

THE EFFECT OF WORD SEARCH PUZZLE GAME TO VOCABULARY MASTERY AT THE VIII GRADE STUDENTS OF SMP N 5 PADANGSIDIMPUAN

A THESIS

Submitted to the State Istitute for Islamic Studies Padangsidimpuan as a Partial Fulfillment of the Requirement for the Graduate Degree of Islamic Education (S.Pd) in English

Written by:

LINDA SARI LUBIS Reg. No. 16 203 00013

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY STATE INSTITUTE FOR ISLAMIC STUDIES PADANGSIDIMPUAN 2021



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LINDA SARI LUBIS Reg. No. 16 203 00013

ADVISOR I

<u>Dr. Fitriadi Lubis, M.Pd</u> NIP. 19620917 199203 1 002

M.Hum. iregar. 12 2 004

ADVISOR II

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY STATE INSTITUTE FOR ISLAMIC STUDIES PADANGSIDIMPUAN

2021

LETTER OF AGREEMENT

Term : Munaqosyah Item : 7 (seven) examplars

Padangsidimpuan, july 2021 a.n. Linda Sari Lubis To: Dean Tarbiyah and Teacher Training Faculty In-

Padangsidimpuan

Assalamu 'alaikum wr.wb.

After reading, studying and giving advice for necessary revision on the thesis belongs to Linda Sari Lubis, entitled "The Effect of Word Search Puzzle Game to Vocabulary Mastery at the VIII Grade Students of SMP N 5 Padangsidimpuan". We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in IAIN Padangsidimpuan.

Therefore, we hope that the thesis will soon be examined by the Thesis examiner team of English Education Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidimpuan. Thank you.

Wassalam 'alaikumwr.wb.

Advisor I

<u>Dr. Fitriadi Lubis, M.Pd.</u> NIP. 19620917 199203 1 002

Advisor II

Siregar, M.Hum. 820731 200912 2 004

DECLARATION LETTER OF WRITING OWN THESIS

The name who signed here:

1

Name	: Linda Sari Lubis
Reg. Number	: 16 203 00013
Faculty/Department	: Tarbiyah and Teacher Training Faculty/ TBI-1
The title of the Thesis	: THE EFFECT OF WORD SEARCH PUZZLE GAME TO VOCABULARY MASTERY AT THE VIII GRADE STUDENTS OF SMP N 5 PADANGSIDIMPUAN

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Padangsidimpuan, Juli 2021 Declaration Maker EAHF94400660 Linda Sari Lubis Reg. Number 16 203 00013

iv

AGREEMENT PUBLICATION OF FINAL TASK FOR ACADEMY CIVITY

As academic cavity of the State Institute for Islamic Studies Padangsidimpuan, the name who signed here:

Name: Linda Sari LubisRegistration Number: 16 203 00013Faculty/Department: Tarbiyah and Teacher Training Faculty/TBI-1Kind: Thesis

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Padangsidimpuan, July 2021 Signed

Linda Sari Lubis Reg. Num. 16 203 00013

EXAMINERS SCHOLAR MUNAQOSYAH EXAMINITION

Name: Linda Sari LubisRegistration Number: 16 203 00013Faculty: Tarbiyah and Teacher Training Faculty/TBI-1The Tittle of Thesis: The Effect of Word Search Puzzle Game to
Vocabulary Mastery at the VIII Grade Students of
SMP N 5 Padangsidimpuan.

Chief,

hi Siregar, M.Hum 20731 2009 12 2004

Members,

Siregar, M.Hum 820731 2009 12 2004

Dr. Fitriadi Lubis, M.Pd NIP. 19620917 199203 1 002

Proposed:Place: PadangsidimpuanDate: July, 15th 2021Time: 08.30 WIB until finishResult/Mark: 83,25 (A)IPK: 3,56Predicate: Pujian

Secretary,

Ryflubi

Rayendriani Fahmei Lubis, M.Ag NIP. 19710510 200003 2 001

Rayendriani Fahmei Lubis, M.Ag NIP. 19710510 200003 2 001

Sri Rahmadhani Siregar, M.Pd NIDN. 20060§8602



RELIGION MINISTRY INDONESIAN REPUBLIC STATE INSTITUTE FOR ISLAMIC STUDIES PADANGSIDIMPUAN TARBIYAH AND TEACHER TRAINING FACULTY Alamat: Jl. H.T. Rizal Nurdin Km. 4,5Telp. (0634) 22080 Sihitang 22733 Padangsidimpuan

LEGALIZATION

Thesis	: The Effect of Word Search Puzzle Game to
	Vocabulary Mastery at the VIII Grade Students of
	SMP Negeri 5 Padangsidimpuan.
Written By	: LINDA SARI LUBIS
Reg. No	: 16 203 00013
Faculty/Department	: Tarbiyah and Teacher Training Faculty/TBI

The Thesis had been accepted as a partial fulfillment of the Requirement for Graduate Degree of Education (S, Pd.)



Name	: Linda Sari Lubis
Reg. Number	: 16 203 00013
Faculty	: Tarbiyah and Teacher Training
Department	: English Education (TBI-1)
Title of Thesis	: The Effect of Word Search Puzzle Game to Voccabulary
	Mastery at the VIII Grade Students of SMP N 5
	Padangsidimpuan

ABSTRACT

This research discussed about the effect of word word search puzzle game to vocabulary mastery at the VIII Grade Students' of SMP N 5 Padangsidimpuan. The problems of the research were the students cannot used vocabulary correctly and uninterested teaching strategy. As the result, the students are difficult in understanding vocabulary and the students so lazy in opening the dictionary. The aim of this research was to find out the effect of word search puzzle game to vocabulary mastery at the VIII grade students' of SMP N 5 Padangsidimpuan.

This research has three formulations of the problem, they are how the students' vocabulary mastery before using Word Search Puzzle Game is, how the students' vocabulary mastery after using Word Search Puzzle Game is, there is any significant effect of Word Search Puzzle Game to vocabulary mastery or not. The purpose of this research are to know the students' vocabulary mastery before using Word Search Puzzle Game. To know the students' vocabulary mastery after using Word Search Puzzle Game. To examine there is or there is no significant effect of using Word Search Puzzle Game to vocabulary mastery after using Word Search Puzzle Game. To examine there is or there is no significant effect of using Word Search Puzzle Game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan.

This research applied experimental research. The population of this research was the VIII grade of SMP N 5 Padangsidimpuan. The total of population were nine classes. Then, the sample of the research was 2 classes, experiment class (VIII-1 and control calss VIII-2). It was taken after conducting normality and homogeneity test. To collect the data, researcher used test for measuring students' vocabulary mastery. To analysis the data, the researcher used t-test.

After analyzing the data, the researcher found that the mean of experimental class in pre-test was 60,12 and in the post test was 74,71. The proof was 15,36. Then the mean score of control class in pre-test was 55,12 and in the post-test was 58,37. The proof was 3,25. The effect of Word Search Puzzle Game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan was 5,31 where $t_{count} > t_{table}$ (5,31>2,39), it means that hypothesis H_a was accepted and H_0 was rejected. So, it shows that there was a significant effect of Word Search Puzzle Game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan.

Key words : Word Search Puzzle, Vocabulary Mastery

Name Reg. Number Faculty Department Title of Thesis

16 203 00013
Tarbiyah and Teacher Training
English Education (TBI-1)
The Effect of Word Search Puzzle Game to Voccabulary Mastery at the VIII Grade Students of SMP Negeri 5 Padangsidimpuan

ABSTRAK

: Linda Sari Lubis

Penelitian ini membahas tentang pengaruh permainan puzzle pencarian kata terhadap penguasaan kosakata pada Siswa Kelas VIII SMP Negeri 5 Padangsidimpuan. Masalah penelitian ini adalah siswa tidak dapat menggunakan kosakata dengan benar dan strategi pengajaran yang tidak menarik. Akibatnya siswa sulit memahami kosakata dan siswa malas membuka kamus. Penelitian ini bertujuan untuk mengetahui pengaruh permainan puzzle pencarian kata terhadap penguasaan kosakata pada siswa kelas VIII SMP N 5 Padangsidimpuan.

Penelitian ini memiliki tiga rumusan masalah yaitu bagaimana penguasaan kosakata siswa sebelum menggunakan Word Search Puzzle Game, bagaimana penguasaan kosakata siswa setelah menggunakan Word Search Puzzle Game, adakah pengaruh yang signifikan dari Word Search Puzzle Game terhadap penguasaan kosakata atau tidak. Tujuan dari penelitian ini adalah untuk mengetahui penguasaan kosakata siswa sebelum menggunakan Word Search Puzzle Game. Untuk mengetahui penguasaan kosakata siswa setelah menggunakan Word Search Puzzle Game. Untuk mengetahui penguasaan kosakata siswa setelah menggunakan Word Search Puzzle Game. Untuk mengetahui penguasaan kosakata siswa setelah menggunakan Word Search Puzzle Game. Untuk menguji ada atau tidak ada pengaruh yang signifikan penggunaan Word Search Puzzle Game terhadap penguasaan kosakata pada siswa kelas VIII SMP N 5 Padangsidimpuan.

Penelitian ini merupakan penelitian eksperimental. Populasi dalam penelitian ini adalah siswa kelas VIII SMP N 5 Padangsidimpuan. Jumlah populasi sebanyak sembilan kelas. Kemudian sampel penelitian adalah 2 kelas yaitu kelas eksperimen (VIII-1 dan kelas kontrol VIII-2). Itu diambil setelah melakukan uji normalitas dan homogenitas. Untuk mengumpulkan data, peneliti menggunakan tes untuk mengukur penguasaan kosakata siswa. Untuk menganalisis data, peneliti menggunakan uji-t.

Setelah menganalisis data, peneliti menemukan bahwa rata-rata kelas eksperimen pada pre-test adalah 60,12 dan pada post-test adalah 74,71. Buktinya adalah 15,36. Kemudian nilai rata-rata kelas kontrol pada pre-test adalah 55,12 dan pada post-test adalah 58,37. Buktinya adalah 3,25. Pengaruh Word Search Puzzle Game terhadap penguasaan kosakata pada siswa kelas VIII SMP N 5 Padangsidimpuan adalah 5,31 dimana $t_{count} > t_{tabel}$ (5,31>2,39), artinya hipotesis H_a diterima dan H₀ ditolak. Jadi, hal ini menunjukkan bahwa ada pengaruh yang signifikan dari Word Search Puzzle Game terhadap penguasaan kosakata pada siswa kelas VIII SMP N 5 Padangsidimpuan

Kata kunci : Teka-Teki Pencarian Kata, Penguasaan Kosakata

ACKNOWLEDGEMENT

First of all, let the researcher says a lot of praise and Alhamdulillah to Allah SWT, as the best Creator of everything in the world, and as the most Merciful who has given to the researcher the health, time, knowledge, and chance so the researcher can accomplish her thesis entitled "The Effect of Word Search Puzzle Game to Students Vocabulary Matery at The VIII Grade Students of SMP Negeri 5 Padangsidimpuan". The Second, shalawat and salaam upon to the prophet Muhammad SAW that had guided the human beings from the bad character in Jahiliyyah era into the good one, which has created by knowledge like this era.

It is a pleasure to acknowledge the help and contribution to all of lecturers, institution, family and friends who have contributed in different ways hence this thesis is processed until it becomes a complete writing. In the process of accomplishing this thesis, I got a lot of guidance, helping, inspiration and motivation from many people. Although, in this opportunity I would like to express my deepest gratitude to the following people:

 Mr. Dr. Fitriadi Lubis, M.Pd., as my first advisor and Mrs. Fitri Rayani Siregar, M.Hum., as the Chief of English Department and as my second advisor who have guided me for finishing this thesis, who have been the great advisors for me and gave me much idea and suggestion sincerely and patiently during the progress of writing this thesis. Thank you so much for everything may Allah always bless both of you, give health, and may Allah guide you to His Jannah. Aamiin.

- Mr. Prof. Dr. H. Ibrahim Siregar, M.CL., as the Rector of IAIN Padangsidimpuan.
- Mrs. Dr. Lelya Hilda, M.Si., as the Dean of Tarbiyah and Teacher Training Faculty. Mrs. Rayendriani Fahmei Lubis, M.Ag., as my academic advisor who has given me motivations.
- 4. All lecturers and all the cavities academic of IAIN Padangsidimpuan who had given so much knowledge and helped during I studied in this institute. Especially for English lectures, who have given much knowledge for me.
- 5. Headmaster of MTS Baharuddin who has given me permission to carry out the research.
- 6. My beloved parents (Samsul Lubis and Masdelina Nasution) who always give me a lot of love, affection, attention, and big spirit how to be patient and survive in all condition by my own self, who always give me motivation to achieve my dream, and who have been my inspiration. Hope you always health, happily ever after and may Allah guide us together to His Jannah. Aamiin. My beloved sisters (Desi Afridah Lubis, S.Pd, Nisma Sari Lubis, Roslaini Lubis, Ida Roma Ito Lubis) and my beloved young Brother (Irwan Saleh Lubis) who always give me much love and always support me.

- 7. All of my beloved friends; Dizky Hadian Dalimunthe, Jufri Saputra Parinduri, Suaersih Nainggolan, Amara Halawatunnisa Hsb, Yuni Indah Lestari Hutagaol, Ernidah Hsb, Riska Hidayanti Hrp, Fitri Hasanah Nst, Sasmita Tarihoran, Wahyuni Marpaung) who have supported and helped me in all condition.
- 8. All of my lovely friends in TBI 1 who have supported and helped me to finish my thesis at the time and also be my spirit in writing this thesis. All of my friends in IAIN Padangsidimpuan, Especially in TBI 2 and TBI 3, thank you so much for your support and help and also all of the people who have helped me to finish my study that I can not mention one by one. Good luck for you.

I realize this thesis cannot be considered perfect without critiques and suggestions. Therefore, it is such a pleasure for me to get critiques and suggestions from the readers to make this thesis better.

Padangsidimpuan, June 2021 Researcher

Linda Sari Lubis Reg. No. 16 203 00013

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CHAPTER I

INTRODUCTION

A. Background of The Problem

Vocabulary is one of the important aspect in teaching a language. Vocabulary is core component of language proficiency and provides much of the basic for how well learners listen, speak, read, and write. It is an essential role in creating understanding of language through what the students learning in school. It helps the students to communicate successfully.

In High School level, listening, speaking, reading and writing are skills that should be mastered by students. However, before mastering those skill, students need to master vocabulary. Without having sufficient lexical knowledge, they will not be able to listen, speak, read or write in English well.

Various types of effort has been done by the government to improve the quality of education. School also make an effort to raise the students ability, the shool has prepared equipment to support the students activities in study. The teacher has an important role in teaching learning process. Teacher gives their knowledge and share some motivation to make students success in education.

In vocabulary mastery, many students at grade VIII in SMP N 5 Padangsidimpuan faced many problems in learning vocabulary, so that they are very difficult to understand all of the materials that the teacher explained. The problems found in SMP N 5 Padangsidimpuan during preresearch. The teacher of eighth grade of SMP N 5 Padangsidimpuan said:

The students have lack motivation, if the teacher gives exercise or material in class, partly of them always calm down and they did not do what the teacher has given. The teacher did not know how students have understand or not. It makes one problematic in learning English, especially in teaching vocabulary.¹

It means that the teacher's strategy with the material has not been achieved optimally. Because, the teacher did not use a method while teaching. So, the vocabulary of students still poor. To increase the vocabulary of students, the teacher needs to use several methods. This method can make students easier to understand English, especially vocabulary.

There are some factors that influence student's vocabulary mastery. They are "method, media, song, picture, game, etc". This research only taken a game for discussing. "Game is an interestig and enjoyable activity with a set of rules which is played individully or in group".² Game can make the teaching learning process enjoyable and fun for students.

Games can be found to give practice in all skill and components of language and can be used for different types of communication.³ Learning vocabulary through games are effective in helping students to improve

¹English Teacher "Private Interview on November 2nd 2020 in SMP N 5 Padangsidimpuan"

²H Vossoughi, "Using Word Search Puzzle Games for Improving Vocabulary Knowledge of Iranian EFL Learners" 1, no. 1 (2009): 79–85.

³Vossoughi.

their vocabulary building skills.⁴ To assess the effectiveness of learning vocabulary through games in the clssroom, it is important to find out whether learners benefit from such experience. Morever, it is crucial to see whether games can be effective in helping learners feel more comfortable and interested in the subject of vocabulary.

There are many kinds of game that can be applied in teaching process including in teaching vocabulary. Such as "search games, matching games, guessing games, role-play games and much more".⁵ These game can be used in learning vocabulary. In this research, the researcher chose "search game" in teaching vocabulary and one of search game that can be used in this research is "word search puzzle game".

Word search puzzle game is a word game that consists of the letters of words placed in a grid, which usually has a rectangular or square shape. The objective of this puzzle is to find and mark all the words hidden inside the box.⁶ This game is good to review general vocabulary, without ever tiring the students.

The role of word search puzzle game is the students need to find the listed hidden words that may be hidden in any direction: horizontally, vertically, diagonally, forwards and backwards. By doing this game, students would get new method in learning vocabulary, they could find a

⁴Nguyen Thi Thanh Huyen and Khuat Thi Thu Nga, "The Effectiveness of Learning Vocabulary Through Games," *Asian EFL Journal*, n.d., 17, https://www.academia.edu/upgrade?feature=analytics.

⁵Ni Made Nila Lohita Anggreini, "The Effectiveness of Word Search Puzzle in Vocabulary Mastery at Seventh Grade of SMPN 12 Mataram in Academic Year 2014/2015," 2017.

⁶Ni Made Nila Lohita Anggreini.

lot of new vocabularies in a fun way, and it could enhance their word knowledge.

Based on above explanation, the researcher interested to carry out a research under a title "The Effect of Word Search Puzzle Game to Vocabulary Mastery at The VIII Grade Students of SMP N 5 Padangsidimpuan".

B. Identification of The Problems

Vocabulary mastery is one of the factors to master English as foreign language. It means that the students have the ability in understanding and using the word and meaning. In vocabulary mastery, many students at grade VIII in SMP N 5 Padangsidimpuan faced many problems in learning vocabulary, so that they are very difficult to understand all of the materials that the teacher explained

Students' capability in learning vocabulary is influence by many factors such as method, media and game. Game means in this research is word Search Puzzle game.

C. Limitation of The Problems

In vocabulary mastery, many students at grade VIII in SMP N 5 Padangsidimpuan faced many problems in learning vocabulary, so that they are very difficult to understand all of the materials that the teacher explained. In this research doesn't discuss all the factors of vocabulary mastery above, this research only focus on the word search puzzle game (Part of Body).

This research focused on using word search puzzle game to teach vocabulary because word search puzzle game could make the teaching learning process fun.

D. Formulation of The Problems

Based on background and identification above, researcher formulated the problem as follow:

- 1. How is the students' vocabulary mastery before using word search puzzle game at the VIII grade students of SMP N 5 Padangsidimpuan?
- 2. How is the students' vocabulary mastery after using word search puzzle gameat the VIII grade students of SMP N 5 Padangsidimpuan?
- 3. Is there a significant effect of using word search puzzle game to students' vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan?

E. Purpose of The Research

From above formulation of the problem, the purposes of this research were:

- 1. To know the students' vocabulary mastery before using word search puzzle game at the VIII grade students of SMP N 5 Padangsidimpuan.
- 2. To know the students' vocabulary mastery after using word search puzzle game at the VIII grade students of SMPN 5 Padangsidimpuan.

 To examine the significant effect of using word search puzzle game to students' vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan.

F. Significant of The Research

The significance of this research expected to be useful for:

- 1. For the English teacher as an information in teaching vocabulary
- 2. For the headmaster as an information about students ability in learning vocabulary.
- 3. For the readers as an information and can use for references in the future.

G. The Outline of Thesis

The systematic of this research is divided in to five chapters. Each chapter consists of many chapters with detail as follow:

In chapter one, it consist of background of the thesis problem, identification of the problem, limitation of the problem, formulation of the problem, purposes of the research, significant of the research, and thesis outline. This chapter talking about the problems that found in the field of research, the questions of research and the objective of the research.

Next, in chapter two, it consists of theoretical description of vocabulary and word search puzzle game. Then, review of related findings, conceptual framework, and hypothesis.

Furthermore, in chapter three, consists of research methodology which is consist of the time and place of the research, the research design, population and sample, definition of operational variable, the instrument of research, validity and reliability of instrument and the last technique of analyzing data.

Chapter four is result of the research or research finding which consist of teaching vocabulary mastery in pre test, teaching vocabulary mastery in post test, the hypothesis testing, discussion, and the treats of the research, this chapter talking about the result of the research.

Finally, chapter five contains conclusion, and suggestion.

CHAPTER II

LITERATURE REVIEW

A. Theoritical Description

1. Vocabulary

a. Definitions of Vocabulary

Vocabulary is one of the language aspects which should be learnt. Learning vocabulary is important because we are able to speak, write, and listen nicely have to know vocabulary first.⁷ Vocabulary is basic part in English that have to be mastered by English students. With vocabulary students are able to speak English. In addition vocabulary is also needed by students to improve English skills; listening, speaking, reading, and writing. Therefore, students who lack of vocabulary will have difficulty in understanding the text, speaking, and also writing their ideas.⁸

David Nunan in Second Language Teaching Learning stated that a vocabulary is more than list of target language words. As apart of the language system, vocabulary intimately interrelated with grammar. In fact, it is possible to device the lexical system of

¹Sri Nardani, Eka Sustri Harida, and Fitri Rayani Siregar, "The Effect of Watching Film to Students' Vocabulary Mastery at Grade XI SMK Negeri 1 Padangsidimpuan," *English Education* 02, no. 01 (2014): 88–106, http://www.e-journal.iain.ac.id.

²Novia Lestari et al., "The Use of Crossword Puzzle to Improve Vocabulary Mastery Of The Fifth Grade Students" 2, no. 2 (2018): 71–79.

most language into "grammatical word" such as preposition, articles and adverb and so on.⁹

In other hand, Vocabulary is central to English language teaching because without sufficient vocabulary students cannot understand others or express their own ideas.¹⁰

Based on the definitions above, it can be concluded that vocabulary is stock of words in a language used by the people to communicate with other people, it is also used by the people to express their feelings.

b. The Principles of Vocabulary

There are many principles in teaching and learning vocabulary as follows: aims, quantity, need, situation presentation, meaningful presentation, presenting in context, learning vocabulary, inference (guessing) procedure in vocabulary learning, technique in teaching and learning vocabulary.¹¹

Wallace in Mulbar indicates nine principles of teaching and learning vocabulary such as follows:

1) Aims

In the teaching vocabulary, we have to be clear about our aims how to explicitly we must decide the vocabulary that we expect the learner to be able to do. If it is not clear at this point, it will

⁹David Nunan, *Second Language Teaching and Learning* (Boston USA: Heinle and Heinle, 1999), 188.

¹⁰Ahmad Syarofi Al-Furqon, "The Effect of Word Search Puzzle Game in Teaching Vocabulary to the First Grade Students of SMPN 3 Proppo," *Wacana Didaktika* 5, no. 2 (2017): 101–8, https://doi.org/10.31102/wacanadidaktika.5.02.101-108.

¹¹Hernawati M, "Building Up the Studets' English Vocabulary Trough Fanny Stories At Smp Negeri 2 Duampanua Kab. Pinrang," *ETERNAL (English, Teaching, Learning and Research Journal)* 2, no. 2 (2015): 201–15, https://doi.org/10.24252/eternal.v12.2015.a4.

be difficult to assess how success full the vocabulary learning has been.

2) Quantity

Having decided what are involved in vocabulary learning. We may them then decide on the quantity to be taught the number of few students can learn. If we expect the words that will be tough become part of students⁶ active vocabulary, the put number of factors varying from class to class and from learner to learn. When there are too many new words, the students may be confused, discouraged and frustrated.

3) Need

The vocabulary that taught the students depend on the course book or syllabus but the teacher should consider the aims of the course and the individual lesson.

- 4) Situation presentation
 - The words presented are appropriate to the student"s situation.
- 5) Meaningful presentation

The students must have a clear and specific and understanding of what donates or refers to his required that the presented in such a way the denotation and references are perfectly clear.

6) Presenting in context

The words very seldom occur in isolation, so the students have to know the usual context that the word occurs in.

- 7) Learning vocabulary and in the mother tongue and in the large language teaching the words of the target language the teacher can compare simulating and differences of the words.
- 8) Inference (guessing) procedure in vocabulary learning

Inference is also one of strategies in learning in which the learners are heard on a practice by using a definite knowledge tohave clear understanding the word they learn. The students infer the meaning of words by listening or reading them used in certain situation.

9) Frequent exposure and Repetition

A certain amount of repetition is necessary until there is a proof that the students have learn the largest word. The simply way of the checking that the students have done the learning is to see whether or not the students can recognize the target words and identify their meanings. If the words have to be part of the students" productive vocabulary, they must be given an opportunity to use them often as necessary for them to the words at all with the correct pronunciation and indentify their meaning.¹²

¹²Hernawati, "Building Up The Students' English Vocabulary Trough Fanny Stories at SMP Negeri 2 Duampunua Kab. Pinrang" I, no. 02 (2015): 201–15, http://journal.uin-alauddin.ac.id/index.php/Eternal/article/view/2382/2324.

From the explanation above these types must be understood by the teachers, in line with the media, strategy and method that the use.

c. The Importance of Vocabulary

The importance of vocabulary is demonstrated daily in and out the school. In classroom, the achieving students possess the most sufficient vocabulary.¹³ Vocabulary mastery is very important in learning English. With having a large vocabulary, it will help students learn the four basic skills of English, they are reading, speaking, writing, and listening. Without having large vocabulary, the students will be impossible to easy to study it, and without having many vocabularies it is impossible to make sentences in communication and express their feelings. In communication through language, vocabulary holds the most important role.

Related with the statement above, Tarigan in Dwi Ema said "the quality of language depends clearly on the quantity and the quality of mastering vocabulary".¹⁴ To achieve this goal, the students must master of English vocabulary and structure as well.

From these definitions, it can be concluded that learning vocabulary is very important. Because without having many vocabulary, the students will be impossible to improve their

¹³Mofareh Alqahtani, "The Importance of Vocabulary in Language Learning and How To Be Taught," . . *International Journal of Teaching and Education* III, no. 3 (2015): 21–34, https://doi.org/10.20472/TE.2015.3.3.002.

¹⁴H Dwi Ema, *Pictures an Attractive Media in Teacing Vocabulary* (Tulungagung: STAIN, 2001), p. 3.

english skill; listening, speaking, reading and writing, and they are impossible to communicate well.

d. Kinds Of Vocabulary

Some experts divide vocabulary into two types: active and passive vocabulary. Harmer distinguishes between these two typesof vocabulary. The first type of vocabulary refers to the one that the students havebeen taught and thatthey are expected to be able to use. Meanwhile, the second onerefers to the words which the students will recognize when they meet them, but which they will probably not be able to pronounce. Haycraft, quoted by Hatch and Brown, indicate two kinds of vocabulary, namely receptive vocabulary and productive vocabulary.¹⁵

1) Receptive Vocabulary

Receptive vocabulary is the set of words for which an individual can assign meaning when listening or reading. It is about knowing a word involves being able to recognize when the students heard.

2) Productive vocabulary

Productive Vocabulary is the set or words that an individual can use when writing or speaking. It is about knowing a word involves being able to pronounce the word, how to write and spell it, and how to use grammatical pattern and it also involves

 $^{^{15}\}mathrm{Alqahtani},$ "The Importance of Vocabulary in Language Learning and How To Be Taught."

not using the word to stand for the meaning it represents and being able to think that is suitable for the word.¹⁶

Based on quotation above, the writer can take a conclusion about receptive or passive vocabulary will be easy to understand by using listening and reading to remember words on vocabularies, while productive or active vocabulary will be easy understand by using concentration pattern and grammatical word to get vocabularies.

e. Classification of Vocabulary

Nation classifies vocabulary into four categories based on how frequently it occurs in the language (its frequency) and how widely it occurs (its range). The four categories of vocabulary are namely high frequency words, academic words, technical words, and low frequency words.¹⁷

1) High Frequency Words

There is a small group of high frequency which very important because these words cover a very large proportion of the running words in spoken and written texts and occur in all kinds of uses of the language.¹⁸

2) Academic Words

The text is from academic textbook and contains many words that are common in different kinds of academic text:

¹⁶Ahmad Syarofi Al-Furqon, "The Effect of Word Search Puzzle Game in Teaching Vocabulary to the First Grade Students of SMPN 3 Proppo, "*Wacana Didaktika* 5, no. 2 (2017): 101-7."

¹⁷Sudarman Nasir and Sumalee Chinokul, "The English Vocabulary Size and Level of English" 4 (2018): 1–15.

¹⁸Nasir and Chinokul.

policy, phase, adjusted, sustained. Typically these words make up about 9% of the running words in the text.¹⁹

3) Technical Words

The text contains some words that are very closely related to the topic and subject of the text. These words include indigenous, regeneration, pod carp, beech, rimy, and timber. These words are reasonably common in this topic area but no so common else where. As soon as we see them we know that topic is being dealt with. Technical words like this typically cover about 5% of the running words in a text.²⁰

4) Low Frequency Words

This group included words like zoned, pioneering and perpetuity, aired and pastoral. They make up over 5 % of the words in an academic text. There are thousands of them in the language, by far the biggest group of words. They consist of the technical words for other subject areas, proper nouns, words that almost got the high –frequency list and words that we rarely meet in our use in the language.²¹

Based on quotation above, the writer can take a conclusion

about high frequency words are quite simply those words which occur most frequently in written material, for example, "and", "the", "as" and "it". They are often words that have little meaning on their own, but they do contribute a great deal to the meaning of a sentence. Academic words, these words are common in academic texts, but they are not so common in everyday writing or speech. This is why they are not so easy to learn, but why at the same time, it is very important for students to learn them. Technical words are words that talk about

¹⁹Nasir and Chinokul.

²⁰Nasir and Chinokul.

²¹Nasir and Chinokul.

technology and almost science too can be referred as technical words, and low frequency words are words that uncommonly occur in a language, such as "apopemptic," "diaphoretic," and "rebarbative" in English.

f. Aspect of Vocabulary

Vocabulary is one of the language aspects which should be learnt. Learning it is important because in order to be able to speak, write, and listen learners have to know vocabulary first. A person said to 'know' a word if they can recognize its meaning when they see it. It means that in learning vocabulary learners have to know the meaning of it and also understand and can use it in sentence context. The concept of a word can be defined in various ways, but three significant aspects teachers need to be aware of and focus on are form, meaning, and use.

According to Nation, the form of a word involves its pronunciation (spoken form), spelling (written form), and any word parts that make up this particular item (such as a prefix, root, and suf-fix). An example for word parts can been seen with the word uncommunicative, where the prefix un-means negative or opposite, communicate is the root word, and -ive is a suffix denoting that someone or something is able to do something. Here, they all go together to refer to someone or something that is not able to communicate, hence uncommunicative.²²

Nation stated that meaning encompasses the way that form and meaning work together, in other words, the concept and what items it refers to, and the associations that come to mind when people think about a specific word or expression. Use, Nation noted, involves the grammatical functions of the word or phrase, collocations that normally go with it, and finally any constraints on its use, in terms of frequency, level, and so forth. For form, meaning, and use, Nation declared there is both a receptive and productive dimension.

According to Lado as cited in Mardianawati, "there are some aspects of learning vocabulary. They are meaning, spelling, pronunciation, word classes, and word use".²³

1) Meaning

In learning foreign language, students should know the meaning of word. Knowing the meaning of the word will make students easier to communicate on written or oral.²⁴

2) Spelling

Spelling is the writing of a word or words with the necessary letters and diacritics present in an accepted standard

²²Michael Lessard-Clouston, Vocabulary and Its Importance in Language Learning, *Teaching Vocabulary*, 2013. ²³ Isterya and Hasan Basri, "Improving Vocabulary Mastery Through Text Twist Game,"

E-Journal of English Language Teaching Society (ELTS), no. 1 (2003): 1-9.

²⁴ Isterya and Basri.

16order and an arrangement of letters that form a word or part of a word the process of forming words by putting letters together. In learning vocabulary, spelling is very important. It can tighten the connection between sound and letters. Spelling and listening also have a common factor, proficiency with language. There are some important points that should be considered when teaching vocabulary that is form (pronunciation and spelling). The learners have to know what a word sound is like (its pronunciation) and what it looks like (its spelling).²⁵

3) Pronunciation

This will mean learning some symbols which are different from the letters of the English alphabet. Students really want to be able to speak English well with a good pronounciation so that they can communicate with others without hindrance. Prounoncing the words also enables students students to remember it longer and identify it more readly when it is hear or read.²⁶

4) Word Classes

Word class (alternatively part of speech) describes the category of grammatical behavior of a word.²⁷ Word class usually abbreviations n: noun, adj: adjective, etc., whether a

²⁵ Isterya and Basri.

²⁶ Isterya and Basri.

²⁷Laura L. Meyer and Norbert Schmitt, "Vocabulary in Language Teaching," *TESOL Quarterly* 36, no. 2 (2002): 235, https://doi.org/10.2307/3588334.

noun is countable or uncountable, and whether a verb is normally transitive (needs an object) or intransitive (doesn't need an object).²⁸

5) Word Use

Word use is how a word, phrase, or concept is used in a language. Word use may also involve grammar and thus become the subject of profound analysis.²⁹

Based on statement above the researcher, it could be inferred that the learner could not did well in comprehension without large vocabulary. So, vocabulary is the one aspect should be learn to the students in English learning. Aspect of vocabulay could be learned students were divided into five such as meaning, spelling, pronounciation, word classes and word use.

2. Word Search Puzzle Game

a. The Definition of Word Search Puzzle Game

Word search puzzle game is a game in the search for the words, either vertically, horizontally, and diagonally. This game can help students increase their vocabulary and make them happy in doing search puzzle game of words. Word-search-puzzle game is one of many instructional games that reinforce word-level onto a grid and persuades the class to make suggestions for the puzzle

 ²⁸ Isterya and Basri, "Improving Vocabulary Mastery Through Text Twist Game."
 ²⁹ Isterya and Basri.

clues.³⁰ According to Hornby, 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.³¹

A word search puzzle is a word game that is letters of a word in a grid that usually has a rectangular or square shape. The objective of this puzzle is to find and mark all the words hidden inside the box. The words may be horizontally, vertically, or diagonally. Often a list of the hidden words is provided, but more challenging puzzles may let the player figure them out. Many word search game have a theme to which all the hidden words are related. The puzzle itself kind to play that can be used to practice certain language features at certain phases in learning process in order to develop communication skill.

b. The Procedure of Word Search Puzzle Game

The procedure of word search puzzle game is very simple and easy. Word search puzzle game are also fun and easy to make, the procedure of teaching vocabulary through the words search puzzle game can be done with the steps relevant, they are:

1) The teacher gives the word search puzzle photocopied to the student individually or in small group that contains the letter of word to be found.

³⁰Vossoughi, "Using Word Search Puzzle Games for Improving Vocabulary Knowledge of Iranian EFL Learners."

³¹Hornby, A.S. 1995, *Oxford Advanced Learner's Dictionary*, (New York: Oxford University Press, 1995), p.947.

- 2) The teacher explain about the game's rule that the students have to find all of the letter are hidden in the grid. Words will be hidden inside the letters, written horizontally and vertically.
- 3) The students should circle the word when they find them.
- 4) After their work are finished, they correct together.³²

By doing those activities, students will feel comfortable in learning because they can play while learning. Furthermore, their vocabulary will be increased too.

c. The Advantages and Disadvantages of Word Search Puzzle Game

Models make a good match is used when the teacher wants the students to think of creativity, because through this kind of learning students are expected to able to match the question with an answer that is in the puzzle, therefore, the advantages and disadvantages of this model are:

- 1) The advantages of this model are:
 - a) Word search puzzles keep the brain active.
 - b) Word search puzzles increase the vocabulary. Vocabulary building is one of the biggest benefits of solving word searches.
 - c) Word search puzzles help to learn new languages.
 - d) Word searches are a great way to improve your spelling. Word search could actually help you *learn* to spell better by actively looking for the set of letters in order and the puzzle helps to cement their spelling in your brain.
 - e) Word search puzzles train our brain to recognize patterns the ability to identify letters, faces, and all manner of objects is a basic cognitive skill (the others include such useful games as decision-making, focus and concentration, memory, problem solving, and categorization).

³² Ambiyatul, "The Influence Of Using Word Search Puzzle Game Towards Students' Vocabulary Mastery," 2018.

- 2) The disadvantages of word search puzzle game
 - a) Make a box that varies need creativities of a teacher.
 - b) Very often found between the boxes provide does not match the existing question.
 - c) Make questions that require answer that definitely requires a high capability of teaching.³³

Based o the explanation above, there are so many benefits of word search puzzle game in learning activities. However, there are some disadvantages of word search puzzle game. It can be done by creative teacher. It can increase the students' vocabulary mastery. To make word search puzzle game in word search puzzle, some roles used the researcher, such as using main concept, sub concept, and lines as connection between ideas. Therefore, word search puzzle game is a good way to learn vocabulary mastery.

3. Teaching Vocabulary by Using Word Search Puzzle Game

Teaching vocabulary through word search puzzle is not only in written activities and fun so that it would make the students passive learners but also process of the teaching these vocabularies at to be applied in active activities in a form of communication the students will be taught how memorize for a spelling test to do a word search.³⁴ To success in teaching vocabulary through word search puzzle, the teacher should have different technique for different level. Teaching vocabulary through word search puzzle enables the students to find out

³³Istarani, 58 Model Pembelajaran Inovatif (Medan: Media Persada, 2012), 181-84.

³⁴Moh Firmansyah, 'Increasing Students' Vocabulary of VII Grade At SMP N 3 Tolitoli Through Word Search Puzzle', 3.2 (2015).

to information or guests the meaning on unfamiliar words. So, the word search puzzle can help the students. The students may be happy and interesting in learning and they always try to know the new words from word search puzzle.

In teaching vocabulary teacher must be creative. The teacher can use pictures, or play a game. Then, here the writer want to emphasize to the teacher for use game in teaching vocabulary. One way to make students enjoy in teaching vocabulary is by using game.

One way to make students enjoy in learning vocabulary is by using games. There are so many games to teach English. In this research the researcher uses Word Search Puzzle Game to teach vocabulary. Word Search Puzzle Game is one of kind technique that can use to make teaching learning process more fun to the students. Teaching vocabulary is the process of mastering new word to become our own words.

Therefore, the other said that games are useful and meaningful ways for the students and the teacher in teaching learning process. Beside that, Ayu and Rini explained the purpose of games.³⁵ They are as follows:

- 1) For teacher, games can make them easy to give explanation about the lesson and help them to make the class more active.
- 2) For students, they more easy to understand the material, the lesson for them not bored, help them to remember the material

³⁵Rini Hayati, *Teaching English Vocabulary for Children 8 to 10 Years Old by Using Games* (Jakarta, 2003).

easy and fast, they become active in class, and game can growth up the solidarity and sportsmanship between them.

Teaching vocabulary by using ord search puzzle game can be seen

in this table below:

Table. 1

Teaching Vocabulary by Using Word Search Puzzle Game

Teacher	Procedures	Students
A. Pre- Teaching		
1. Teacher open the class by greeting and prepare the students to pray before learn.		 Students listen to the teacher. Students answer the teacher's greeting and pray before learn.
2. Teacher check the students attendence list.		 Students listen to the teacher. Students state the attendence by saying present.
3. Teacher ask the students about the last material and relate it with the new material.		1. Students answer the teacher questions and the last material.
4. Teacher tell about the new material.		 Students listen carefully to the teacher. Students add some notes from the teacher.
5. The teacher gives the word search puzzle photocopied to the student.	1. Gives the word search puzzle photocopied to the students.	1. Students pay attention to the teacher explanation.
B. While- Teaching		
1. The teacher explain about the game's rule that the students have to find all of the letter are hidden	2. Students have to find all of the letter are hidden in a grid	 Students pay attention to the teacher. Students remaind the words

	in the grid.		
2.	The teacher instructs the students to circle the word when they find them. Words will be hidden inside the letters, written horizontally and vertically.	3. Students should circle the word when they find them	 Students will search the hidden word. Students will circle the word if they find them.
3.	The teacher gives 30 minutes to solve the puzzle	4. They must solve the puzzle and they correct together after their work are finished.	 Students listen to the teacher The students identify the letter word by word and find the correct word.
C. 1. 2.	Post- TeachingTeacheraskthestudentsabouttheirunderstandingaboutthe material.Theteachermightconcludeor	1. Feedback	 Students answer the teacher's question and tell their problem. Listen to the teacher. The students make a
	summarize the lesson by himself or together with the students.		summarize while the teacher conclude the lesson.

Based on statement above the teaching english actually was simple and fun. In this case not easier, but must to had quality with the education. One of the games which using in this research was word search puzzle game. The purpose of play this game was to introduce some new words to the students of junior high school.

B. Conventional Teaching

Conventional teaching is the strategy or the way usually used by the teachers to teach the vocabulary to the students. Conventional teaching or traditional teaching refers to a teaching method involving instructors and the students interacting in a face-to-face manner in the classroom. These instructors initiate discussions in the classroom, and focus exclusively on knowing content in textbooks and notes. Students receive the information passively and reiterate the information memorized in the exams.³⁶

The teacher of SMP N 5 still uses the conventional teaching in

teaching-learning process, in can see on the following text:

- a. The teacher asks the students to open the textbook.
- b. The teacher reads the instrument about the material in the textbook.
- c. The teacher explains about the material.
- d. The teacher gives some examples about the material and asks the students understanding about the material and the example.
- e. The teacher gives the task about the material to the students.³⁷

The conventional also has some advantages and disadvantages.

- a. Here some advantages. Here overuse of the conventional teaching:
 - 1. Teachers easily master class.
 - 2. The material is easy to organize.
 - 3. The conventional method could be followed by a large number of students.
 - 4. The conventional method is easy to prepare and carry it out.
 - 5. The teachers easily teach lessons well.³⁴
- b. The conventional method also has some disadvantages. The

disadvantages of conventional teaching as follows:

³⁶ Yap Wei Li, "Transforming Conventional Teaching Classroom to Learner-Centred Teaching Classroom Using Multimedia-Mediated Learning Module," *International Journal of Information and Education Technology* 6, no. 2 (2016): 105–12, https://doi.org/10.7763/ijiet.2016.v6.667.

³⁷English Teacher, "Private Interview., November 04th 2020 in SMP N 5 Padangsidimpuan," n.d.

³⁸Wahyuniati, "Keefektifan Model Kontekstual Untuk Meningkatkan Keterampilan Menulis Narasi" (Universitas Muhammadiyah Purwokerto, 2013), https://doi.org/10.1210/jcem.76.6.8501142.

- 1. The conventional teaching makes the students feel boring when used at all times and too long.
- 2. The teacher is difficult to conclude that students understand and are interested in learning-teaching process.
- 3. The conventional teaching makes the students to be passive.³⁹

From the description above, it is conclude that the conventional method has some advantages that help the teacher to teaching speaking. The disadvantages of this method have not big effect to reduce the method.

The disadvantage of conventinal teaching is that the lecturers' explanation takes a long time, often becomes boring. Because active interactions rarely occur, there is no benchmark that the lecture material presented is interesting, and makes the lecturer not objective in assessing the lecture he is doing.⁴⁰

C. Review of Related Findings

This research is not as beginner in this title but there is the researched had researched before which relevant with title below:

Khoirul Bahri Lubis in his script: the effect of using crossword puzzle in reinforcing activity toward students' vocabulary mastery.⁴¹ He

³⁹ Wahyuniati, "Keefektifan Model Kontekstual Untuk Meningkatkan Keterampilan Menulis Narasi" (Universitas Muhammadiyah Purwokerto, 2013), https://doi.org/10.1210/jcem.76.6.8501142.

⁴⁰ Surya Eka Priyatna, "Pendekatan Realita Perkuliahan Pada Media Online," *Alhadharah* 15, no. 30 (2017): 1, https://doi.org/10.18592/alhadharah.v15i30.1221.

⁴¹Khoirul Bahri Lubis, "The Effect of Using Crossword Puzzle in Reinforcing Activity Toward Students Vocabulary Mastery at Fifth Grade of Islamic Elementary School" (IAIN Imambonjol Padang, 2011).

found that using crossword puzzle in reinforcing activity is very useful toward the improvement of students.

The researcher Munika Duri with the titled "The use of bilingual crossword puzzle toward students' vocabulary mastery of fifth grade in MI Salafiyah-Selopuro academic year 2012/2013. Here she used bilingual crossword puzzle as teaching media. The result of the study showed that the students get better achievement in vocabulary score after taught by using the treatment. It found that the use of vocabulary by bilingual crossword puzzle can improve students' vocabulary. The writer used pre experimental research with the quantitative approach.⁴² So, there are three steps like pretest, treatment, and posttest with the design in the form of one group.

Other research with the titled "The effectiveness of using word square game towards the students' mastery of vocabulary the second grade at SMP Negeri 2 Pakel year 2012/2013". The writer is Pujiastuti.⁴³ This research used pre experimental with one group pretest-posttest design. This research was using word square game in the teaching vocabulary. This research was succeeded and shows a better result.

Tri Riski Hasibuan in her script was improving students' vocabulary mastery through crossword puzzle at SD Muhammadiyah 1 Padangsidimpuan has a significance, based on the result of the classroom

⁴²Munika Duri, "The Use of Bilingual Crossword Puzzle Toward Students' Vocabulary Mastery of Fifth Grade in MI Salafiyah" (IAIN Tulungagung, 2013).

⁴³Puji Astuti, "The Effectiveness of Using Word Square Game Towards the Students Mastery of Vocabulary the Second Grade at SMP 2 Pakel" (IAIN Tulungagung, 2013), repo.iain-tulungagung.ac.id/4917/.

action research, it was concluded that crossword puzzle technique improved students' vocabulary mastery at grade VI SD Muhammadiyah 1 Padangsidimpuan.⁴⁴

So that, from the description above, the researcher concluded that many method can increase students' vocabulary mastery. Next, the writer hopes that word search puzzle game method can increase the students' vocabulary mastery in word search puzzle, so that the writer interested to make the research about "The effect of word search puzzle game to vocabulary mastery at the VIII Grade students of SMP N 5 Padangsidimpuan".

D. Conceptual Framework

Vocabulary is an important part of language there will be no language aspects which should be learnt. Vocabulary is important part of language to speak, write, and listen without vocabulary will not a language or sentence. So, since we can see, speak, know about we are around will there vocabulary, through game will find vocabulary or all word of listen, look, and speak, one of games to increase vocabulary is word search puzzle game.

Word search puzzle game is a game in which you have to fit the words across, down or diagonal. You find the words by solving clues word search puzzle is a puzzle used in English teaching and learning process, it is a table with some random of letters, where the students have to find the

⁴⁴& Fitri Rayani Siregar Seri Mawar, Eka Sustri Harida, "Improving Students' Vocabulary Mastery Through Word Square Modeling at Grade VII SMP Negeri 5 Padangsidimpuan" 03, no. 2 (2017): 67.

words in random letters, students must draw a line on each word across, down or diagonal.

The concept of Word Search Puzzle Game is to make the students easier to learn vocabulary. To know the effect of this there are two classes used as the sample of collecting data for this research. The classes are pretest and post-test.

The first step is pre-test, it give to the students to find the students ability before the treatment. After that, Word Search Puzzle Game used to teach the experimental class and the teacher techniques used to teach the control class. The last, post-test to find out the effect of Word Search Puzzle Game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan.

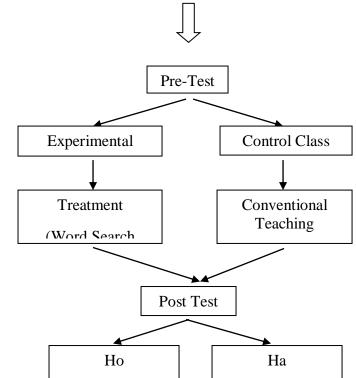
In this research there are Ho and Ha to see, there is the significant effect of word search puzzle game to vocabulary mastery at the VIII grade of SMP N 5 Padangsidimpuan or there is no the significant effect of word search puzzle game to vocabulary mastery at the VIII grade of SMP N 5 Padangsidimpuan.

Based on the above, conceptual framework can be seen from the figure below:

Figure 1. Conceptual Framework



- 1. The students are less in vocabulary
- 2. The students are low in memories the words
- 3. The students do not know the meaning of the words
- 4. The students difficult to read and speak the words



E. Hypothesis

The hypothesis of this research:

- 1. Ha: there is the significant effect of word search puzzle game to vocabulary mastery at the VIII grade of SMP N 5 Padangsidimpuan.
- 2. Ho: there is no the significant effect of word search puzzle game to vocabulary mastery at the VIII grade of SMP N 5 Padangsidimpuan.

CHAPTER III

RESEARCH METHOD

A. The Place and Time of the Research

The research was conducted at SMP N 5 Padangsidimpuan, at Jln. Perintis Kemerdekaan No. 61, Padangsidimpuan Selatan. The population of this research was grade VIII of SMP N 5 Padangsidimpuan. This research will done from November 2019 until the researcher finish the research.

B. The Research Design

This research was conducted with quantitative research with experimental method. L.R Gay Said, "Experimental research is the only type of research that can test hypothesis to establish cause and effect."⁴⁵ Then, Cresswell says, "Experimental research induced the experiment with the Random assignment of subject to treatment condition as well as, quasi experiment, that we none randomized.⁴⁶ This research used two rooms in this research. One of the room is taught with word search puzzle game and it called as experimental class or as a treatment. Meanwhile the other class is taught with conventional teaching and called as control class.

Based on using control and experimental class, the research design that is used 'true experimental design'. The design which used is Pretest-Posttest Control Group Design. The pretest-posttest control group design

⁴⁵ L.R Gay and Peter Airaisan, *Educational Research for Analysis and Application* (America: Prentice Hall, 1992), 71.

⁴⁶ John Cresswell, *Research Design Quantitative and Mixed Method Approached Second Edition*, Second Edi (USA: Prentice Hall, 2000), 14.

requires at least two groups, each of which is formed by random assignment. Both groups were administered a pretest, each group received a different treatment, and both groups were posttest at the end of the study. Posttest scores are compared to determine the effectiveness of the treatment. The research designed for pre-test and post-test control group design by using one treatment can be seen below:

Table 2

Pretest-Posttest Research Design

Е	O_1	Х	O_2
Р	O ₁	-	O ₂

Where: E = Symbol for experimental class P = Symbol for control class X = Symbol for treatment⁴⁷

C. The Population and Sample

1. Population

The population of this research was the VIII grade students of

SMP N 5 Padangsidimpuan. The population of the research consist of

9 rooms with 287 students. Can be seen in the following table:

Table 3

The Population of VIII Grade Students of SMP N 5 Padangsidimpuan

No	Class	Total
1	VIII-1	32 Students
2	VIII-2	32 Students
3	VIII-3	31 Students
4	VIII-4	32 Students
5	VIII-5	31 Students
6	VIII-6	33 Students
7	VIII-7	32 Students

⁴⁷Suharsimi Arikunto, *Manajemen Penelitian* (Jakarta: Rineka Cipta, 2003).

8	VIII-8	32 Students
9	VIII-9	32 Students
	TOTAL	287 Students
2	CI ID II	

Source: School Data Administration of SMP N 5 Padangsidimpuan

2. Sample

In this research, this research used random sampling to take the sample the research. This research used random sampling because of all the sample had the same time, age, teacher, lesson, placed, to chose and it is the best way to obtain a representative sample.

The population was all the 8th Grade. After that, 2 classes as a sample there were class VIII-1 consist of 32 students such as control class and VIII-2 consisted of 32 students such as experiment class. Therefore, total samples were 64 students.

Sample of Research		
Class	Sample	
Experimental Class VIII-1	32	
Control Class VIII-2	32	
TOTAL	64	

Table 4

Source: School Data Administration of SMP N 5 Padangsidimpuan

D. The Instrument of Collecting Data

These are the instrumentations in the research. They are test, test is the tool why is in the measurement to collect the data in the research, research used vocabulary test which is 20 items essays for filling word search puzzle game test. Brown defined test a method of measuring a persons ability knowledge or performance in a given domain.⁴⁸

In this research, the data was collected by quantitative research. The instrument of collecting data was used by this research to get the data observation by using test. Test is used for getting data of research result and students activities in teaching learning. According to Arikunto, test is series of exercises as well as other tools used to measure the skills, knowledge, inteligence, ability or talent possessed by individuals or groups⁴⁹. The test that the writer made was vocabulary test. The vocabulary test referred to Part of Body.

Ν			
0	Aspect	Indicator	Score
1	Magning	Students can interpret English vocabulary	20
1	Meaning	well.	20
		Students are not fluent in interpreting English vocabulary well	10
2	Spelling	Students can read English vocabulary well	20
		Students are not fluent in reading English vocabulary well	10
3	Pronounciation	Students can pronounce English vocabulary fluently	20
		Students are not fluent in pronouncing English vocabulary fluently	10
		Students can write English vocabulary well	
4	Word Classes	and quickly in notebooks	20
		Students are not fluent in writing English	
		vocabulary well and quickly in notebooks	10

 Table 5

 Vocabulary Assessment Rubric⁵⁰

⁴⁸H. Douglas Brown, *Language Assessment, Principle and Classroom Practice*, (New York: Pearson Education, 2004), p.3.

⁴⁹Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik* (Jakarta: Rineka Cipta, 2010), https://doi.org/Katalog Perpustakaan Badan PPSDMK Kemenkes RI [4513].

⁵⁰ Tri Lestari Nela, *Rubrik Penilaian Vocabulary*, n.d.

		Students can use English vocabulary in	
5	Word Use	classroom learning	20
		Students are not fluent in using English	
		vocabulary in learning in class	10

This research is very limited to vocabulary assessment. The

researcher only used 2 aspects for this research. That is meaning and

pronounciation.

Table.6

1			
1	Meaning	Students can interpret English vocabulary	
		well.	50
Pr	ronounciation	Students can pronounce English vocabulary	
2		well	50

Maximal score 100

In collection the data, the research conducted twice of test for these groups. They are Pre-test and Post-test.

a. Pre-test

The pre test was conducted to find out the homogeneity of the sample, the function of the pre test was to find the main scores of the interactive strategy class and conventional class before the research gave treatment.

b. Treatment

In this research, after doing the pre-test, the experimental class and the control class gave the same material. Treatment to the students in experimental class by used Word Search Puzzle Game and the students in control class by conventional teaching. $c. \ Post-Test$

After giving the treatment the researcher conducted the post test which the same test with the pre test, and had been conducted in the previous of the research, this post test was the final test in the research especially measuring the treatment, whether was significant or not, after conducting the post test the researcher analyzed the data, and the researcher found out the effect of word search puzzle game in experimental class

E. The Validity and Reliability of Instrument

1. Validity of the Test

Validity (in testing) is the degree to which a test measures what it supposed to measure or can be used successfully for the purpose for which it is intended. A number of different statistical procedures generally seek to determine what the test measure and how well it does so. Validity is supported most convincingly by subsequent personal observation by teachers and peers. By far the most complex criterion of a good test is validity.⁵¹ To make it sure that the test was valid, the test was validated by checking by the English teacher of SMP N 5 Padangsidimpuan.

⁵¹H. Douglas Brown, *Teaching by Principles An Interactive Approach to Language Pedadogy* (San Fransisco: Longman, 2007)., p. 448.

2. Reliability of the Test

An instrument of the rereach must be reliable. A reliability test isconsistent and dependable.⁵² Reliability also needed to create the good test because a test must be reliable to measuring the instrument. The instrument can be said reliable when the instrument believable to use as an instrument because the instrument is good to collecting the data.

F. Technique of Analyzing Data

In this research, the researcher used the technique of data analysis as follow:

1. Requirement test

a) Normality test

Normality test use to know whether the data of research was normal or not. To know the normality, the researcher used *Chi-Square* formula. The formula is follow:

$$x^2 = \sum \left(\frac{f_o - f_h}{f_h} \right)$$

Where:

 x^2 = Value of Chi-Square

f₀ =Observed Frequency

f_h =Expected Frequencye

To Calculate the result of Chi- Square, it used significant level

5% (0,05) and degree of freedom as big as of frequncy is lessened

3(dk=k-3). If result x^2 count< x^2 table.⁵³

⁵²H. Douglas Brown.

⁵³Ahmad Nizar Rangkuti, *Statistik Untuk Penelitian Pendidikan* (Medan: Kelompok Penerbit Perdana Mulya Sarana, 2015).

Homogeneity Test b)

Homogeneity test was used to know whether both experimental class have the same variant or not. If both classes were same, it can be called homogenous. To find the homogeneity, the researcher used Harley test.

The formula is as follow:

 $F = \frac{\textit{The biggest variant}}{\textit{The smallest variant}}$

Hypotheses is accepted if $F_{(count)} \leq F_{(table)}$

Hypotheses is rejected if $F_{(count)} \ge F_{(table)}$

2. Hypotheses Test

The technique in analyzing the data was used by t-test, because it is aimed to examine the different of two variable. Such examination performed both on pre-test and post-test score from the experimental class and control class. The hypothesis test stated as:

$$t = \frac{X_1 - X_2}{\sqrt{\left(\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where :

: the value which the statistical significant t

 X_1 : the average score of the experimental class

 X_2 : the average score of the control class

 $\frac{s_1^{\bar{2}}}{s_2^2}$: deviation standard of the experimental class

: deviation standard of the control class

: number of experimental class n_1

: number of control class⁵⁴ \mathbf{n}_2

⁵⁴Sugiyono, Metode Penelitian Kuantitatif Kualitatif Dan R&D (Bandung: Alfabeta, 2010), 197.

CHAPTER IV

THE RESULT OF THE RESEARCH

To analyze the data as mentioned is earlier chapter, in order to evaluate the effect of word search puzzle game to vocabulary mastery, the researcher has calculated the data using pre-test and post-test. Pre-test was done before conducting the treatment and post-test was done after conducting the treatment. Researcher applied quantitative analysis by using the formulation of T-test. It was done to know the effect of word search puzzle game to vocabulary mastery. Next, researcher described the data as follow:

A. Description of Data

The pre-test scores obtained before teaching in experimental class and control class.

1. Description of Data Before Using Word Search Puzzle

a. The Pre-test Score for Experimental Class

As the experimental class, the researcher took class VIII-1. In pre-test for experimental class, the researcher calculated the result that had been gotten by the students' word search puzzle (essay test). The researcher has calculated the students' score in appendix 6 and 7. The score of pre-test for experimental class can be seen in the following table:

The Score of Experimental Class in Pre-test		
Descriptive	Statistic	
Total score	1.855	
Highest score	80	
Lowest score	35	
Mean	60,12	
Median	58,09	
Modus	57,81	
Range	45	
Interval	7	
Standard deviation	11,69	
Variant	143,32	

 Table. 6

 The Score of Experimental Class in Pre-test

Based on the above table, the total score of pre-test for experimental class was 1.855, mean was 60,12, standard deviation was 11,69, variant was 143,32, median was 58,09, range was 45, modus wa 57,81, interval class was 7. The researcher got the lowest score was 35 and highest score was 80. Next, the calculation of how to get it could be seen in appendix 6. Then the calculation of the frequency distribution of the students' score as follow:

]	Frequency Distribution of the Variables			
nterval	Point	equency	centages	
35-41	38	4	2,5%	
42,48	45	3	,375%	
49-55	52	6	8,75%	
56-62	59	8	,125%	
63-69	56	4	2,5%	
70-76	73	1	,125%	
77-83	80	2	6,25	
<i>i</i> =7		32	100%	

Table. 7 Frequency Distribution of the Variables

From the table above, the students' score in class interval between 35-41 was 4 students (12,5%), class interval between 42-48

was 3 students, (9,375%), class interval between 49-55 was 6 students (18,75%), class interval between 56-62 was 8 students (28,125%), class interval between 63-69 was 4 students (12,5%), class interval between 70-76 was 1 student (3,125%) and the last class interval between 77-83 was 2 students (6,25%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:

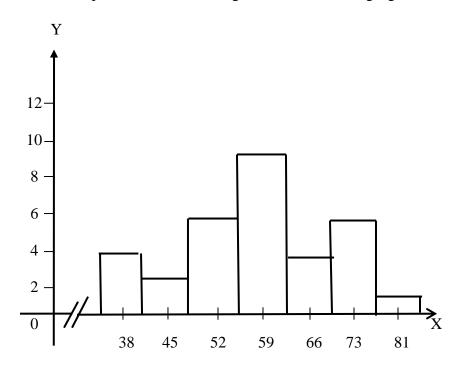


Figure 2: Description Data of Students' Word Search Puzzle in Experimental Class (Pre-test)

From the histogram above shows that, the data was normal.

b. The Pre-test Score for Control Class

In pre-test of control class, the researcher calculated the result that had been gotten from students' word search puzzle test (essay test). The score of pre-test for control class can be seen in the following table:

Table. 8The Score of Control Class in Pre-test		
Descriptive	Statistic	
Total score	1.700	
Highest score	75	
Lowest score	30	
Mean	55,12	
Median	52,81	
Modus	52,81	
Range	45	
Interval	7	
Standard deviation	11,97	
Variant	152,82	

Based on the above table, the total score of pre-test for control class was 1.700, mean was 55,12, standard deviation was 11,97, variant was 152,82, median was 52,81, range was 45, modus was 52,81, interval class was 7. The researcher got that the lowest score was 30 and highest score was 75. Next, the calculation of how to get it could be seen in appendix 7. Then the calculation of the frequency distribution of the students' score as follow:

Table.9Frequency Distribution of the Variables

nterval	l Point	requency	centages
30-36	33	4	2,5%
37-43	40	3	,375%
44-50	47	6	8,75%
51-57	54	9	,125%

58-64	61	3	,375%
65-71	68	5	,625%
72-78	75	2	5,625
i=5		32	100%

From the table above, the students' score in class interval between 30-36 was 4 students (12,5%), class interval between 37-43 was 3 students, (9,375%), class interval between 44-50 was 6 students (18,75%), class interval between 51-57 was 9 students (28,125%), class interval between 58-64 was 3 students (9,375%), class interval between 65-71 was 5 students (15,625%) and the last class interval between 772-78 was 2 students (6,25%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:

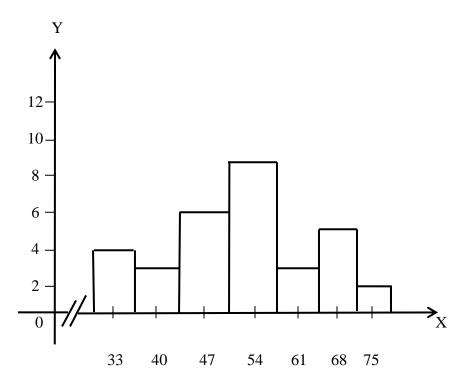


Figure 3: Description Data of Students' Word Search Puzzle in Control Class (Pre-test)

From the histogram above it was shawn that the data was normal.

2. Description of Data After Using Word Search Puzzle

a. Score of Post-test for Experimental Class

In post-test for experimental class, the researcher calculated the result that had been gotten from students' word search puzzle test (essay test). The researcher has calculated the students' score in appendix 9 and 10. The score of post-test for experimental class can be seen in the following table:

The Score of Experimental Class in Post-test			
Descriptive	Statistic		
Total score	2.140		
Highest score	85		
Lowest score	40		
Mean	74,71		
Median	75,48		
Modus	78		
Range	45		
Interval	7		
Standard deviation	11,97		
Variant	342,33		

Table. 10The Score of Experimental Class in Post-test

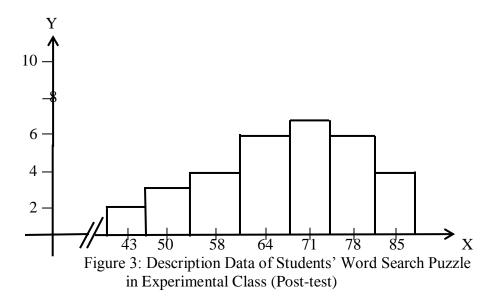
Based on the above table, the total score of post-test for experimental class was 2,140, mean was 74,71, standard deviation was 11,97, variant was 342,33, median was 75,48, range was 45, modus was 78, interval class was 7. The researcher got the lowest score was 40 and highest score was 85. Next, the calculation of how to get it could be seen in appendix 9. Then the calculation of the frequency distribution of the students' score as follow:

I requency Distribution of the variables				
nterval	1 Point	equency	centages	
40-46	43	2	5,25%	
47-53	50	3	,375%	
54-60	57	4	2,5%	
61-67	64	6	8,75%	
68-74	71	7	,875%	
75-81	78	6	8,75%	
82-88	85	4	2,5%	
i=7		32	100%	

Table.11Frequency Distribution of the Variables

From the table above, the students' score in class interval between 40-46 was 2 students (6,25%), class interval between 47-53 was 3 students, (9,375%), class interval between 54-60 was 4 students (12,5%), class interval between 61-67 was 6 students (18,75%), class interval between 68-74 was 7 students (21,875%), class interval between 75-81 was 6 students (18,75%) and the last class interval between 82-88 was 4 students (12,5%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:



From the histogram above shows that, the data was normal.

b. The Post-test Score for Control Class

In post-test for control class, the researcher calculated the result that had been gotten by students' word search puzzle (essay test). The researcher has calculated the students' score in appendix 10. The score of post-test for control class can be seen in the following table:

The Score of Control Class in Post-test			
Descriptive	Statistic		
Total score	1.870		
Highest score	80		
Lowest score	35		
Mean	58,37		
Median	59		
Modus	58,58		
Range	45		
Interval	7		
Standard deviation	12,25		
Variant	124,89		

 Table. 12

 The Score of Control Class in Post-test

Based on the above table, the total score of post-test for control class was 1.870, mean was 58,37, standard deviation was 12,25, variant was 124,89, median was 59, range was 45, modus was 58,58, interval class was 7. The researcher got the lowest score was 35 and highest score was 80. Next, the calculation of how to get it could be seen in appendix 10. Then the calculation of the frequency distribution of the students' score as follow:

 Table.13

 Frequency Distribution of the Variables

 nterval
 I Point
 equency
 centages

3

375%

38

35-41

42-48	45	3	,375%
49-55	52	6	8,75%
56-62	59	8	25%
63-69	66	3	,375%
70-76	73	6	8,75%
77-83	80	3	,375%
<i>i</i> =7		32	100%

From the table above, the students' score in class interval between 35-41 was 3 students (9,375%), class interval between 42-48 was 3 students, (9,375%), class interval between 49-55 was 6 students (18,75%), class interval between 56-62 was 8 students (25%), class interval between 63-69 was 3 student (9,375%), class interval between 70-76 was 6 students (18,75%) and the last class interval 77-83 was 3 students (9,375%).

In order to get description of the data clearly and completely, the researcher presents them in histogram on the following figure:

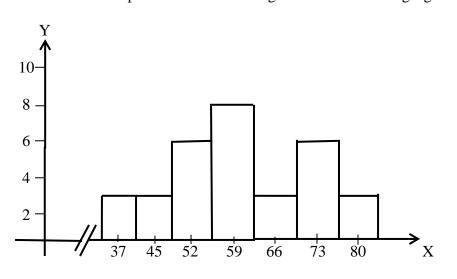


Figure 5: Description Data of Students' Word Search Puzzle in Control Class (Post-test)

From the histogram above shows that, the data was normal.

B. Hypothesis Test

After calculating the data of post-test, researcher found that the posttest result of experimental class and control class is normal and homogenous. Based on the result, researcher used parametric test by using T-test to analyze the hypothesis. Hypothesis alternative (H_a) of the research was "Word Search Puzzle has an effect on students' Vocabulary Mastery at the VIII Grade Students of SMP N 5 Padangsidimpuan." The calculation can be seen in appendix 12. The result of t-test was as follow:

 Table. 14

 Result of T-test from the Both Averages

Pre-t	est	Post-test	
ount	t _{table}	t _{count}	t _{table}
77	2,39	5,31	2,39

The test hypothesis have two criteria. First, if $t_{count} < t_{table}$, H₀ is accepted. Second, if if $t_{count} > t_{table}$, H_a is accepted. Based on researcher's calculation in pre-test, researcher found t_{count} 1,77 while t_{table} 2,39 with opportunity (1- α) = 1- 5% = 95% and dk = $_{n1} + _{n2} - 2 = 32 + 32 - 2 = 62$. Cause $t_{count} < t_{table}$ (1,77<1,88), it means that hypothesis H_a was rejected and H₀ was accepted. So, in pre-test, two classes were same. There is no difference in the both classes. But, in post-test, researcher found that t_{count} 2,80 while t_{table} 1,88 with opportunity (1- α) = 1- 5% = 95% and dk = $_{n1} + _{n2} - 2 = 32 + 32 - 2 = 62$. Because, $t_{count} > t_{table}$ (5,31>2,39), it means that hypothesis H_a was accepted and H₀ was rejected. The calculation can be seen on the appendix 12. Based on the result of the data analysis, the researcher got the mean score of experimental class in pre-test was 60,12 and in post-test was 75,48. Then the mean score of control class in pre-test was 52,12 and in post-test was 58,37. The gain score was 12,11. The calculation can be seen on appendix 12.

C. Discussion

The researcher discussed the result of this research. Based on the result of the data analysis, the researcher got the mean score of experimental class in pre-test was 60,12 and in post-test was 74,71. Then the mean score of control class in pre-test was 55,12 and in post-test was 58,37. So, based on its comparing can be concluded that the improvement of experimental class was higher than control class. Automatically, word search puzzle game had the effect on Vocabulary Mastery.

It also discussed with the theory and compared with the related finding that has been stated by researcher. Related to the theory from Khoirul Bahri Lubis in his script: the effect of using crossword puzzle in reinforcing activity toward students' vocabulary mastery.⁵⁵ He found that using crossword puzzle in reinforcing activity is very useful toward the improvement of students. Vocabulary at elementary school with score vocabulary just 48.58.

The researcher Munika Duri with entitled "The use of bilingual crossword puzzle toward students' vocabulary mastery of fifth grade in MI Salafiyah-Selopuro academic year 2012/2013. Here she used bilingual

⁵⁵Khoirul Bahri Lubis, "The Effect of Using Crossword Puzzle in Reinforcing Activity Toward Students Vocabulary Mastery at Fifth Grade of Islamic Elementary School."

crossword puzzle as teaching media. The result of the study showed that the students get better achievement in vocabulary score after taught by using the treatment. It found that the use of vocabulary by bilingual crossword puzzle can improve students' vocabulary. The writer used pre experimental research with the quantitative approach.⁵⁶ So, there are three steps like pretest, treatment, and posttest with the design in the form of one group.

Other research entitled "The effectiveness of using word square game towards the students' mastery of vocabulary the second grade at SMP Negeri 2 Pakel year 2012/2013". The writer is Pujiastuti.⁵⁷ She research used pre experimental with one group pretest-posttest design. She is using word square game in the teaching vocabulary. Her research was succeeded and shows a better result.

Tri Riski Hasibuan in her script is improving students vocabulary mastery through crossword puzzle at SD Muhammadiyah 1 Padangsidimpuan has a significant, based on the result of the classroom action research, it was concluded that crossword puzzle technique improved students' vocabulary mastery at grade VI SD Muhammadiyah 1 Padangsidimpuan.⁵⁸ It based on the students' vocabulary mastery mean

⁵⁶Munika Duri, "The Use of Bilingual Crossword Puzzle Toward Students' Vocabulary Mastery of Fifth Grade in MI Salafiyah."

⁵⁷Puji Astuti, "The Effectiveness of Using Word Square Game Towards the Students Mastery of Vocabulary the Second Grade at SMP 2 Pakel."

⁵⁸Seri Mawar, Eka Sustri Harida, "Improving Students' Vocabulary Mastery Through Word Square Modeling at Grade VII SMP Negeri 5 Padangsidimpuan," 67.

score which was in cycle 1 were 61.42 and 62.14 became 84.28 and 91.78 in cycle 2.

D. The Limitation of the Research

There were some aspect that could threat for this research as follow:

- 1. This research is very limited to vocabulary assessment. The researcher only used 2 aspect for vocabulary assessment rubric.
- 2. The researcher did not know how serious the students were in answering the test. The researcher did not know the students' knowledge whether the students answer the question by their real answer, or they guest the answer, or they cheat their friends' answer.
- 3. The students need more time in answering the test.
- There were some of students were noisy while answering the test.
 So, it can disturb the concentration of the others.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the result of the research, the conclusions of this research are:

- The students vocabulary mastery at grade VIII of SMP N 5 Padangsidimpuan before using word search puzzle game, the mean score of pre-test for experimental class was 60,12 and the mean score of pre-test for control class was 55,12.
- 2. The students vocabuary mastery at grade VIII of SMP N 5 Padangsidimpuan after using word search puzzle game, the mean score of experimental class was higher than before using word search puzzle game. The mean score of post-test for the experimental class was 74,71 and the mean score of post-test for control class taught by conventional strategy was 58,37.
- 3. There was a significant effect of word search puzzle game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan. The researcher found the research result of t-test where t_0 was higher than t_t was 5,31 and t_t was 2,39 (5,31>2,39). It means that H_a was accepted, so there was a significant effect of word search puzzle game to vocabulary mastery at the VIII grade students of SMP N 5 Padangsidimpuan.

B. Suggestion

After finishing the research, the researcher got many information in English teaching learning. Therefore, from that experience, the researcher show some things need to be proven. It makes the researcher give some suggestion, as follow:

- From the researcher result it is as the information for the headmaster to motivate the English teacher to teach as well as possible by maximizing the using word search puzzle game in teaching, because this strategy can achieve the students ability especially in vocabulary mastery.
- 2. From the research result it is also as the information to the English teacher to use Word Search Puzzle Game as a reference in teaching vocabulary to make learning process more active.
- 3. The researcher suggests to another researchers to use this strategy in solving another problems and find another factors that face by students in learning English process.

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CURRICULUM VITAE



A. Identity

Description	
Address	: Jl. Imam Bonjol Gg. Durian, Padangsidimpuan.
Religion	: Islam
Gender	: Female
Place and Birthday	: Padangsidimpuan, 14 November 1998
Nim	: 16 203 00013
Name	: Linda Sari Lubis

B. Parents

2. Mother

- 1. Father : Samsul Lubis
 - : Masdelina Nasution

C. Educational Background

1. Elementary School	: SD N 200211/1 Padangsidimpuan	2004-2010
2. Junior High School	: SMP N 5 Padangsidimpuan	2010-2013
3. Senior High School	: SMA N 3 Padangsidimpuan	2013-2016
4. Collage	: IAIN Padangsidimpuan	2016-2021

APPENDIX 1 EXSPERIMENTAL CLASS

RENCANA PELAKSANAAN PEMBELAJARAN (R P P)

Sekolah	: SMP N 5 Padangsidimpuan
Mata Pelajaran	: Bahasa Inggris
Kelas / Semester	: VIII/ 1
Aspek/sub skil	: Vocabulary (Part of Body)
Alokasi Waktu	: 2 X 40 Minutes
Peneliti	: LINDA SARI LUBIS

A. KOMPETENSI INTI

- 1. : Menghargai dan menghayati ajaran agama yang dianutnya.
- 2. : Menghargai dan menghayati perilaku jujur, disiplin, tanggungjawab, peduli (toleransi, gotong royong), santun, percaya diri, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya
- 3. : Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.
- 4. : Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori

B. KOMPETENSI DASAR

3.7 Menerapkan fungsi sosial, struktur teks, dan unsur kebahasaan teks interaksi transaksional lisan dan tulis yang melibatkan tindakan memberi dan meminta informasi terkait noun, dan mampu menebak kosa kata noun sesuai dengan konteks penggunaanya.

4.8 Menyusun teks interaksi transaksional, yang melibatkan tindakan memberi dan meminta informasi terkait noun, fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai kontek.

C. INDIKATOR

- 1. Memahami maksud dan penggunaan word search puzzle dan part of body
- 2. Memahami dan menguasai penggunaan vocabulary di dalam metode word search puzzle

D. TUJUAN PEMBELAJARAN

Pada akhir pembelajaran, siswa dapat :

- Melalui bimbingan dari guru dan penjelasan dari gambar, siswa dapat menggunakan word search puzzle dan vocabulary secara tepat.
- E. MATERIAL : Vocabulary (Part of Body)

F. METODE PEMBELAJARAN : Word Search Puzzle dan Presentasi

G. MEDIA ALAT DAN SUMBER BELAJAR

- 1) Media / Alat
 - a. Papan tulis, dan spidol.
- 2) Sumber Belajar
 - a. Buku teks yang relevan
 - b. Kamus Bahasa Inggris
 - c. Internet

H. LANGKAH – LANGKAH PEMBELAJARAN

PERTEMUAN KE-1

Pembelajaran		Waktu
Pendahuluan	a. Greeting	
	b. Mengabsen siswa	
	a. Guru menghubungkan pelajaran yang lalu ke pelajaran selanjutnya	
	c. Guru mengatakan tentang materi baru	
	d. Guru memberikan fotocopi word search puzzle game ke siswa	
Inti	b. Guru menjelaskan peraturan permainan dan siswa harus menemukan semua kata yang	

	tersembunyi di dalam kotak	
	c. Guru mengarahkan siswa untuk melingkari setiap kara yang mereka temukan	
	d. Guru memberikan waktu 30 menit	
Penutup	a. Guru menanyakan siswa tentang pemahaman mereka tentang materi baru	
	b. Guru menyimpulkan dan menyuruh siswa membuat catatan bersama.	
	c. Guru menutup kelas dan berdoa diakhir pembelajaran	

I. PENILAIAN :

A. Tekhnik	: Merespon Pertanyaan Tertulis
B. Bentuk	: Pertanyaan Tertulis
C. Instrument	: Terlampir

J. PEDOMAN PENILAIAN

Nilaiakhir = $\frac{skor \ maksimal}{skor \ minimum} X \ 100$

Keterangan: Jumlah Skor Maksimal X 10: 10 Nilai Maksimal :100 Nilai Siswa := $\frac{skor \ yang \ di \ peroleh}{skor \ maksimum}$ X 100

ENGLISH TEACHER

RESEARCHER

ROS MAWAR S.PD

LINDA SARI LUBIS

NIP. 19730202 200502 2 001

NIM. 16 203 00013

APPENDIX 2 CONTROL CLASS

RENCANA PELAKSANAAN PEMBELAJARAN (RPP)

Sekolah	: SMP N 5 Padangsidimpuan
Mata Pelajaran	: Bahasa Inggris
Kelas / Semester	: VIII/ 1
Aspek/sub skil	: Vocabulary (Part of Body)
Alokasi Waktu	: 2 X 40 Minutes
Peneliti	: LINDA SARI LUBIS

A. KOMPETENSI INTI

- 1. : Menghargai dan menghayati ajaran agama yang dianutnya.
- 2. : Menghargai dan menghayati perilaku jujur, disiplin, tanggungjawab, peduli (toleransi, gotong royong), santun, percaya diri, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya
- 3. : Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.
- 4. : Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori

B. KOMPETENSI DASAR

3.7 Menerapkan fungsi sosial, struktur teks, dan unsur kebahasaan teks interaksi transaksional lisan dan tulis yang melibatkan tindakan memberi dan meminta informasi terkait noun, dan mampu menebak kosa kata noun sesuai dengan konteks penggunaanya.

4.8 Menyusun teks interaksi transaksional, yang melibatkan tindakan memberi dan meminta informasi terkait noun, fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks

C. INDIKATOR

- 1. Memahami maksud dan penggunaan word search puzzle dan part of body
- 3. Memahami dan menguasai penggunaan vocabulary di dalam metode word search puzzle

D. TUJUAN PEMBELAJARAN

Pada Akhir Pembelajaran, Siswa Dapat :

- Melalui bimbingan dari guru dan penjelasan dari gambar, siswa dapat menggunakan word search puzzle dan vocabulary secara tepat.
- E. MATERIAL : Vocabulary (Part of Body)

F. METODE PEMBELAJARAN : Convetional Strategy

G. MEDIA ALAT DAN SUMBER BELAJAR

- 1) Media / Alat
 - d. Papan tulis, dan spidol.
- 2) Sumber Belajar
 - e. Buku teks yang relevan
 - f. Kamus Bahasa Inggris
 - g. Internet

H. LANGKAH – LANGKAH PEMBELAJARAN

PERTEMUAN KE-1

Pembelajaran		Waktu
Pendahuluan	 e. Greeting f. Mengabsen siswa g. Memberi motivasi pada siswa h. Memberi gambaran mengenai materi yang akan dipelajari dan teknik yang akan digunakan. 	
Inti	 e. Guru mengucapkan salam dan membuka kelas f. Berdoa bersama sebelum memulai pelajaran g. Guru menghubungkan pelajaran yang lalu 	

	kepelajaran selanjutnya	
	h. Guru memberi materi	
	i. Guru menjelaskan tentang materi yang akan di pelajari	
	j. Guru memberi catatan	
Penutup	d. Guru dan siswa secara bersama-sama membuat ringkasan bahan yang sudah dipelajari pada pertemuan ini.	
	e. Guru menjelaskan rencana kegiatan pembelajaran yang akan datang.	
	f. Guru mengumpulkan soal yang dikerjakan siswa	
	g. Berdo'a di akhir pembelajaran.	

I. PENILAIAN :

- D. Tekhnik : Merespon Pertanyaan Tertulis
- E. Bentuk : Pertanyaan Tertulis
- F. Instrument : Terlampir

J. PEDOMAN PENILAIAN

Nilaiakhir =
$$\frac{skor \ maksimal}{skor \ minimum} X \ 100$$

Keterangan:

Jumlah skor maksimal x 10: 10

Nilai maksimal :100

Nilai siswa := $\frac{skor yang di peroleh}{skor maksimum} X 100$

ENGLISH TEACHER

ROS MAWAR, SPD

NIP.19730202 200502 2 001

RESEARCHER

LINDA SARI LUBIS

NIM. 16 203 00013

INSTRUMENT PRE-TEST

Nama

Kelas

A. Pengantar :

:

:

:

- 1. Tes ini hanya bertujuan untuk menyaring data dari siswa
- 2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah
- 3. Terimakasih atas kejujuran dan partisipasi anda

B. Petunjuk

- 1. Isilah terlebih dahulu identitas anda (nama dan kelas)
- 2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah
- 3. Carilah kata-kata dibawah ini yang berada didalam kotak baik secara **mendatar**, **menurun**, **kesamping kanan** dan **kesamping kiri**.
- 4. Jawablah dengan bahasa inggris.
- C. Pertanyaan :
 - Please find the words are hidden in this grid by looking the clues below and then please translate them first!

Wajah	Bibir	Lidah	Pergelangan tangan
Kuku	Dada	Jari	Paha
Tangan	Betis	Lutut	Pipi
Kepala	Lengan	Mata	Tumit
Rambut	Siku	Pinggang	Telinga

Η	Μ	0	Ν	E	Y	Η	В	Т	Ζ	L	L	Р	R	F	Q
А	S	V	D	R	R	Е	L	Р	Η	Ι	G	Е	Т	U	Μ
Ζ	V	Т	E	Α	В	Α	Μ	Η	0	Ι	S	E	0	U	F
С	Y	Μ	E	Μ	Κ	D	C	V	R	А	G	G	Ν	Κ	Ι
Η	А	Ν	D	В	0	0	W	С	V	E	G	Η	G	Y	Ν
А	L	В	G	А	V	0	А	V	0	А	Т	А	U	R	G
Ι	Х	С	D	L	В	D	Ν	Т	В	R	U	Α	E	E	E
R	S	Н	R	L	Т	F	L	Κ	Т	S	Ι	R	W	Х	R
L	Ι	Е	E	S	Н	Α	Ν	Ι	L	Р	Μ	0	Η	Ι	Р
Х	C	S	Ι	Ζ	Ι	E	F	G	Η	E	Е	L	J	Κ	Ι
S	М	Α	Т	Е	Е	Т	R	Ι	Μ	L	Ν	F	L	Α	С
Q	W	С	D	0	Н	Т	Ι	Μ	Ι	А	Κ	U	Ν	Y	E
0	R	0	Α	R	Μ	Y	E	Α	Т	S	Р	Ι	L	Т	Μ
Р	0	S	S	D	D	D	Ν	Ι	Ν	D	0	Μ	Ι	E	Α
W	Ν	E	Y	E	W	А	С	Н	E	E	Κ	Ι	Ν	E	Р

Validator

Ros Mawar, S.Pd NIP. 19730202 200502 2 001

:

:

:

:

INSTRUMENT POST-TEST

Nama

Kelas

A. Pengantar

- 1. Tes ini hanya bertujuan untuk menyaring data dari siswa
- 2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah
- 3. Terimakasih atas kejujuran dan partisipasi anda
- B. Petunjuk
 - 1. Isilah terlebih dahulu identitas anda (nama dan kelas)
 - 2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah
 - 3. Carilah kata-kata dibawah ini yang berada didalam kotak baik secara **mendatar**, **menurun**, **kesamping kanan** dan **kesamping kiri**.
 - 4. Jawablah dengan bahasa inggris.
- C. Pertanyaan :
 - Please find the words are hidden in this grid by looking the clues below and then please translate them first!

Mulut	Pergelangan kaki	Bahu	Kepala
Gigi	Ketiak	Dagu	Ibu jari
Leher	Kuku	Kaki	Tangan
Hidung	Wajah	Jari kaki	Tahi lalat
Punggung	Dahi	Otot	Siku

	1	1	1	r	r	r	r	1	r	1	1	r	r	1	
Р	L	Κ	С	A	В	S	C	Т	0	0	Т	Η	L	Κ	0
Η	А	Ν	D	0	Р	Р	Ι	С	L	0	С	Н	Ι	Ν	G
В	U	Ζ	W	Η	Ι	E	В	Μ	0	Ν	А	Μ	E	А	S
Μ	М	Κ	S	Ν	S	Ι	А	Κ	L	F	А	G	L	Ι	F
Р	0	S	D	0	G	Ζ	М	U	S	C	L	E	U	L	0
Η	L	Ν	Ν	U	L	K	G	Κ	G	Η	J	E	C	В	R
А	E	F	E	Х	Р	F	0	0	Т	В	S	Н	E	0	E
Т	R	Т	С	V	В	Ν	G	D	S	Μ	0	U	Т	Η	Н
В	А	С	Κ	Т	E	L	В	0	W	Η	J	K	L	U	E
Μ	D	R	G	Η	Ι	U	Μ	В	R	E	L	L	А	А	А
U	D	R	Μ	S	0	U	L	D	E	R	0	N	Е	S	D
Η	А	Ν	S	Р	E	R	R	D	R	Т	Y	E	Ι	D	L
Т	Q	А	D	G	Ι	J	Κ	F	0	0	С	D	G	F	Е
Y	L	D	F	Η	0	Т	Р	Ι	Т	Α	L	S	А	G	С
G	А	Ν	Κ	L	E	E	V	В	F	Ι	Ν	Т	0	E	S

Validator

Ros Mawar, S.Pd NIP. 19730202 200502 2 001

Score of Experimental Class and Control Class in Pre-Test

a. Score of Experimental Class Pre-Test

NO	Students Initial Name	Pre-Test	\mathbf{X}^2
1	AAH	40	1600
2	AAHP	65	4225
3	AEDS	60	3600
4	АНН	60	3600
5	BSH	40	1600
6	DS	65	4225
7	DPA	45	2025
8	DA	70	4900
9	EA	65	4225
10	ENS	60	3600
11	GSH	60	3600
12	HP	70	4900
13	HM	80	6400
14	IS	45	2025
15	KDR	75	5625
16	LA	55	3025
17	MTPS	70	4900
18	MR	55	3025

19	MAL	60	3600
20	NPMN	50	2500
21	NL	60	3600
22	NM	65	4225
23	PAL	35	1225
24	RAY	75	5625
25	RAF	55	3025
26	RSE	45	2025
27	RHA	35	1225
28	RAS	75	5625
29	SH	60	3600
30	SRH	60	3600
31	SAL	50	2500
32	THS	50	2500
	TOTAL	1885	111975

RESULT OF NORMALITY TEST IN PRE TEST

RESULT OF THE NORMALITY TEST OF VIII-1 IN PRE-TEST

35	45	50	55	60	60	65	75
35	45	50	60	60	65	70	75
40	45	55	60	60	65	70	75
40	50	55	60	60	65	70	80

1. The score of VIII-1 in pre test from low score to high score:

2. High = 80 Low = 35 Range = High - Low = 80 - 35 = 45 3. Total Classes = 1 + 3,3 log (n) = 1 + 3,3 log (32) = 1 + 3,3 (1,50) = 1 + 4,95 = 5,95 = 6

4. Length of Classes = $\frac{range}{total of class} = \frac{45}{6} = 7.5 = 7$

5. Mean

Interval class	F	Mid Point	Х	fx	x^2	fx ²
35-41	4	38	+3	12	9	36
42-48	3	45	+2	6	4	12
49-55	6	52	+1	6	1	6
56-62	8	59	0	0	0	0
63-69	4	66	-1	-4	1	4
70-76	6	73	-2	-12	4	24
77-83	1	81	-3	-3	9	9
i=7	32			5		91

$$M_{x} = M^{1} + i \frac{\sum fx^{1}}{N}$$

$$= 59 + 7 \left(\frac{5}{32}\right)$$

$$= 59 + 7 \left(0,16\right)$$

$$= 59 + 1,12$$

$$= 60,12$$

$$SD_{t} = i \sqrt{\frac{\sum fx^{2}}{n}} \left(\frac{\sum fx^{1}}{n}\right)^{2}$$

$$= 7 \sqrt{\frac{91}{32}} - \left(\frac{5}{32}\right)^{2}$$

$$= 7 \sqrt{2,84} - (0,16)^{2}$$

$$= 7 \sqrt{2,84} - 0,02$$

$$= 7 \sqrt{2,82}$$

$$= 7 x 1, 67$$

$$= 11,69$$

Table of Normality Data Test with Chi kuadrad Formula

Interval of score	Real upper limit	Z-score	Limit of large of area	Large of area	Fe	Fo		
35-41	41,5	-1,59	0,4441	0,1	3,2	4	0,8	0,25
42-48	48,5	-0,99	0,3389	0,18	5,76	3	-2,76	-0,47
49-55	55,5	-0,39	0,1517	0,26	8,32	6	-2,32	-0,27
56-62	62,2	1,4	0,4192	0,13	4,16	8	3,84	0,92
63-69	69,5	0,8	0,2881	0,13	4,16	4	-0,16	-0,03
70-76	76,5	1,4	0,4192	0,05	1,6	6	4,4	2,75
77-83	83,5	2	0,4772	0,03	0,96	1	0,04	0,04

				3,19

Based on the table above, the researcher found that $x^2_{count} = 3,19$ while $x^2_{table} = 7.815$ cause $x^2_{count} < x^2_{table}$ (3.19 <7.815) with degree of freedoom (dk) = 6-3 = 3 and significant level $\alpha = 5\%$. So, distribution of VIII-1 classroom (pre-test) is normal.

6. Median

Interval class	Fm	Fk
35-41	4	4
42-48	3	7
49-55	6	13
56-62	8	21
63-69	4	25
70-76	6	31
77-83	1	32

Position of Me in the interval of classes is number 4, that:

: 55,5
: 13
: 8
: 7
: 32
: 16
$= Bb + i[\frac{n_{/2} - Fk}{fm}]$
$= 55,5 + 7[\frac{\frac{32}{2}-13}{8}]$
$= 55,5 + 7[\frac{16-13}{8}]$

Me =
$$55,5 + 7[\frac{3}{8}]$$

Me =
$$55,5 + 7(0.37)$$

Me =
$$55,5+2,59$$

- Me = 58,09
- 7. Modus

Interval class	Fm	Fk
35-41	4	4
42-48	3	7
49-55	6	13
56-62	8	21
63-69	4	25
70-76	6	31
77-83	1	32

Mo
$$= L + \frac{d_1}{d_1 + d_2} i$$

L $= 55,5$
 $d_1 = 2$
 $d_2 = 4$
 $i = 7$
Mo $= L + \frac{d_1}{d_1 + d_2} i$
Mo $= 55,5 + \frac{2}{2 + 4} 7$
Mo $= 55,5 + \frac{2}{6} 7$
Mo $= 55,5 + (0.33)7$
Mo $= 55,5 + 2,31$
Mo $= 57,81$

RESULT OF NORMALITY TEST IN PRE TEST

RESULT OF THE NORMALITY TEST OF VIII-2 IN PRE-TEST

30	40	45	50	55	55	60	70
30	40	45	55	55	55	65	70
35	40	50	55	55	60	65	75
35	45	50	55	55	60	70	75

1. The score of VIII-2 in pre test from low score to high score:

4. Length of Classes = $\frac{range}{total of class} = \frac{45}{6} = 7.5 = 7$

5. Mean

. Wicall						
Interval class	F	Mid Point	Х	Fx	x^2	fx ²
30-36	4	33	+3	12	9	36
37-43	3	40	+2	6	4	12
44-50	6	47	+1	6	1	6
51-57	9	54	0	0	0	0
58-64	3	61	-1	-3	1	3
65-71	5	78	-2	-10	4	20
72-78	2	75	-3	-6	9	18
i=7	32			5		95

$$M_{x} = M^{1} + i \frac{\sum fx^{1}}{N}$$

$$= 54 + 7 \left(\frac{5}{32}\right)$$

$$= 54 + 7 \left(0,16\right)$$

$$= 54 + 1,12$$

$$= 55,12$$

$$SD_{t} = i \sqrt{\frac{\sum fx^{,2}}{n}} \left(\frac{\sum fx^{,1}}{n}\right)^{2}$$

$$= 7 \sqrt{\frac{95}{32}} - \left(\frac{5}{32}\right)^{2}$$

$$= 7 \sqrt{2,96} - (0,16)^{2}$$

$$= 7 \sqrt{2,96} - 0,02$$

$$= 7 \sqrt{2,94}$$

$$= 7 \times 1,71$$

$$= 11,97$$

Table of Normality Data Test with Chi kuadrad Formula

Interval of score	Real upper limit	Z-score	Limit of large of area	Large of area	Fe	Fo		
30-36	36,5	-1,55	0,4394	0,10	3,2	4	0,8	0,25
37-43	43,5	-0,97	0,3340	0,18	5,76	3	-2,76	-0,47
44-50	50,5	-0,38	0,1480	0,07	2,24	6	3,76	1,67
51-57	57,5	0,19	0,0753	0,20	6,40	9	2,6	0,40
58-64	64,5	0,78	0,2823	0,13	4,16	3	-1,16	-0,27
65-71	71,5	1,36	0,4131	0,06	1,92	5	3,08	1,60
72-78	78,5	1,95	0,4744	0,03	0,96	2	1,04	1,08

Based on the table above, the researcher found that $x_{count}^2 = 4.26$ while $x_{table}^2 = 7.815$ cause $x_{count}^2 < x_{table}^2$ (4.37 <7.815) with degree of freedoom (dk) = 6-3 = 3 and significant level $\alpha = 5\%$. So, distribution of VIII-2 classroom (pre-test) is normal.

6. Media	an
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Interval class	Fm	Fk
30-36	4	4
37-43	3	7
44-50	6	13
51-57	9	22
58-64	3	25
65-71	5	30
72-78	2	32

Position of Me in the interval of classes is number 4, that:

Bb	: 50,5
Fk	: 13
fm	: 9
i	: 7
n	: 32
1/2n	: 16
So,	
Me	$= Bb + i[\frac{n_{/2} - Fk}{fm}]$
	32/

Me =
$$50,5 + 7[\frac{32/2 - 13}{9}]$$

Me =
$$50,5 + 7[\frac{16-13}{9}]$$

Me = $50,5 + 7[\frac{3}{9}]$
Me = $50,5 + 7(0.33)$
Me = $50,5 + 2,31$
Me = $52,81$

7. Modus

1110445		
Interval class	Fm	Fk
30-36	4	4
37-43	3	7
44-50	6	13
51-57	9	22
58-64	3	25
65-71	5	30
72-78	2	32
	Interval class 30-36 37-43 44-50 51-57 58-64 65-71	Interval class Fm 30-36 4 37-43 3 44-50 6 51-57 9 58-64 3 65-71 5

Mo =
$$L + \frac{d_1}{d_1 + d_2}i$$

L = 50,5
 d_1 = 3
 d_2 = 6
 i = 7
Mo = $L + \frac{d_1}{d_1 + d_2}i$
Mo = 50,5 + $\frac{3}{3+6}$ 7
Mo = 50,5 + (0.33)7
Mo = 50,5 + 2,31
Mo = 52,81

HOMOGENEITY TEST (PRE-TEST)

Calculation of parameter to get variant of the first class as experimental class sample and variant of the second class as control class sample are use homogeneity test by using formula:

$$S^{2} = \frac{n \sum x_{1}^{2} - (\sum x_{i})^{2}}{n (n-1)}$$

Hypotheses:

$$H_{o} \qquad : \delta_{1}^{2} = \delta_{2}^{2}$$
$$H_{1} \qquad : \delta_{1}^{2} \neq \delta_{2}^{2}$$

A. Variant of the VIII-1 classroom is:

NO	Students Initial Name	Pre-Test	\mathbf{X}^2
1	ААН	40	1600
2	AAHP	65	4225
3	AEDS	60	3600
4	АНН	60	3600
5	BSH	40	1600
6	DS	65	4225
7	DPA	45	2025
8	DA	70	4900
9	EA	65	4225
10	ENS	60	3600

11	GSH	60	3600
12	HP	70	4900
13	НМ	80	6400
14	IS	45	2025
15	KDR	75	5625
16	LA	55	3025
17	MTPS	70	4900
18	MR	55	3025
19	MAL	60	3600
20	NPMN	50	2500
21	NL	60	3600
22	NM	65	4225
23	PAL	35	1225
24	RAY	75	5625
25	RAF	55	3025
26	RSE	45	2025
27	RHA	35	1225
28	RAS	75	5625
29	SH	60	3600
30	SRH	60	3600
31	SAL	50	2500

32	THS	50	2500
	TOTAL	1885	111975

n = 32

$$\sum x_i = 1.885$$

$$\sum x_i^2 = 111.975$$

So,

$$S^2 = \frac{n \sum x_1^2 - (\sum x_i)^2}{n (n-1)}$$

$$= \frac{32 (111975) - (1885)^2}{32 (32-1)}$$

$$= \frac{3583200 - 3441025}{992}$$

$$=\frac{142175}{992}$$
$$S^{2} = 143,32$$

B. Variant of VIII-2 classroom is:

NO	Students Initial Name	Pre-Test	\mathbf{X}^2
1	ALS	45	2025
2	ASH	30	900
3	FAS	60	3600
4	FES	45	2025
5	GHJ	60	3600
6	JSM	40	1600
7	JHG	55	3025
8	LWH	55	3025

9	LPS	30	900
10	MSL	55	3025
11	MNCS	40	1600
12	OKS	55	3025
13	OSS	70	4900
14	PJN	55	3025
15	PHW	35	1225
16	RS	60	3600
17	REP	75	5625
18	RWS	55	3025
19	RVS	70	4900
20	RA	45	2025
21	RMVA	70	4900
22	RLE	75	5625
23	RAZ	65	4225
24	SGA	40	1600
25	SLH	55	3025
26	SGA	35	1225
27	WP	65	4225
28	YSM	50	2500
29	YGSPB	55	3025

30	AMS	50	2500
31	HS	50	2500
32	SS	55	3025
	TOTAL	1700	95050

n = 32

 $\sum x_i = 1.700$

 $\sum x_i^2 = 95050$

So,

$$S^{2} = \frac{n \sum x_{1}^{2} - (\sum x_{i})^{2}}{n (n-1)}$$
$$= \frac{32 (95050) - (1700)}{32 (32-1)}$$
$$= \frac{3041600 - 2890000}{992}$$
$$= \frac{151600}{992}$$
$$S^{2} = 152,82$$

The formula was used to test hypothesis was:

1. VIII-1 and VIII-2:

$$F = \frac{The Biggest Variant}{The Smallest Variant}$$
$$F = \frac{293.70}{168.27}$$

= 1.74

Score of Experimental Class and Control Class on Post-Test

a. Score of Experimental Class Post-Test

No	Students Initial Name	Post Test	\mathbf{X}^2
1	AAH	50	2500
2	AAH	65	4225
3	AEDS	65	4225
4	АНН	75	5625
5	BSH	70	4900
6	DS	70	4225
7	DPA	50	2500
8	DA	80	6400
9	EA	75	5625
10	ENS	70	4900
11	GSH	70	4900
12	HP	75	5625
13	HM	85	7225
14	IS	70	4900
15	KDR	85	7225
16	LA	60	3600
17	MTPS	80	6400
18	MR	65	4225
19	MAL	70	4900
20	NPMN	55	3025
21	NL	70	4900
22	NM	75	5625
23	PAL	40	4900

24	RAY	85	7225
25	RAF	65	4225
26	RSE	50	2500
27	RHA	40	4900
28	RAS	85	7225
29	SH	65	4225
30	SRH	65	4225
31	SAL	60	3600
32	THS	55	3025
		2140	153725

NO	Students Initial Name	Post-Test	X^2
1	ALS	50	2500
2	ASH	40	1600
3	FAS	65	4225
4	FES	55	3025
5	GHJ	65	4225
6	JSM	45	2025
7	JHG	60	3600
8	LWH	75	5625
9	LPS	35	1225
10	MSL	65	4225
11	MNCS	45	2025
12	OKS	60	3600
13	OSS	80	6400
14	PJN	60	3600
15	PHW	40	1600

16	RS	70	4900
17	REP	80	6400
18	RWS	70	4900
19	RVS	75	5625
20	RA	50	2500
21	RMVA	60	3600
22	RLE	45	2025
23	RAZ	60	3600
24	SGA	55	3025
25	SLH	60	3600
26	SGA	55	3025
27	WP	60	3600
28	YSM	55	3025
29	YGSPB	60	3600
30	AMS	55	3025
31	HS	60	3600
32	SS	60	3600
		1870	113150

RESULT OF NORMALITY TEST IN POST TEST RESULT OF THE NORMALITY TEST OF VIII-1 IN POST-TEST

1. The score of VIII-1 in post-test from low score to high score:

40	50	60	65	70	70	75	85
40	55	65	65	70	70	75	85
50	55	65	65	70	75	80	85
50	60	65	70	70	75	80	85

- 2. High = 85 Low = 40 Range = High - Low = 85 - 40 = 45 3. Total Classes = 1 + 3,3 log (n) = 1 + 3,3 log (32) = 1 + 3,3 (1,50) = 1 + 4,95 = 5,95 = 6
- 4. Length of Classes = $\frac{range}{total of class} = \frac{45}{6} = 7.5 = 7$
- 5. Mean

· ·	Ivicali						
	Interval class	F	Mid Point	Х	Fx	x^2	fx^2
	40-46	2	43	+4	8	16	32
	47-53	3	50	+3	9	9	27
	54-60	4	57	+2	8	4	16
	61-67	6	64	+1	6	1	6
	68-74	7	71	0	0	0	0
	75-81	6	78	-1	-6	1	6

82-88	4	85	-2	-8	4	16
i=7	32			17		103

$$M_{x} = M^{1} + i \frac{\sum fx^{1}}{N}$$

$$= 71 + 7 \left(\frac{17}{32}\right)$$

$$= 71 + 7 (0,53)$$

$$= 71 + 3,71$$

$$= 74,71$$

$$SD_{t} = i \sqrt{\frac{\sum fx^{2}}{n}} \left(\frac{\sum fx^{1}}{n}\right)^{2}$$

$$= 7 \sqrt{\frac{103}{32}} - \left(\frac{17}{32}\right)^{2}$$

$$= 7 \sqrt{3,21 - (0,53)^{2}}$$

$$= 7 \sqrt{2,93}$$

$$= 7 \sqrt{2,93}$$

$$= 7 x 1,71$$

$$= 11,97$$

Table of Normality Data Test with Chi kuadrad Formula

Interval of score	Real upper limit	Z-score	Limit of large of area	Large of area	Fe	Fo		
40-46	46,5	-1,96	0,4750	0,01	0,32	2	1,68	5,25
47-53	53,5	-1,77	0,4616	0,08	0,08	3	0,44	0,17
54-60	60,5	-1,18	0,3810	0,15	0,15	4	-0,8	0,16
61-67	67,5	-0,60	0,2258	0,22	0,22	6	-1,04	-0,14

68-74	74,5	-0,01	0,0040	0,20	0,20	7	0,6	0,09
75-81	81,5	0,56	0,2123	-0,16	-0,16	6	0,88	-0,17
82-88	88,5	1,15	0,3749	-0,10	-0,10	4	7,2	-0,25
								5,11

Based on the table above, the researcher found that $x_{count}^2 = 5,11$ while $x_{table}^2 = 7.815$ cause $x_{count}^2 < x_{table}^2 (5.11 < 7.815)$ with degree of freedoom (dk) = 6-3 = 3 and significant level $\alpha = 5\%$. So, distribution of VIII-1 classroom (Post-Test) is normal.

6. Median

Interval class	Fm	Fk
40-46	2	2
47-53	3	5
54-60	4	9
61-67	6	15
68-74	7	22
75-81	6	28
82-88	4	32

Position of Me in the interval of classes is number 4, that:

Bb	: 74,5
Fk	: 15
fm	: 7
i	: 7
n	: 32
1/2n	: 16

50,	
Me	$= Bb + i[\frac{n_{/2} - Fk}{fm}]$
Me	$= 74,5 + 7[\frac{^{32}/_2 - 15}{7}]$
Me	$=74,5+7[\frac{16-15}{7}]$
Me	$=74,5+7[\frac{1}{7}]$
Me	= 74,5 + 7(0.14)
Me	= 74,5 + 0,9
Me	= 75,48

7. Modus

Interval class	Fm	Fk
40-46	2	2
47-53	3	5
54-60	4	9
61-67	6	15
68-74	7	22
75-81	6	28
82-88	4	32

Mo =
$$L + \frac{d_1}{d_1 + d_2} i$$

L = 74,5
 d_1 = 1
 d_2 = 1
 i = 7
Mo = $L + \frac{d_1}{d_1 + d_2} i$
Mo = 74,5 + $\frac{1}{1+1}$ 7
Mo = 74,5 + $\frac{1}{2}$ 7

Mo
$$= 74,5 + (0.5)7$$

Mo = 78

RESULT OF NORMALITY TEST IN POST TEST

RESULT OF THE NORMALITY TEST OF VIII-2 IN POST-TEST

1. The score of VIII-2 in post-test from low score to high score:

35	45	50	60	60	65	70	75
40	45	55	60	60	65	70	80
40	50	55	60	60	65	75	80
45	50	55	60	60	70	75	80

2. High = 80 Low = 35 Range = High - Low = 80 - 35 = 45 3. Total Classes = 1 + 3,3 log (n) = 1 + 3,3 log (32) = 1 + 3,3 (1,50) = 1 + 4,95 = 5,95 = 6

4. Length of Classes = $\frac{range}{total of class} = \frac{45}{6} = 7.5 = 7$

5. Mean

Interval class	F	Mid Point	Х	fx	x^2	fx ²
35-41	3	38	+3	9	9	27
42-48	3	45	+2	6	4	12
49-55	6	52	+1	6	1	6
56-62	8	59	0	0	0	0
63-69	4	66	-1	-3	1	3

70-76	6	73	-2	-12	4	24
77-83	4	81	-3	-9	9	27
i=7	32			-3		99

$$M_{x} = M^{1} + i\frac{\sum fx^{1}}{N}$$

$$= 59 + 7 \left(\frac{-3}{32}\right)$$

$$= 59 + 7 \left(-0,09\right)$$

$$= 59 + -0,63$$

$$= 58,37$$

$$SD_{t} = i\sqrt{\frac{\sum fx^{2}}{n}} \left(\frac{\sum fx^{1}}{n}\right)^{2}$$

$$= 7\sqrt{\frac{99}{32}} - \left(\frac{-3}{32}\right)^{2}$$

$$= 7\sqrt{3,09 - (-0,09)^{2}}$$

$$= 7\sqrt{3,08}$$

$$= 7 \times 1,75$$

$$= 12,25$$

Table of Normality Data Test with Chi kuadrad Formula

Interval of score	Real upper limit	Z-score	Limit of large of area	Large of area	Fe	Fo		
35-41	41,5	-1,40	0,4190	0,13	4,16	3	-1,16	-0,27
42-48	48,5	-0,80	0,2881	0,19	6,08	3	-3,08	-0,50
49-55	55,5	-0,23	0,0910	0,03	0,96	6	5,04	5,27
56-62	62,2	0,32	0,1293	0,18	5,76	8	2,24	0,38

63-69	69,5	0,90	0,3159	0,11	3,52	3	-0,52	-0,14
70-76	76,5	1,48	0,4306	0,04	1,28	6	4,72	-3,68
77-83	83,5	2,05	0,4798	0,06	1,92	3	1,08	0,56
								1,60

Based on the table above, the researcher found that $x_{count}^2 = 1,60$ while $x_{table}^2 = 7.815$ cause $x_{count}^2 < x_{table}^2 (1,60 < 7.815)$ with degree of freedoom (dk) = 6-3 = 3 and significant level $\alpha = 5\%$. So, distribution of VIII-2 classroom (post-test) is normal.

6. Median

Interval class	Fm	Fk
35-41	3	3
42-48	3	6
49-55	6	12
56-62	8	20
63-69	3	23
70-76	6	29
77-83	3	32

Position of Me in the interval of classes is number 4, that:

Bb	: 55,5
Fk	: 12
fm	: 8
i	:7
n	: 32
1/2n	: 16
So,	

Me =
$$Bb + i[\frac{n/2 - Fk}{fm}]$$

Me = $55,5 + 7[\frac{32/2 - 12}{8}]$
Me = $55,5 + 7[\frac{16 - 12}{8}]$
Me = $55,5 + 7[\frac{4}{8}]$
Me = $55,5 + 7(0.5)$
Me = $55,5 + 3,5$
Me = 59

7. Modus

Interval class	Fm	Fk
35-41	3	3
42-48	3	6
49-55	6	12
56-62	8	20
63-69	3	23
70-76	6	29
77-83	3	32

Mo =
$$L + \frac{d_1}{d_1 + d_2}i$$

L = 55,5
 d_1 = 4
 d_2 = 5
 i = 7
Mo = $L + \frac{d_1}{d_1 + d_2}i$
Mo = 55,5 + $\frac{4}{4+5}$ 7
Mo = 55,5 + $\frac{4}{9}$ 7
Mo = 55,5 + (0.44)7

Mo
$$= 55,5 + 3,08$$

APPPENDIX 10

HOMOGENEITY TEST POST TEST

Calculation of parameter to get variant of the first class as experimental class sample by using direct method and variant of the second class as control class sample by using conventional method are use homogeneity test by using formula:

$$S^{2} = \frac{n \sum x_{1}^{2} - (\sum x_{i})^{2}}{n (n-1)}$$

Hypotheses:

$$H_0 \qquad : \delta_1^2 = \delta_2^2$$

$$\mathbf{H}_1 \qquad : \delta_1^2 \neq \delta_2^2$$

C. Variant of the VIII-1 class is:

No	Students Initial Name	Post Test	X^2
1	AAH	50	2500
2	AAH	65	4225
3	AEDS	65	4225
4	AHH	75	5625
5	BSH	70	4900
6	DS	70	4225
7	DPA	50	2500
8	DA	80	6400
9	EA	75	5625
10	ENS	70	4900
11	GSH	70	4900
12	HP	75	5625
13	HM	85	7225
14	IS	70	4900

15	KDR	85	7225
16	LA	60	3600
17	MTPS	80	6400
18	MR	65	4225
19	MAL	70	4900
20	NPMN	55	3025
21	NL	70	4900
22	NM	75	5625
23	PAL	40	4900
24	RAY	85	7225
25	RAF	65	4225
26	RSE	50	2500
27	RHA	40	4900
28	RAS	85	7225
29	SH	65	4225
30	SRH	65	4225
31	SAL	60	3600
32	THS	55	3025
		2140	153725
		1	

- n = 32
- $\sum x_i = 2.140$

 $\sum x_i^2 = 153725$

So,

$$S^{2} = \frac{n \sum x_{1}^{2} - (\sum x_{i})^{2}}{n (n-1)}$$
$$= \frac{32 (153.725) - (2,140)^{2}}{32 (32-1)}$$

$$=\frac{4.919.200-4.579.600}{992}$$
$$=\frac{339.600}{992}$$

$$S^2 = 342,33$$

D. Variant of the VIII-2 class is:

NO	Students Initial Name	Post-Test	X^2
1	ALS	50	2500
2	ASH	40	1600
3	FAS	65	4225
4	FES	55	3025
5	GHJ	65	4225
6	JSM	45	2025
7	JHG	60	3600
8	LWH	75	5625
9	LPS	35	1225
10	MSL	65	4225
11	MNCS	45	2025
12	OKS	60	3600
13	OSS	80	6400
14	PJN	60	3600
15	PHW	40	1600
16	RS	70	4900
17	REP	80	6400
18	RWS	70	4900
19	RVS	75	5625
20	RA	50	2500

21	RMVA	60	3600
22	RLE	45	2025
23	RAZ	60	3600
24	SGA	55	3025
25	SLH	60	3600
26	SGA	55	3025
27	WP	60	3600
28	YSM	55	3025
29	YGSPB	60	3600
30	AMS	55	3025
31	HS	60	3600
32	SS	60	3600
		1870	113150

n = 32

$$\sum x_i$$
 = 1,870
 $\sum x_i^2$ = 113150
So,

$$S^{2} = \frac{n \sum x_{1}^{2} - (\sum x_{i})^{2}}{n (n-1)}$$
$$= \frac{32 (113150) - (1870)^{2}}{32 (32-1)}$$
$$= \frac{3.620.800 - 3.496.900}{992}$$
$$= \frac{123,900}{992}$$
$$S^{2} = 124,89$$

The formula was used to test hypothesis was:

2. III-1 and VIII-2

$$F = \frac{The Biggest Variant}{The Smallest Variant}$$
$$F = \frac{342,800}{124,89}$$

= 2,74

APPENDIX 11

T-test of the Both Averages in Pre-Test

The formula was used to analyze homogeneity test of the both averages was t-test, that:

$$Tt = \frac{x_1 - x_2}{\sqrt{\left(\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2\right)}{n_1 + n_2 - 2}} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$Tt = \frac{58.09 - 52.81}{\sqrt{\left(\frac{(32 - 1)143.32 + (32 - 1)152.82)}{32 + 32 - 2} \left(\frac{1}{32} + \frac{1}{32}\right)}}$$

$$t = \frac{58.09 - 52.81}{\sqrt{\left(\frac{(31)143.32 + (31)152.82)}{62} \left(0.03 + 0.03\right)}}}$$

$$t = \frac{58.09 - 52.81}{\sqrt{\left(\frac{4.442.93 + 4.737.42}{62} \left(0.6\right)}\right)}}$$

$$t = \frac{58.09 - 52.81}{\sqrt{\left(\frac{9.180.35}{62} \left(0.6\right)}}$$

$$t = \frac{58.09 - 52.81}{\sqrt{(148.07(0.6))}}$$

$$t = \frac{5.28}{\sqrt{88842}}$$

$$t = \frac{5.28}{2.98}$$

$$t = 1,77$$

Based on researcher calculation result of hypothesis test of both of avarages, researcher found that $t_{count} = 1,77$ with opportunity $(1-\alpha)=1-5\% = 95\%$ and dk =n1+n2-2= 32+32-2= 62, researcher found that $t_{table} = 2.39$ cause $t_{count} < t_{table}$ (1,77<2.39). So, Ha was rejected, it means that there is no difference in average between experimental class and control class in pre-test.

T-test of the Both Averages in Post-Test

The formula was used to analyze homogeneity test of the both averages was t-test, that:

$$Tt = \frac{x_1 - x_2}{\sqrt{\left(\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2\right)}{n_1 + n_2 - 2}} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$Tt = \frac{75.48 - 58.37}{\sqrt{\left(\frac{(32 - 1)342,300 + (32 - 1)142,89)}{32 + 32 - 2} \left(\frac{1}{32} + \frac{1}{32}\right)}}$$

$$t = \frac{75.48 - 58.37}{\sqrt{\left(\frac{(31)342,300 + (31)142,89)}{62} \left(0.03 + 0.03\right)}}$$

$$t = \frac{75.48 - 58.37}{\sqrt{\left(\frac{10.611,300 + 4.429,59}{62} \left(0.06\right)\right)}}$$

$$t = \frac{75.48 - 58.37}{\sqrt{\left(\frac{10.615729}{62} \left(0.06\right)\right)}}$$

$$t = \frac{75.48 - 58.37}{\sqrt{\left(171,221(0.06)\right)}}$$

$$t = \frac{17,11}{\sqrt{10,27}}$$

$$t = \frac{17,11}{3,20}$$

$$t = 5,31$$

Based on researcher calculation result of hypothesis test of both of avarages, researcher found that $t_{count} = 5,31$ with opportunity $(1-\alpha)=1-5\% = 95\%$ and dk =n1+n2-2= 32+32-2= 62, researcher found that $t_{table} = 2.39$ cause $t_{count} < t_{table}$ (5,31<2.39). So, Ha was rejected, it means that there is no difference in average between experimental class and control class in pre-test.

APPENDIX 13

DOCUMENTATION



1. Pre-Test in Experimental Class



2. Pre-Test in Control Class

3. Treatment in Experimental Class



4. Post-Test in Experimental Class



5. Post-Test in Control Class



PEMERINTAII KOTA PADANGSIDIMPUAN DINAS PENDIDIKAN SMP NEGERI 5 PADANGSIDIMPUAN JI. Perintis Kemerdekaan No. 61 Padangsidimpuan Selatan Telp. (0634)22255 Kode Pos 22727

SURAT KETERANGAN NOMOR : 422 /204/ SMP.5/ 2021

Yang bertanda tangan dibawah ini Kepala SMP Negeri 5 Padangsidimpuan di Padangsidimpuan, menerangkan bahwa:

Nama	: LINDA SARI LUBIS
NIM	: 1620300013
Fakultas	: Tarbiyah dan Ilmu Keguruan
Jurusan	: Tadris/Pendidikan Bahasa Inggris

benar telah mengadakan penelitian (Riset) di SMP Negeri 5 Padangsidimpuan pada tanggal 9 April 2021 sampai dengan selesai, guna untuk melengkapi penelitiannya yang berjudul : "The Effect of Word Search Puzzle Game to Vocabulary Mastery at the VIII Grade Students of SMP Negeri 5 Padangsidimpuan", sesuai dengan surat Dekan Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan, Nomor : B-406/In. 14/E.1/TL.00/04/2021 tanggal 8 April 2021.

Demikianlah surat keterangan ini dibuat dengan sebenarnya untuk dipergunakan seperlunya.

