram, and the words are discovered by solving clues. Crossword puzzles can function as a learning tool for students to assess both their comprehension and their lack of understanding of English vocabulary.



## **II. LITERATURE REVIEW**

This chapter explain about previous studies, theories of vocabulary, teaching of vocabulary, aspects of vocabulary, types of vocabulary, crossword puzzle, crossword puzzle in teaching vocabulary, procedure of teaching vocabulary using crossword puzzle, advantages and disadvantages of crossword puzzle, descriptive texts, theoretical analysis, and hypotheses.

### **2.1. Previous Studies**

A change in content delivery is necessary to create a new learning environment and increase students' enthusiasm. Using a crossword puzzle can help students retain vocabulary by allowing them to guess the words in the specified area based on questions and lesson material. Other researchers have conducted several studies on the use of crossword puzzles in vocabulary teaching.

According to the research results by Wijaksono & Siddik (2022), there is a significant difference between students' vocabulary mastery before and after using crossword puzzles in High School 1 Banyuputih. This study aimed to determine whether there was an effect on using crossword puzzles through students' vocabulary mastery and the significant differences before and after using crosswords through students' vocabulary mastery. This study employs a quantitative research method, utilizing a pre-experimental design, and data was analyzed using SPSS 16. Questionnaires, pre-tests, and post-tests served as tools for gathering the data. The result of the research shows that the lowest pre-test was 50, and the highest score was 76; after being taught using crossword puzzles, the lowest score on the post-test was 70, and the highest was 94. It means that crossword puzzles are effective in improving students' vocabulary mastery.

Another result is from the research conducted by Anwar & Efransyah (2018) at SMPN 10 Cimahi. This research attempts to verify the effectiveness of the crossword puzzle in teaching vocabulary to seventh-grade students. The method used is quantitative and pre-experimental research designed; the data is collected with the pre-test and post-test as an instrument. The student's mean score on pre-tests is 29.69, and after implementing the crossword puzzle, the mean score on post-tests is 82.50. Implementing the crossword puzzle improved the students' vocabulary and got positive responses from them.

In addition, Rahayu & Srirahayu (2020) researched the effectiveness of crossword puzzles in improving students' vocabulary mastery in the second grade of SMP Muara Madani. The research method is a pre-experimental class, and to obtain the data, the researchers used a pre-test, post-test, and questionnaire. The findings of this research show that the average score on the pre-test was 56.41, with the highest score being 87.5 and the lowest score being 32.5 after teaching using crosswords. The average score on the post-test was 64.23, with the highest score being 100, while the lowest score was 32.5. It means crossword puzzles effectively improve students' vocabulary mastery in the second grade of Muara Madani Junior High School.

Furthermore, Saepuloh *et al.* (2022) recommend using crossword puzzles to enhance students' vocabulary mastery. This research was conducted at SD Islam Al-Jidsi, and the participants were grade 2 students. This study employed the quantitative CAR method, collecting data through three instruments: observations, tests, and interviews. The result of vocabulary tests shows that the mean score of students' vocabulary mastery in the diagnostic test was 60.56, in the test of cycle one was 67.22, and in cycle two was 74.44. It shows that students' vocabulary mastery has increased.

## **2.2. Vocabulary**

Vocabulary plays an important role in English, as it is essential for students to develop their language skills. The four main skills in language learning are listening, speaking, reading, and writing. For students learning English, having a

strong vocabulary base and mastering the vocabulary are essential to facilitate their learning process. Mastering vocabulary means that students have comprehensive knowledge about the vocabularies that include the meanings, the spoken form, the written form, the grammatical behaviour, the word derivation, the collocations of the words, the register of the word—spoken and written—the connotation or associations of the word, and word frequency. By mastering vocabulary, students can effectively communicate with one another. Vocabulary enables students to convey thoughts, opinions, ideas, and emotions.

According to Clouston (2013), vocabulary is an integral part of learning English because students cannot understand what other people are saying or explain their thoughts without it. In line with Zawil (2016), having sufficient vocabulary will enable one to communicate fluently and efficiently, as it is one of the main requirements for effective communication. Furthermore, Daulay (2021) stated that students must master vocabulary to develop their four language skills, such as creating a sentence or communicating in a foreign language. Students who lack vocabulary will have a lot of difficulty expressing their thoughts and feelings. Vocabulary mastery is one of the factors in mastering English as a foreign language. Mastering the vocabulary shows that students can understand and apply the words with their meanings. Mastering vocabulary will lead to fluent communication and mastery of the four language skills, especially in conveying ideas.

In short, vocabulary has an important role in language learning. It is an essential part of every language skill and communication process. Before students learn about English skills, they should learn vocabulary as the first step.

### **2.3. Teaching Vocabulary**

In teaching vocabulary, the teacher has an important role in teaching new words. According to Linse & Nunan (2005), several principles can be used for teachers when focusing on vocabulary development for students as a part of an ESL or EFL program. This principle can also help students develop oral and written language skills:

1. Emphasize both direct and indirect teaching

Direct instruction means teaching the words and their meanings. An example of direct instruction is teaching vocabulary that students will deal with in reading passages. Indirect instruction refers to helping students learn the right strategies to find out the meaning of the words themselves. An example of indirect instruction is teaching students the prefixes uni, bi, and tri and having them point to pictures of unicycles, bicycles, and tricycles.

2. Teach vocabulary words before a new activity.

Teaching vocabulary words before a new activity has two advantages. First, students will be better able to comprehend the activity, and second, students will actually acquire the target vocabulary words. For example, a teacher can use a real tourist spot attraction to stimulate students' interest in the words that they were pre-teaching material about tourism.

3. Teach how to use context clues appropriately

Teaching students using context clues and guessing meaning is useful. This can help students when they encounter unfamiliar words, but students also need to know that context clues do not always help them to understand the meaning of unfamiliar words. For example, the teacher provides text about tourism and includes one of the tourist spot attractions that is unfamiliar for students, but because they know the context clues, students can answer that the unfamiliar word.

4. Present multiple exposures to new vocabulary items

Do not expect students to remember all new vocabulary that has been taught. Teachers should not expect that a vocabulary word taught on Monday will be remembered on Wednesday. New words should appear many times and in different situations. For example, on Monday, when studying about tourism, the teacher gives students text about Borobudur Temple, and on Wednesday, the teacher can ask students to mention several content words that they have learned and found in the text.

5. Give opportunities for deep processing of vocabulary items.

Deep processing means using words in context that is meaningful to students. It is working with information at a high cognitive level. Part of deep processing

is having students establish connections between new words and their prior knowledge. For example, a teacher can teach a lesson about tourism and ask students to talk about their favourite destination for a holiday.

6. Teach students to use dictionaries.

Students can get benefits from using dictionaries. When students are at the beginning stages of learning a language, they can use picture dictionaries as tools to help them increase both their vocabulary knowledge and their use of context clues. As a teacher, it is important to teach students how to use different dictionaries. For example, students need to know that the first meaning given in a dictionary is the most common meaning.

7. Have students keep vocabulary notebooks

Vocabulary notebooks provide students with opportunities to develop a variety of vocabulary acquisition strategies and also help students have more control over their learning. For example, a teacher can ask students to create their own picture dictionaries. Students can easily record new words that they are learning.

Based on the explanation above, it can be concluded that there are several principles that can be used for teacher when focusing on vocabulary development.

## **2.4. Aspects of Vocabulary**

According to Mochizuki and Robert (2007) there are several aspects of vocabulary that students should be aware of; meaning, pronunciation, grammar, collocations, word formation, idioms, connotation, and register.

1. Meaning

Teacher should make sure students knowing or having a clear idea of the words not just knowing its dictionary meaning. It also knowing the words commonly associated with it as well as its connotations, including register and its cultural accretions.

2. Pronunciation

Teacher should prioritize teaching pronunciation to enhance conversation and dialogue skills. Unfamiliar sounds in words can make learning more

challenging. Teacher can simply put the target words on the board, pronounce the correct pronunciation, and ask students to repeat.

### 3. Grammar

Grammar is a system of rules, while vocabulary is largely a collection of items. For correct usage in speaking and writing, there are two factors essential for students to know concerning a word. First, what part of the speech the word is: noun, verb, adjective, etc. Second, its derivative forms. Derivatives are the different forms a word can have; ride, riding, rode, ridden, rider.

### 4. Collocations

Collocations means words that often occur together. For example, hurry up, by the way, too much. Native speaker can speak fluently because they know lots of collocation. It can instantly call upon the, without having time to think about constructing phrases first.

### 5. Word Formation

Word formation also known as Affixation or Compounding. Word formation means knowing how words are written and spoken and how the word can change their form (derivative) such as prefixes, suffixes, part of speech, and noun into verbs. These are also known as word families. For example, the word family for use; used, using, user, misuse, usury and so on.

### 6. Idioms

Idioms are phrases that cannot be understood by students merely by understanding the meaning of their components. They must be memorized as whole units. Idioms can only be learned through memorization. It is important for teacher to teach common idioms used in everyday English so they can use it in daily life.

### 7. Connotation

Connotation can be defined generally as the idea, impression, or other quality implied by a word rather than its meaning. Teacher should teach students that the dictionary definitions of two words may be the same but there is a difference between the words which is sensed by native speaker. For example, the differences between smell and stink.



## 8. Register

Register relates to the formality or politeness of the words or phrases used. It is determined by the relationship of the speakers. For example, when students speak to a friend may not be appropriate when speaking to a teacher. Students need to be aware of the different meanings of words and how they can affect the speaker or listener relationship.

According to Thornbury (2002) there are eight different word classes (nouns, pronouns, verbs, adjectives, adverb, prepositions, conjunction, and determiner) and these words divided in two group; function words and content words.

### 1. Function words

Function words also called as grammatical words mainly contribute to the grammatical structure of the sentence. There are prepositions, conjunctions, determiner, and pronouns. (Thornbury 2002)

#### a. Prepositions

Preposition is a word those functions to connect some word or phrase with noun phrase. (Putrawan & Nurweni 2018)

For example: of, for, by, in, on, etc. (Anggi put the book *on* the table)

#### b. Conjunctions

Conjunction is a word that function to connect a word, phrase, or clause with another in a sentence. (Putrawan & Nurweni 2018)

For example: for, before, or, after, whether, and etc. (You can eat banana *or* apple)

#### c. Determiner

Determiner is a word that is usually come before noun or at the beginning of a noun phrase. (Harmer 2007)

For example: the, an, a, and etc. (*the* red bus)

#### d. Pronouns

Pronouns is a word used to replace noun to avoid repetition. (Putrawan & Nurweni 2018)

For example: it, he, she, we, this, that, mine, yours, and etc. (Anggi worked so well that *she* was promoted)

## 2. Content words

Content words are the words that carry a high information load. Content words are usually nouns, verbs, adjectives, and adverbs. (Thornbury 2002)

### a. Nouns

Nouns are words that refer to names of people, places, idea, thoughts, and objects. According to Putrawan & Nurweni (2018) Nouns are divided into several types; Concrete noun, Abstract noun, Common noun, Proper Noun, Countable noun, Uncountable noun, Regular plural noun, Irregular plural noun, Collective noun, and Possessive noun.

- Concrete noun, refers to objects that can be sensed by our all five senses. Example: Fruits.
- Abstract noun, refers to object that cannot be seen and touched but it can be imagine. Example: Love
- Common noun, refers to a person, place, object and the first letter doesn't use capital. Example: girl, house, town, and etc.
- Proper noun, is the same as a concrete noun but more specific and the first letter of the word is capitalized. Example: Bandar Lampung, Ranggi, and etc.
- Countable noun, refers to object that can be counted with numbers. Example: car, dog, house, and etc.
- Uncountable noun, refers to object that cannot be counted with numbers. Example: salt, sugar, oil, and etc.
- Regular plural noun, is to pluralize a singular noun. Example: Girl > Girls
- Irregular plural noun, is to add 'ves' to noun that has "f" at the end and changing it to "v" and add "es". Example: leaf > leaves
- Collective noun, refers to a group of objects that have compound meanings but are considered singular. Example: Family, Crowd, Team, and etc.
- Possessive noun, refers to possession, Example: Bird's wings

b. Verbs

Verbs are word used to describe the action or state of the subject. According to Putrawan & Nurweni (2018) Verbs are divided into several types; Action verb, linking verb, helping verb, transitive verb, and intransitive verb.

- Action verb, refers to express an action, either physical action or mental action. Example: run, kick, walk or love, think, prefer, and etc. (She *runs* or he always *thinks* about it.)
- Linking verb, refers to describe how and what the subject is like. Example: turn, taste, feel, sound, and etc. (The idea *sounds* great)
- Helping verb, refers to help the main verb to describe action or make a statement. Example: is, am, are, must, shall, will. (The students *are* reading a book)
- Transitive verb, refers to verb that is followed or have a direct object. Example: throws, kick, and etc. (Jae kicked the ball)
- Intransitive verb is the opposite of transitive verb, this verb doesn't have direct object. Example: sing, dance, and etc. (The singer sings well)

c. Adjectives are words to explain the characteristic of object, person, animals, situation, and condition. According to Putrawan & Nurweni (2018) Adjectives are divided into several types; absolute, comparative, and superlative.

- Absolute, refers to describe object, person, idea, and situation with the same characteristic. Example: Lions as wilds as tigers
- Comparative, refers to describe object, person, idea, and situation, with bigger or smaller characteristic. Example: Sunjae is more handsome than his father.
- Superlative, refers to describe object, person, idea and situation with the biggest characteristic. Example: Anggi is the prettiest girl ever.

d. According to Putrawan & Nurweni (2018) Adverbs are divided into several types; adverb of manner, adverb of time, adverb of place, adverb of degree, adverb of frequency.

- Adverb of manner, refers to express an action or event performed. Example: Her father drives carefully.
- Adverb of time, refers to describe the time when an action or event occurred. Example: I am working on my thesis *now*.
- Adverb of place, refers to describe the place where action or event occurred. Example: I live *there*.
- Adverb of degree, refers to describe or explain verb, adjective, or another adverb in sentence. Example: The boy is *very* talented.
- Adverb of frequency, refers to expresses how often an action or event occurred. Example: Anggi *usually* sleeps at 10 p.m.

Based on the explanation above it can be concluded that there are several aspects of vocabulary that students should be aware of in order to mastering the vocabulary. The researcher wants to focuses on teaching content words; nouns, verbs, adjectives, and adverbs that found in descriptive texts.

## **2.5. Crossword Puzzle**

A teacher should use various learning tools to motivate students to learn the lesson in the teaching process. Students need a fun teaching process. One of the learning tools that is believed to improve students' vocabulary mastery is the crossword puzzle. Crossword puzzles are an activity where words are placed horizontally and vertically in numbered squares on a diagram, and the words are discovered by solving clues. (Manullang *et al.*, 2018). In line with Merkel (2016), the crossword puzzle requires students to read clues and fill in correct or relevant answers by crossing horizontal and vertical white square lines. Classrooms commonly use crossword puzzles to enhance vocabulary improvement.

According to Moursound (2007), crossword puzzles use someone's general knowledge, remembering defined or suggested words with short definitions and spelling. Working on a crossword puzzle is like doing a specific brain exercise. Furthermore, Weisskrich (2006) said crossword puzzles could function as a learning tool for students to assess both their comprehension and their lack of understanding. It means that by completing crossword puzzles, the student can

acquire new vocabulary and improve their proficiency in language skills. In line with Jones (1992), crossword puzzles can be used to teach new vocabulary and help learners memorize what they already know.

Based on the explanation above, it can be inferred that a crossword puzzle is a learning tool to teach vocabulary. The learner should fit the words across and downwards by solving the clue to assess students' knowledge.

## **2.6. Crossword Puzzle in Teaching Vocabulary**

There are some kinds of crossword puzzle that can be performed in the process of teaching and learning vocabulary in the classroom.

According to Widyasari (2010) there are three types of crossword puzzle that can be used in teaching vocabulary;

- a. An oral puzzle, the teacher presents an oral puzzle to students who are given an empty crossword puzzle without a clue. Ask students to fill out what they could and then repeat the instruction until they understand.
- b. A picture puzzle, it is a puzzle using picture as a clue. The teacher only gives students the puzzle without a clue except the picture.
- c. An object puzzle, it is the crossword where inside the object is written a clue. The teacher gives a blank puzzle without a hint to students. The goods placed around the room, each given labelled with prompts number. Then students are asked to go around to pick up the objects as they complete the puzzle.

Based on the explanation above, several types of crossword puzzles exist, such oral puzzles, picture puzzles, and object puzzles.

## **2.7. Procedure of Crossword Puzzle in Teaching Vocabulary**

Before starting the class activity using a crossword puzzle, the researcher should prepare the procedure related to the material on the syllabus.

The steps of teaching vocabulary by using Crossword Puzzle:

1. Teacher greets students
2. The teacher checks students' attendance.

3. After checking students' attendance, the teacher introduces the material to students.
4. The teacher asks students about crossword puzzles.
5. The teacher gives students a crossword puzzle related to the material.
6. The teacher explains the material.
7. The teacher gives students assignments related to the material using crossword puzzles as a learning tool.
8. The teacher checks the answers to the students' assignments and discusses with the students whether they are still confused about the material.
9. The teacher asks students about today's activity.

Based on the explanation above, it can be inferred that there are nine steps to teaching vocabulary using a crossword puzzle.

## **2.8. Advantaged and Disadvantages**

Using Crossword Puzzle as a learning tool for learning vocabulary has advantages and disadvantages. Here are some of them:

### **2.8.1. Advantages of Crossword Puzzle**

1. Engaging and challenging activities like crossword puzzles can prevent students from becoming bored with monotonous learning methods. By incorporating fun and interactive elements, crossword puzzles make vocabulary learning more fun and dynamic, keeping students engaged and motivated.
2. Crossword puzzles can significantly increase students' motivation and engagement as they learn vocabulary through active participation, rather than passive reception. This interactive approach makes the learning process more stimulating, as students are involved in solving clues and filling in words, which can foster a deeper understanding of the material.
3. Crossword puzzles are an excellent way to train students in problem-solving skills. Each puzzle presents clues requiring critical thinking, logical reasoning, and analytical skills to solve. When students work on



puzzles, they develop their ability to approach problems systematically and think creatively.

4. Crossword puzzles are a good way to teach and enrich vocabulary because the definitions or clues are available in the puzzles. This direct reinforcement helps students understand the meaning of words in context, which can result in better vocabulary mastery and more comprehensive understanding.

### **2.8.2. Disadvantages of Crossword puzzle**

1. If students lack familiarity with the tested vocabulary, they may struggle to guess the answers to the crossword puzzle. This lack of understanding can lead to frustration, especially if students encounter words or definitions that they have never seen before. If students consistently struggle with the crossword due to unfamiliar vocabulary or difficulty understanding the clues, then this can lead to frustration and decreased motivation. When students feel that they cannot succeed in an activity, they may not enjoy the learning process.
2. Completing the crossword puzzle may increase the noise level in the classroom. Students often seek help from their peers when they encounter difficult clues, resulting in side conversations that can distract other students.

Based on the explanation above, it can be inferred that crossword puzzle not only has advantages but also has disadvantages as a learning tool in teaching vocabulary.

## **2.9. Descriptive Text**

Descriptive text is a specific type of writing that aims to provide a detailed description of a person, place, thing, or event. The main goal is to create a vivid picture in the reader's mind by using various linguistic features and a structured format. Descriptive texts describe how something looks, smells, feels, acts, tastes, or sounds, according to Gerot and Wignell (1994). Basically, this text provides detailed information about the characteristics of people, places, and things to help

the reader to visualize them effectively. In short, descriptive text focuses on providing detailed information.

The main purpose of a descriptive text is to describe an object in detail. This can include physical characteristics such as size, colour, shape, and texture, as well as other characteristics such as sounds, smells, and emotions related to the subject. Identification and description are the two generic structures in descriptive text. In identification, the writer identifies the subject or phenomenon to be described. In description, the writer details specific parts, qualities, and characteristics of the subject. In addition, they explain the grammatical features of descriptive texts, including the use of simple present tenses, verbs, adjectives, vocabulary, and mechanics.

Based on the explanation above, descriptive text is effective for improving vocabulary mastery by providing detailed information about various subjects, such as people, places, things, and events. By studying descriptive texts, students get exposure to a wide range of vocabulary, including physical characteristics, sensory details, and emotional nuances. This detailed treatment helps students visualize the subject matter and deepen their understanding of word meaning and usage.

## **2.10. Theoretical Assumption**

Vocabulary refers to the entire collection of words that make up a language; mastering vocabulary means having the ability to understand and use the words and their meanings. There are a lot of learning tools that can be used in teaching vocabulary; one of them is using crossword puzzles. Crossword puzzles can function as a learning tool for students to assess both their comprehension and their lack of understanding.

Crossword puzzles can be the best option to improve students' vocabulary mastery because they can require students to actively engage with vocabulary words, as they must think critically to solve the clues and fill in the correct answers. This activity is believed to encourage deeper cognitive processes, which are essential for effective learning in vocabulary learning. Crossword puzzles provide repeated

exposure to vocabulary as students encounter words multiple times in different contexts. This repetition reinforces memory retention and helps stabilize understanding, making it easier for students to recall and use these words. Furthermore, crossword puzzles can increase student motivation and interest in learning vocabulary. When students find the learning process enjoyable, they are more likely to engage in mastering vocabulary.

In conclusion, using crossword puzzles as a learning tool for vocabulary learning can significantly improve students' vocabulary mastery by making the learning process more engaging.

### **2.11. Hypothesis**

Based on the background of the problem and theoretical assumption above, the researcher formulates the hypothesis as follows:

H1: There is a significant improvement in the eleventh-grade students' vocabulary mastery after applying crossword puzzles.

This chapter has explained previous studies, theories of vocabulary, teaching of vocabulary, aspects of vocabulary, crossword puzzle, crossword puzzle in teaching vocabulary, procedure of teaching vocabulary using crossword puzzle, advantages and disadvantages of crossword puzzle, descriptive texts, theoretical assumption, and hypothesis.

### **III. METHODOLOGY**

This chapter discuss the methods of research that used in this study. This refers to design, variable, population and sample, instrument, procedure of data collection, data analysis, data treatment, and hypothesis testing.

#### **3.1. Design**

This research used quantitative research. The objective of this research is to find out whether there is any improvement on students' vocabulary mastery after they have been taught using crossword puzzle. The researcher used a one-group pre-test and post-test design in order to answer the research question. According to Setiyadi (2018), the formula can be seen as follows:

$$\text{T1 X T2}$$

Notes:

T1: Pre-test for students' vocabulary mastery before treatment is given

T2: Post-test for students' vocabulary mastery after treatment is given

X: Teaching vocabulary through Crossword Puzzle

In this study, a pre-test (T1) was given before the researcher taught vocabulary using crossword puzzles as a learning tool to measure students' competence before receiving the treatment. The treatment was given by using crossword puzzles as a learning tool in the teaching and learning process to determine if there was an improvement in students' vocabulary mastery. A post-test (T2) was given after the

researcher taught the students using crossword puzzles to measure how much the students' vocabulary mastery improved after receiving the treatment.

### **3.2. Variables**

This research consisted of an independent variable and a dependent variable. Crossword puzzles are classified as the independent variable (X) because it was assumed that using crossword puzzles could improve students' vocabulary mastery. The students' vocabulary was classified as the dependent variable (Y) because it was expected that students' vocabulary mastery could improve as a result of using crossword puzzles to learn vocabulary.

### **3.3. Population and Sample**

#### **3.3.1. Population**

This research was conducted at SMA YP UNILA Bandar Lampung. The population of this research is the students at the eleventh grade. There were twelve classes in the eleventh grade of SMA YP UNILA Bandar Lampung. Each class consists of 30-33 students. The researcher used one class as a representative.

#### **3.3.2. Sample**

The sample of this research is XI-7 class, which consists of 32 students. The researcher used purposive sampling. Purposive sampling is used with the aim that the individual or selected case can represent a case that can answer the research problem (Setiyadi, 2018).

### **3.4. Instrument**

The researcher collected the data using vocabulary tests; pre-test and post-test in order to reach the study objectives. Before the researcher starts the treatment, a pre-test is administered; following the treatment, a post-test. The students should select one correct answer; in the pre-test and post-test, they answered 27 multiple-choice questions with four alternative answers: a, b, c, and d. The questions focused on the

content words; nouns, verbs, adjectives, and adverbs that appear in the descriptive texts. The purpose of the test is to find out how far their vocabulary mastery was before the treatment and how much it has improved since being taught using crossword puzzle.

### **3.5. Validity and Reliability of the Instrument**

Validity and reliability are two elements that are relatively inseparable from a measuring instrument. A measuring instrument that has fulfilled the validity element can be said that the measuring instrument also fulfils the reliability element. (Setiyadi, 2018). In this study, the researcher used the try-out test results to measure validity, reliability, level of difficulties, and discrimination power.

#### **3.5.1. Validity of Vocabulary Test**

According to Setiyadi (2018) the validity of a measuring instrument show that extent to which the measuring instrument measures something that must be measured. In this research, two forms of validity were used: content validity and construct validity.

##### **a. Content Validity**

Content validity is related to all the items in instrument. To achieve this type of validity, the researcher should look at all the indicators in the form of question items and analyse whether the measuring instrument as whole represents the material to be measured. Content validity is related to the extent to which the preparation of the items in the test based on the curriculum. (Setiyadi 2018). The researcher made the vocabulary test based on the syllabus and Merdeka Curriculum for the second grade of SMA YP UNILA about Descriptive Text in Unit 2 – Seeing a New Opportunity. The test items included vocabulary such as nouns, verbs, adjectives, and adverbs. The following is the table of distribution of the vocabulary test.

**Table 3. 1 Specification of Vocabulary Test Items**

NO	Content Words	Items Number	Total
1	Nouns	1, 2, 9, 15, 16, 20, 30, 33, 36, 39, 44, 45, 46, 47.	14
2	Verbs	3, 6, 10, 12, 17, 21, 24, 25, 32, 35, 42, 48.	12
3	Adjectives	4, 7, 11, 13, 18, 19, 26, 27, 28, 29, 43, 49.	12
4	Adverbs	5, 8, 14, 22, 31, 34, 37, 38, 40, 41, 50.	12
Total			50

#### **b. Construct Validity**

According to Setiyadi (2018) Construct validity is required for measuring instruments that have several indicators in measuring one aspect or construct. For example, if the instrument measure only one aspect such as Vocabulary. Its construct validity can be measured by evaluating all the items. In this study, the researcher used vocabulary test about content words that are found in descriptive text, such as noun, verb, adjectives, and adverb, to measure the student's vocabulary mastery.

#### **3.5.2. Reliability**

According to Setiyadi (2018) Reliability is the consistency of a measuring instrument. If we measure the same subject at different times, the results will be the same. The researcher used Two-sided Method (odd-even) to check the reliability of this study. To measure the coefficient of the reliability between odd and even groups, this study used the Pearson Product Moment Formula as follows:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Notes:

$r$  : Coefficient of reliability between

$n$  : The total subject of experiment

$\Sigma x$  : Odd number

$\Sigma y$  : Even number

$\Sigma x^2$  : Total score of odd number items

$\Sigma y^2$  : Total score of even number items

$\Sigma x^y$  : The sum of the total square score

Based on the reliability standards set by Arikunto (1998), the correlation between forms calculated in this study using Pearson Product Moment was 0.874. This value indicated that the test instrument used in this research had a very high reliability. The method works by dividing the test into odd and even numbers and correlating their results (Data in appendix 3).

The researcher continues to put them into reliability formula Spearman-Brown's Prophecy to know the coefficient correlation of the whole times after getting the coefficient correlation between odd and evens numbers. The formula of Spearman-Brown's Prophecy is as follows:

$$rk = \frac{2rl}{1 + rl}$$

Notes :

$rk$  : The reliability of the test

$rl$  : The reliability of half the test

The standard of reliability is described as follows:

- A very low reliability (ranging from 0.00 to 0.19)
- A low reliability (ranging from 0.20 to 0.39)
- An average reliability (ranging from 0.40 to 0.59)
- A high reliability (ranging from 0.60 to 0.79)
- A very high reliability (ranging from 0.80 to 1.00)



The results of the reliability analysis for the vocabulary test items reveal a very high level of reliability with a coefficient of 0.933. This result is consistent with previous calculations, affirming the strong consistency of the test items. The reliability coefficient indicates that the test items are effective in measuring vocabulary mastery.

**Table 3. 2 Reliability Statistic by Using SPSS**

Correlation Between Forms		.874
Spearman-Brown Coefficient	Equal Length	.933
	Unequal Length	.933
Guttman Split-Half Coefficient		.929

Based on the table above, the result of the split half reliability and the Spearman-Brown reliability method produced high and very high results, which is 0.874 for the split half method and 0.933 for the Spearman-Brown method. Both have high reliability, despite using different methods in testing the reliability of vocabulary test. With this, it can be started that the measurements are reliable and dependable despite the difference in the method of calculation.

### 3.6. Level of Difficulty

Level of difficulty shows how easy or difficult the item provided in the test (Heaton, 1975). To check the difficulty level of the test items, the researcher used the formula as follows:

$$LD = \frac{R}{N}$$

Notes:

LD : Level of Difficulties

R : The number of correct answer

N : The number of students taking the test

The criteria of level difficulty (Heaton, 1975):

0.00-0.30 is difficult

0.31-0.70 is average

0.72-1.00 is easy

**Table 3. 3 Difficulty Level of Test Items**

No	Number of Items	Computation	Criteria
1	10, 11, 22, 45,	<0.30	Difficult
2	3, 7, 9, 12, 14, 15, 21, 24, 26, 28, 29,30, 31, 33, 34, 35, 38, 41, 42, 43, 47, 48, 50	0.30 – 0.70	Average
3	1, 2, 4, 5, 6, 8, 13, 16, 17, 18, 19, 20, 23, 25, 27, 32, 36, 37, 39, 40, 44, 46, 49	>0.70	Easy

The level of difficulty was categorized into three sections. The first section was categorized as “Difficult” with a computation of less than 0.30 and only four difficult questions. In the second category “Average” there was 23 questions whose computation varied between 0.30 and 0.70. For the “Easy” category, there are 23 questions that fall into the computation >0.70.

### 3.7. Discrimination Power

Discrimination power shows whether students who perform well on the test as a whole tend to perform well or poorly on each item in test. It is assumed that the total score on the test is a valid measure of students’ ability (Heaton, 1975). The researcher used the formula as follows:

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

Notes:

DP : Discrimination Power

U : Total of the correct answers of the higher group

L : Total of the correct answers of the lower group

N : Total number of students

The criteria are:

DP = 0.00-0.20 is poor

DP = 0.21-0.40 is satisfactory

DP = 0.41-0.70 is good

DP = 0.71-1.00 is excellent

-(Negative) is a bad item, and should omitted

The criteria are:

1. If the value is positive discrimination, high-quality students are better informed than low-ability students to answer the question correctly. If the value is zero, there is no discrimination.
2. If the value is negative, more low-ability students than high-ability students answer the question correctly
3. In general, the higher discrimination index, the better. In a classroom situation, most items should have a discrimination index higher than 0.20.

**Table 3. 4 Discrimination Power of Test Items**

Number of Items	Computation	Criteria	Decision
5, 10, 11, 14, 16, 22, 23, 26, 32, 33, 45, 47, 48, 49	0.00 – 0.20	Poor	Dropped
6, 8, 12, 34, 42, 46, 50.	0.21 – 0.40	Satisfactory	Dropped
4, 13, 17, 18, 19, 20, 21, 25, 31.			Administered

1, 2, 3, 7, 9, 15, 24, 27, 28, 29, 35, 36, 37, 38, 39, 40, 41, 43, 44	0.41 – 0.70	Good	Administered
30	0.71 – 1.00	Excellent	Administered

Based on the data above, it was determined that 14 items were categorized as poor, 16 items as satisfactory, 19 items as good and 1 item as excellent. To enhance the reliability of the test, all poor and invalid satisfactory were removed. The final selection of items, categorized as satisfactory, good, and excellent, resulted in a carefully curated list, ultimately reducing the total number of questions from 50 to 27.

### 3.8. Data Collecting Technique

The researcher used techniques for collecting the quantitative data. In this research, the researcher used a research instrument to determine whether the research objective is achieved or not. The instrument of this research is a vocabulary test consisting of a pre-test and post-test. The techniques for collecting the data are as follows:

#### a. Pre-test

A pre-test was given before the researcher taught vocabulary using crossword puzzles as a learning tool in teaching to measure students' vocabulary mastery in content words, focusing on nouns, verbs, adjectives, and adverbs before they received the treatment. The pre-test consisted of 27 questions in the form of multiple-choice.

#### b. Post-test

A post-test was given after the researcher taught the students using crossword puzzles to measure how much their vocabulary mastery improved in content words, focusing on nouns, verbs, adjectives, and adverbs. The post-test consisted of 27 multiple-choice questions.

### 3.9. Procedure

The researcher uses the procedure of researching as follows:

a. Determining population and sample

The populations of this research were the eleventh-grade students of SMA YP UNILA Bandar Lampung in the first semester of 2024/2025 academic year. The sample of the research was the students of class XI-7.

b. Selecting material for treatment

The researcher used the materials based on the curriculum and syllabus for eleventh-grade students of senior high school in SMA YP UNILA Bandar Lampung. The descriptive texts were used as the materials in this research. To make this learning process more fun and enjoyable, the researcher used crossword puzzle as a learning tool for teaching descriptive texts to improve students' vocabulary mastery.

c. Try Out

The researcher conducted a trial test using 50 multiple-choice questions, each with a single correct answer. This approach aimed to assess the validity and reliability of the questions.

d. Conducting pre-test

Before starting treatment for the students, the researcher performed a pre-test to find their vocabulary mastery. There are 27 questions concerning content words; noun, verb, adjectives, and adverb that are shown in the descriptive texts. The test took the multiple-choice format with four options (a, b, c, and d).

e. Implementing the treatment

This research used crossword puzzle as a learning tool to teaching descriptive texts. The researcher conducted the treatment in the class for three meetings. The treatment was given to provide students a better understanding of vocabulary in descriptive texts.

f. Conducting post-test

The researcher conducted the post-test after the treatment which aimed to know the progress of student's vocabulary mastery after the treatment through crossword puzzle. There are 27 questions concerning content words; noun,

verb, adjectives, and adverb that are shown in the descriptive texts. The test took the multiple-choice format with four options (a, b, c, and d).

g. Analysing the result of pre-test and post-test

To find out whether there is an improvement in students vocabulary mastery, The research data were statistically examined using SPSS 25 (Statistical Package for the Social Sciences). This was used to determine the mean value of pre-test and post-test and how significant the improvement was after the students were taught through crossword puzzle. In the last step, the researcher made a student score report.

### 3.10. Data Analysis

After collecting the data, the researcher analyses the data. This technique aimed to know whether there is any improvement on students' vocabulary mastery after being taught by crossword puzzle. The researcher used formula by Arikunto (2006) after the data is collected to score the student tests:

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

Notes:

S: Score of the text

R: Right answer

N: Total of the items

After scoring the pre-test and post-test, the researcher calculates the average score of both pre-test and post-test by using this the formula below:

$$M = \frac{\sum X}{N}$$

Notes:

M: Mean (average score)

X: The total of students' score

N: Total of number of the students

The researcher can determine the impact of the treatment on students' vocabulary mastery by comparing the average scores of pre-test and post-test.

### 3.11. Data Treatment

To find out the improvement of students' vocabulary mastery after being taught using Crossword puzzle as a learning tool in teaching vocabulary, the researcher used a quantitative data analysis to analyse the data the researcher using the SPSS. In this research, the researcher used the following procedures:

#### a. T-test

The data was analyzed by using SPSS (Statistical Program for Social Science) t-test to examine find out there is any improvement on students' vocabulary mastery after being taught using the crossword puzzle.

#### b. Normality Test

The researcher used a normality test to find out whether the date is distributed normally or not. The hypotheses formulated as follows:

H<sub>0</sub>: The data is distributed normally

H<sub>a</sub>: The data is not distributed normally

In this research, the criteria for normality are if the significance value >0.05, then the data distribution meets the assumption of normality, and if the significance value

### 3.12. Hypothesis Testing

The researcher was used a t-test to determine whether the hypothesis proposed in this research is accepted or rejected. The researcher formulates the hypotheses as follows:

$$H_1 = \text{Sig.} < 0.05$$

Where:

If the Sig. two-tailed is lower than 0.05, therefore H<sub>0</sub> is rejected and H<sub>1</sub> is accepted.

If the Sig. two-tailed is higher than 0.05, therefore H<sub>0</sub> is accepted and H<sub>1</sub> is rejected.

H0 = There is no significant difference between students' vocabulary mastery before and after they have been taught through crossword puzzle.

H1 = There is a significant difference between students' vocabulary mastery before and after they have been taught through crossword puzzle.

This chapter has explained the methods of research that used in this study. This refers to design, variable, population and sample, instrument, procedure of data collection, data analysis, data treatment, and hypotheses testing



## **V. CONCLUSION AND SUGGESTION**

This chapter describes the conclusions of the data found during the research and suggestions for future researchers and teachers who want to apply Crossword Puzzle to the learning process, especially in teaching vocabulary.

### **5.1. Conclusion**

The findings of this study demonstrate that using crossword puzzles as a learning tool significantly improves students' vocabulary mastery. The results showed a significant improvement in students' vocabulary knowledge, as indicated by the significant increase in their post-test scores compared to the pre-test. Based on the results of the pre-test, it was found that the total score was 1755, and the average score was 58.52. The highest score was 70, while the lowest was 44, which shows that their basic vocabulary skills are very low. The total score increased from 1755 in the pre-test to 2474 in the post-test, with a difference of 718.48 points. The average score also improved, increasing from 58.52 in the pre-test to 82.74. From the scores of the pre-test and post-test, the gain is 23.95. After conducting the research, the researcher found some words that many students know, such as nouns, which are names of places or animals, verbs such as eat and fly, adjectives such as tall and largest, and adverbs such as perfectly and regularly. However, there are some words that they still don't know, such as stunning, massive, endangered, etc. The interactive and engaging crossword puzzles helped students better understand content words in descriptive texts, making learning more enjoyable and effective.

The study also highlighted those students became more motivated, enthusiastic, and actively participated in the learning process when crossword puzzles were used in the classroom. By integrating written and visual clues, students were able to reinforce their understanding of new vocabulary in a fun and meaningful way. Furthermore, the study supports previous research, affirming that crossword puzzles are an effective strategy for improving vocabulary mastery. Despite the positive outcomes, some challenges were noted, such as increased classroom noise due to students' excitement while solving puzzles. However, this enthusiasm reflects their engagement in learning, which is essential for language development. Overall, using crossword puzzles in vocabulary learning proved effective, providing students an interactive and enjoyable way to improve their vocabulary mastery.

## **5.2. Suggestion**

From the results of this research, the researcher identified some challenges faced during the treatments using the crossword puzzles. One important issue was the problem of the class becoming noisy, which was caused by students being too enthusiastic in answering the clues on the crossword puzzle. To face or minimise the problem, the researcher would like to provide several suggestions:

1. Based on the findings of this research, the suggestion for English teachers as follows:
  - For teachers, set clear rules and guidelines before starting the activity to minimize noise while using crossword puzzles. Teachers should also encourage structured participation by organizing students into small groups and implementing a time limit to keep students focused and reduce unnecessary chatter. Additionally, teachers can encourage students by asking them to speak in low voice. Active monitoring and guidance during the activity will help redirect overly enthusiastic behaviour while ensuring productive engagement.

2. Based on the findings of this research, the suggestion for future research is as follows:
  - For future researchers, it would be great to explore how crossword puzzles can be used to other language skills, such as for listening practice, researcher can read out the crossword clues aloud, requiring students to listen carefully and fill in the answers based on what they hear. Students can be asked to create clues for each crossword answer to develop writing skills, encouraging them to construct clear and descriptive sentences. For speaking practice, students can work in pairs, where one student describes a word without naming it while the other guesses and fills in the crossword, promoting both speaking fluency and active listening. By expanding its use, crossword puzzles could become a more comprehensive tool for language learning. Additionally, while this study used a quantitative approach, future research could incorporate qualitative methods, such as student interviews or focus groups, to gain deeper insights into their experiences and opinions about using crossword puzzles in learning. Understanding student's perspectives can help improve teaching methods and create more effective learning materials.

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