THE EFFECT OF WORD WEBBING TECHNIQUE ON THE STUDENTS' VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG KUTALIMBARU

A SKRIPSI

Submitted to the Faculty of Tarbiya and Teachers Training State Islamic University of North Sumatra Medan as a Partial Fulfillment of the Requirements for the Degree of SarjanaPendidikan

BY

Siti Lutfiah Rabiyatul Adawiyah

Registration Number : 0304162101

DEPARTMENT OF ENGLISH EDUCATION

FACULTY OF TARBIYA AND TEACHERS TRAINING

STATE ISLAMIC UNIVERSITY OF NORTH SUMATRA MEDAN

2020

THE EFFECT OF WORD WEBBING TECHNIQUE ON THE STUDENTS'

VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG

KUTALIMBARU

A SKRIPSI

Submitted to the Faculty of Tarbiya and Teachers Training State Islamic University of North Sumatra Medan as a Partial Fulfillment of the Requirements for the Degree of Sarjana Pendidikan

By:

Siti Lutfiah Rabiyatul Adawiyah

Registration Number : 0304162101

Adviser I	Adviser II

Prof. Dr. Didik Santoso , M.Pd   **Drs. H. Achmad Ramadhan, M.A**

NIP. 19660616 199403 1 006   **NIP. 19660115 1994031 002**

DEPARTMENT OF ENGLISH EDUCATION

FACULTY OF TARBIYA AND TEACHERS TRAINING

STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA MEDAN

2020

Nomor : Istimewa   Medan, 28 September 2020

Lampiran : -   Kepada Yth,

Prihal : Skripsi   Bapak Dekan Fakultas Tarbiyah

a.n. Siti Lutfiah Rabiyatul   dan Keguruan UIN Sumatera Utara

Adawiyah   di-

                                    Tempat

Assalamualaikum Wr. Wb.

Setelah membaca, meneliti, mengoreksi dan memberi saran-saran perbaikan seperlunya terhadap skripsi saudara

Nama   : Siti Lutfiah Rabiyatul Adawiyah

NIM   : 0304162101

Jurusan   : Tadris Bahasa Inggris

Judul   : **THE EFFECT OF WORD WEBBING ON THE STUDENTS'**

              VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG

              KUTALIMBARU

Dengan ini kami telah menilai skripsi tersebut dapat disetujui untuk diajukan dalam Sidang Munaqasah Skripsi pada Fakultas Ilmu Tarbiyah dan Keguruan UIN Sumatera Utara.

Demikian kami sampaikan, atas perhatiannya, kami ucapkan terimakasih.

Wassalamualaikum Wr. Wb.

                                    Medan, 28 September 2020

Pembimbing I   Pembimbing II

Prof. Dr. Didik Santoso , M.Pd   **Drs. H. Achmad Ramadhan, MA**
NIP. 19660616 199403 1 006   NIP. 19660115 1994031 002

KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI SUMATERA UTARA
FAKULTAS ILMU TARBIYAH DAN KEGURUAN
Jl. Williem Iskandar Psr. V Telp. 6615683-6622683 Medan Estate 20731 email: ftiainsu@gmail.com

SURAT PENGESAHAN

Skripsi yang berjudul : **"THE EFFECT OF WORD WEBBING ON THE STUDENTS' VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG KUTALIMBARU"** oleh **Siti Lutfiah Rabiyatul Adawiyah** yang telah dimunaqasyahkan dalam sidang munaqasyah Sarjana Strata Satu (S1) Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Sumatera Utara Medan pada tanggal :
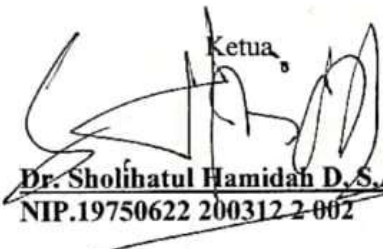
28 September 2020
10 Shafar 1442

dan telah diterima sebagai persyaratan untuk memperoleh gelar Sarjana Pendidikan (S.Pd) pada jurusan Pendidikan Bahasa Inggris Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Sumatera Utara Medan.

Medan, 28 September 2020

Panitia Sidang Munaqasyah Skripsi
Fakultas Ilmu Tarbiyah dan Keguruan UIN SU Medan

Ketua   Sekretaris

Dr. Sholihatul Hamidah D, S.Ag, M.Hum   **Reflina, M.Pd**
NIP.19750622 200312 2 002   NIB.11000000078
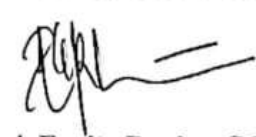
Anggota Penguji:

1. **Prof. Dr. Didik Santoso , M.Pd**   2. **Drs. H. Achmad Ramadhan, MA**
   NIP. 19660616 199403 1 006   NIP 19660115 1994031 002

3. **Dr. Abdillah, M.Pd**   4. **Ernita Daulay, S.Pd, M.Hum**
   NIP. 19680805 199703 1 002   NIP. 19801201 200912 2 003

Mengetahui
Dekan Fakultas Ilmu Tarbiyah dan Keguruan

Drs. Amiruddin Sahaan, M.Pd
NIP. 19601006 199403 1 002

PERNYATAAN KEASLIAN SKRIPSI

Yang bertanda tangan dibawah ini:

Nama : Siti Lutfiah Rabiyatul Adawiyah

NIM : 0304162101

Jurusan/Prodi : Tadris Bahasa Inggris

Judul : **THE EFFECT OF WORD WEBBING ON THE STUDENTS'**
VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG
KUTALIMBARU

Menyatakan dengan ini sebenar-benarnya bahwa skripsi yang berjudul diatas adalah asli dari buah fikiran saya, kecuali kutipan-kutipan di dalamnya sebagai sumbernya.

Apabila dikemudian hari saya terbukti atau dapat dibuktikan ini hasil jiplakan, maka gelar dan ijazah yang diberikan oleh universitas batal saya terima.

Medan, 28 September 2020

Yang membuat pernyataan

Siti Lutfiah Rabiyatul Adawiyah
NIM. 0304162101

ABSTRACT

SITI LUTFIAH RABIYATUL ADAWIYAH (0304162101). THE EFFECT OF WORD WEBBING TECHNIQUE ON THE STUDENTS' VOCABULARY MASTERY AT SMP SWASTA GALIH AGUNG KUTALIMBARU

Skripsi, Medan: Department of English Education, Faculty of Tarbiya and Teachers Training, State Islamic University of North Sumatera, Medan 2020.

Keyword : Vocabulary Mastery, Word Webbing Technique

The objective of this study is to know whether students' vocabulary mastery taught by word webbing technique is better than without word webbing technique. The method of this research is quantitative with the experimental research design. The population of this study was the 260 students at seventh grade of SMP Swasta Galih Agungwith two groups, experimental class consists of 21 students and control class consists of 27 students. The researcher taught the experimental class by using word webbing technique and control class taught without using word webbing technique. To collect the data the researcher used vocabulary test in multiple choice as the instrument. The test is post test, given by the researcher after giving the treatment. The data were calculatedby using t-test formula with the degree freedom (df) = 46 at the level of significance 0.05. it was found that t_{count} value was 10,491 and t_{table} was 2,000. After analyzing the data, it was found that t_{count} is higher than t_{table}. It means that Ha is accepted and Ho is rejected . It can be concluded that the students' vocabulary mastery taught by word webbing technique is better than without word webbing technique.

In the name of Allah, the Most Gracious, the Most Merciful.

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, praises belong to the creature of this world and everything inside it, Allah SWT who always gives usblessing, health, time, therefore the researcher could finish this paper as fast as possible. Sholawat and salam be upon to Allah's messenger, Muhammad SAW as the great example of Allah's creature. Similarly, to his family, best friends, and his loyal followers, may Allah always protect and bless them all forever.

This skripsi with the title "The Effect of Word Webbing Technique on the Students' Vocabulary Mastery at SMP Swasta Galih Agung", is written in order to fulfill one of the requirements to obtain sarjana pendidikan State Islamic University of North Sumatera (UINSU) Medan.

When the researcher conducted the research, she had faced a lot of difficulties especially in this Covid-19 situation.It was so hard to find the references, the data in order to arrange this paper narrowly. Thus, the researcher perceives and appreciatesall people who had leaded, assisted, upholded and given moral support, amazing love and positive energy so that the researcher could finish this skripsi narrowly. For that reason, the researcher would like to state the deepest thankfulness to:

1. **Prof. Dr. K.H. Saidurrahman Harahap, M.Ag** as the Rector of State Islamic University of North Sumatra (UINSU);

2. **Dr. Amirruddin Siahaan, M.Pd** as the dean of Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera;

3. **Dr. Sholihatul Hamidah Daulay, M.Hum** as the head of English Education Department;

4. **Reflina, M.Pd**, as the secretary of English Education Department;

5. **Prof. Dr. Didik Santoso, M.Pd** as the first adviser who had guided supported, suggested and correctedmy skripsi from the first until the end;

6. **Drs. H. Achmad Ramadhan, M.A** as the second adviser who had guided supported, suggested and corrected my skripsi so that this skripsi can be finished on time.

7. **Ust. H. Harun Lubis, S.T., M.Psi** as the leader of Pesantren Darularafah Raya who allowed me in doing the research in SMP Swasta Galih Agung.

8. **Ust. Nirwansyah, M.Pd** as the headmaster at SMP Swasta Galih Agung who allowed me in doing the research in SMP Swasta Galih Agung.

9. My deepest thankfulness to my beloved parents **Mr. Mudianto, SP., M.Si** and **Mrs. Hafizah Rayani, S.Pdi** who have mentioned my name in their prayers, given unconditional love, moral and financial support, so I could finish my undergraduate. And also to my one and only brother(**Muhammad Fizdian Arismunandar, S.T., M.M**), my lovely sister (**Siti Mutiah Ulfha, SE**), my sister in law (**Andina Halimsyah Rambe, M.Pd**), and my nephew (**Anindyan Nasywa Zhafira**) thanks for giving me warm hug, for everything, for always being there whenever I need.

10. Thanks toall my comrades at UIN-SU Medan especially my classmates PBI-II for these four years been together through difficult university life.

11. And also my close friends; Nurhalimah, Sri Ngennana, Khairul Azmi Siagian, Khairuna Fajrin Ritonga, Almira Asyda Dalimunthe, Liza Rahmi Aini, all members of Ashabul Jannah, and Latiffor supporting during my research. Thanks for the comradeship and unforgettable times.

In the end, the researcher wish that she could state truthful thanks to all people could not be mentioned one by one that had a role in helping doing this research. The researcher knows there are many mistakes and human errors in writing this skripsi. The researcher permits all people who read this skripsi to give critisism and correction so that this skripsi can be a good one for the next skripsi.

Medan,28th of September 2020

Siti Lutfiah Rabiyatul Adawiyah

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

A. The Background of the Problem

English as a foreign language has four skills which are listening, speaking, reading, and writing. Reading, listening, writing, and speaking skills need a huge vocabulary acquisition. Vocabulary is the most important part that students need to learn. Wilkins states that without grammar very little can be conveyed, without vocabulary nothing can be conveyed.[1] This statement shows that the learners will not be able to communicate if they do not know any word of the language will be spoken, even though they understand the rules to construct the sentences. It is better to spend most of the time to learn more words rather than to study grammar because the students will see the most improvement from learning words.

Vocabulary is the basic tool for those who want to be able to communicate in other languages. Mastering a lot of vocabularies will make students better in writing, speaking, listening, and reading. Contrariwise, without mastering enough words students may find some difficulties in learning English. Mastering vocabulary means knowing the words in the language used. Whenever someone communicates in one language, it will be automatically he use the words from that one language. If somebody has sufficient numbers of vocabulary, it will be easy to comprehend either written or spoken text. Therefore, it is crucial to have a limited number of vocabulary. Thornbury said that the students need to

---

[1] Jeanne McCarten. (2007). *Teaching Vocabulary: Lesson from Corpus Lesson for the classroom.* New York: Cambridge University Press. p. 20.

master about 2000 words to be able to communicate.[2] This is the reason why students need to master many words in the target language so there will be a communication.

Furthermore, the importance of mastering vocabulary can trigger the practice of Teaching English (ELT). Also in Indonesia, it shows that teaching and learning vocabulary was ignored in learning English.[3] Kris in Dewi Nur Aisyah found that teachers and learners did not have sufficient knowledge on the strategies how to learn vocabulary. The teacher did not realize that it is important to know the strategies on how to learn vocabularies. The English curriculum also did not consist of how the vocabulary learning strategies.[4] It can cause a dangerous problem as though the   lack of vocabulary. Priyono said the limitation of vocabulary is Indonesian EFL students' main problem.[5] It may have something with how the teachers teach and the students learn the vocabulary.

The researcher also found the same problem in SMP Swasta Galih Agung. The data got from interviews and observations with the English teacher and from the vocabulary list of the students shows that the students only approximately master 150-350 words counted since they are in Junior High School. While according to Departemen Pendidikan Nasional 2006 (Department of National Education), in order to understand and can master four language skills such as

---

[2] Scott Thornbury. (2002). *How to Teach Vocabulary*. Longman: Pearson Education Limited. p. 21.

[3] Bambang Cahyono, Y. and Utami Widiati. (2008). The Teaching of EFL Vocabulary in Indonesian Context: The State of The Art. *TEFLIN Journal*, 19(1).

[4] Dewi Nur Aisyah. (2017). The Vocabulary Teaching and Vocabulary Learning :Perception, Strategies, and Influences on the Student's Vocabulary Mastery. *Jurnal Bahasa Lingua Scientia,* 9(2). p. 295-296.

[5] Priyono. (2004). *Logical Problems of Teaching English as a Foreign Language in Indonesia*. Malang: State University of Malang Press. p. 17-28.

listening, reading, writing, and speaking, Junior High School students are supposed to master approximately 1500 words.[6]

The difficulties in memorizing and understanding English vocabulary are one of the reasons than can cause lacking vocabulary. One word can have a different meaning in a different context. English is also difficult to learn because there is difference between how to write and how to pronounce the word. This situation makes the students are uninterested in learning English.

There are two factors that can cause the low level of vocabulary mastery: internal and external. The first is internal factors such as personality, interest, motivation, and learning style. The second is external factors such as teacher's performance, teaching approach, facilities, friends and environment, strategy, etc.

The practice of teaching vocabulary which is typically done in several schools also makes students do not have initiatives and creativity. The teacher only teaches vocabulary written on students' handbook or found in the text. Furthermore, the teacher always asks the students to look for the meaning of vocabulary in their dictionaries. It makes students lazy to do that. As a result, they can only use the words in the exact form they have learned and knot knowing how to use the words in different contexts in real communication.

Furthermore, it can be identified that the teacher might not use the proper technique in the class related to the students' condition. The teacher seldom teaches vocabulary separately. Some words that students had memorized just stay in students' short-term memory. Many students could easily forget the words they

---

[6]Ratna Zawil. (2006). Using Make A Match Technique to Teach Vocabulary. *English Education Journal (EEJ),* 7 (3). p.312.

had already memorized. Though, the vocabularies that students have memorized are supposed to stay in students' long-term memory.

To solve this problem, it needs teacher's creativity in teaching to make students interested to study vocabulary. The researcher suggests to all teachers to apply the proper technique in teaching vocabulary. There are a lot of techniques, methods, and strategies in English teaching and learning processes that can help either student in mastering vocabulary or teacher to make teaching English effectively. Therefore, the researcher would like to use an alternative technique "Word-Webbing" to improve students' vocabulary mastery. Word webbing is an enjoyable and fresh way of teaching vocabulary. This will stimulate students to be more active and think individually on how they can create a word connects with other words.

Word webbing technique helps learners easier improve their vocabulary mastery. By applying this technique, the students could expand their ideas or words based on what they know. The technique is helpful because the students are not supposed to master random words that the teacher asks. Students could mention freely all the words that have a connection with the keyword. The students can make a circle or square and make the line to connected words and so on. It is interesting for learners to learn in the classroom so every student will be an active participant and have their own turn.

Based on this background, the researcher was interested in conducting research and find out :**"The Effect of Word Webbing Technique on the Students' Vocabulary Mastery at SMP Swasta Galih Agung Kutalimbaru"**.

B. The Identification of the Problem

Based on the explanation in background of the study, it can be identified the problems related to this study such as: 1) Most of the students are difficult to understand and memorize of vocabulary, especially content words; 2) Most of the students do not know how to pronunce the words well; 3) Most of students do not know the meaning of the words; 4) The teacher's strategy and method in teaching English is inappropriate and, 5) Etc. Because there are many problems that can be researched, the researcher would like to limit them.

C. The Limitation of the Problem

That are many factors that can be the cause of the low level of vocabulary mastery: personality, motivation, learning style, material, teachers' performance, media, environment, and including teaching technique. Teaching technique can influence the students' vocabulary mastery because it will go a long way toward effectively conveying ideas, concepts, and facts to the students. There are many kinds of teaching techniques: crossword technique, corus repetiton, clustering, and word webbing. Word webbing can influence vocabulary mastery because it helps students to expand ideas or works.

Therefore the researcher would like to conduct a research about the effect of word webbing technique on the students' vocabulary mastery at SMP Swasta Galih Agung Kutalimbaru.

D. The Research Question

In background of the research, the researcher specified the research in the effect of word webbing technique on the students' vocabulary mastery in learning

English at SMP Swasta Galih Agung. Then the research question which the researcher was researching is: Is the students' vocabulary mastery taught by using word webbing technique better than without word webbing technique?

E.   The Objective of the Study

In line with the identification of the problem, the objective of this study is: to know whether students' vocabulary mastery taught by word webbing technique is better than without word webbing technique.

F.   The Significance of the Study

Theoritically, this study is useful to enrich the theory of teaching vocabulary. Practically, this research is significant for: 1) The students as an input to help them in improving their vocabulary mastery; 2) The English teachers as an input their skills in teaching vocabulary; 3) The headmaster as an input to improve teachers' quality in doing better instruction.

CHAPTER II

LITERATURE REVIEW

A. Theoretical Framework

In conducting research, a theory is needed to explain several concepts. The theoretical framework aims to provide a clear picture and perception that is applied in this study so that there is no misinterpretation of several terms related to the research.

1. Vocabulary Mastery

Crystal said that vocabulary is the Everest of language. There is no larger task than to look for order among the hundreds of thousands of words that comprise the lexicon.[7] For that, someone can communicate in a certain language first needs to master many words from that particular language.

The students can speak fluently, write easily, understsand what they read, and understand what others speak if they master vocabulary. The vocabulary is a very important basic skill in learning English. In line with Richard that states "Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write".[8] This means that vocabulary mastery will make it easier for students to learn languages if they have good vocabulary mastery.

Vocabulary is a very important element in learning a language. Learning a language cannot be centered only on learning vocabulary, but anyhow that is no

---

[7] David Crystal. (1995). *The Cambridge Encyclopedia of the English Language*. Cambridge: Cambridge University Press. p. 119.

[8] Richard. (2005). *Methodology in Language Teaching: An Anthology of Current Practice*. Newyork: Cambridge University Press. p. 255.

matter how good the students in grammar or communication, without words to express meanings, all of them are just useless.

Vocabulary is the fundamental thing in learning a language and one of the important aspects of learning English. Vocabulary builds up the language. How well someone can communicate with English depends on how many vocabularies mastered. The teacher is expected to provide a good technique to ensure that the students have a good achievement in vocabulary. One way to create an interesting teaching-learning vocabulary activity is by involving the students. It can be the students' centered activity rather than teacher-centered.

Allah SWT has mentioned in the holy Qur'an about vocabulary, so that people know the names of things in this world. Allah says in Al-Baqarah: 31-32

وَعَلَّمَ ءَادَمَ ٱلْأَسْمَآءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى ٱلْمَلَـٰٓئِكَةِ فَقَالَ أَنۢبِـُٔونِى بِأَسْمَآءِ هَـٰٓؤُلَآءِ إِن كُنتُمْ

صَـٰدِقِينَ ۝ قَالُوا۟ سُبْحَـٰنَكَ لَا عِلْمَ لَنَآ إِلَّا مَا عَلَّمْتَنَآ إِنَّكَ أَنتَ ٱلْعَلِيمُ ٱلْحَكِيمُ ۝

Meaning: And Allah taught Adam all of the names. Then Allah showed them to the angels and said, "Inform Me of the names of these, if you are truthful." They said, "Exalted are You; we have no knowledge except what You have taught us. Indeed, it is You who is the Knowing, the Wise." [9]

From above verse, the writer concludes that Allah SWT taught Adam all names completely, which gave him the potential to know all the knowledge about names, words or terms used to designate objects, or teach objects of interest. This

---

[9] https://quran.com/, accessed on 17th January 2020.

verse says that Allah has created the human potential to know the name or purpose and characteristics of things, such as the wind of fire, etc. He was also given the potential to speak. Regarding learning a language, it is very important to teach vocabulary to the students, so that they know the purpose of learning vocabulary. It is difficult to understand both spoken and written language without mastering vocabulary.

Our prophet Muhammad SAW also mentioned the importance of learning language which can be seen in the following hadith:

تَعَلَّمْ كِتَابَ الْيَهُوْدِ فَإِنِّي لاَ آمَنُهُمْ عَلَى كِتَابِنَا

Meaning : "Study the Jewish Scriptures actually I do not believe their attitude towards our book. " (At-tirmidzi)

This verse is related to vocabulary learning. Someone who does not see the meaning of the vocabulary, will get difficulty understanding in spoken or written, reading and listening to other people. Therefore, vocabulary mastery is needed to increase the ability of students in understanding languages.

The more words learners master, the better they will catch what they listen and see. Furthermore, the more words they have, the more accurate they will be in expressing their ideas in spoken or written.[10]As the result, the more word we have, the more effective we can communicate.

---

[10] Retno Trihandayani. (2006). The Effectiveness Of Using Computer Game "Fast Hands" To Improve Students' Vocabulary Mastery For Junior High School. *Journal of English Language Teaching*. p. 2.

There are two types of vocabularies according to Gairn and Redman. They are receptive vocabulary and productive vocabulary.[11] Receptive vocabulary is vocabulariy that can be understood and comprehended in context. It can be understood only through listening and reading. This type of vocabulary can be recognized by hearing and seeing. A large number of items in the receptive vocabulary were very low frequency words. Students do not need to know much about it, because it is rarely used and it is impossible to memorize all the words in a particular language. Conversely, students can understand the ideas of speech contextually rather than word for word.

Productive vocabulary is vocabulary that is still used productively in written and spoken form. It can be used in speaking and writing. It involves how to pronounce, write and spell words, how to use them in a grammatically correct pattern along with words, and how to use them in appropriate situations. This is more difficult to put into practice. The learners are supposed to be able to write and pronounce it well to use productive vocabulary.

Stahl states that there are four types of vocabulary which must be mastered for reading, writing, listening, and speaking skill, they are:[12]

a. Reading Vocabulary

Reading vocabulary is the words that a person can recognize while reading. One can read and understand many unused words in speaking vocabulary. It is the largest type of vocabulary only because it belongs to another type of

---

[11] R. Gaims and S. Readman. (1986). *Working with Words: A Guide to Teaching and Learning Vocabulary*. Cambridge: Cambridge University. p. 64-65.
[12] Yuliani Kartika. (2018). *The Effect of Picture Annotation with Memorization on Students' Vocabulary Mastery*. Thesis. State University of Medan. p.13.

vocabulary if you are a reader, but if you are not, you cannot develop your vocabulary.

b. Listening Vocabulary

Listening vocabulary is all the words that a person can recognize when listening to speech. This vocabulary measurement is assisted by contests and tone and voice.

c. Writing Vocabulary

Writing vocabulary is all the words someone can employ in writing. Contrary to the previous two vocabulary types, the writing vocabulary is stimulated by its user. Writing vocabulary is strongly influenced by the words that someone can spell.

d. Speaking Vocabulary

Speaking vocabulary is all the words a person uses in speech. Due to the spontaneous nature of speaking vocabulary, words are often lost. This may be compensated for by facial expressions, tone of voice or hand movements.

Conclusions regarding the types of vocabulary above, it is very important for teachers and students to know and understand the types of vocabulary before carrying out the teaching and learning process. The vocabulary itself has a special dividing definition between vocabulary forms which can also influence teaching and learning goals.

From the statements of all definitions above, Vocabulary is a central part of a language that all people use to express ideas or information as necessary to

communicate. With an extensive vocabulary, people will be able to use the structures and functions they may have learned for understandable communication.

Mastery is a construct that cannot be observed directly but can be inferred from observable performance on a set of items or tasks related to a particular concept, skill, or subject.[13] To verify students' vocabulary mastery, the teacher can ask students to respond to a series of questions or to perform a series of tasks. Then, the teacher assesses the adequacy of their responses or performance as measured by certain criteria. The teacher can also determine mastery by providing several forms of assessment to students. If the teacher wants students to achieve mastery on a particular task or assignment, the teacher must ensure students can understand the objectives and must articulate clearly to students what constitutes mastery.

Vocabulary mastery, according to, Marksheffel is the ability to give meaning to words.[14] The meaning of a word is important, but the problem is that one word does not always mean one. Sometimes it is even difficult to understand a word that has only one meaning. Therefore, it is necessary to know the literal meaning as well as the contextual meaning to understand the meaning of the word. Mastery of vocabulary is needed to express our ideas and to be able to understand what other people say. Vocabulary mastery is a person's great skill in using words in a language, which is obtained based on their own interests, needs, and

---

[13] Thomas R. Guskey and Eric M. Anderman. (2013). In *Search of a Useful Definition of Mastery. Educational, School, and Counseling Psychology*. Retrieved from. https://uknowledge.uky.edu/edp_facpub/10

[14] Didik Santoso. (2013). The Effect of Instructional Approaches on English Vocabulary Mastery of Economic Vocational School Students. Singapore:*Asia Pacific Journal of Linguistics*.

motivations. Mastery of vocabulary plays an important role in the four language skills and it must be noted that vocabulary mastery is one of the components needed in language.[15]

It can be concluded that vocabulary mastery is the competence to understand word stock and its meaning from a particular language.

2. Word Webbing Technique

a. The Definition

Word webbing technique is a graphic organizer strategy that provides a visual of how words or phrases connected to a topic.[16] The principle of vocabulary networks, also known as word webs or maps, mind maps, and word associations, explains that beyond the similarity, inversion and inclusion of word meanings, there is a complex and complex interconnection or network between groups of words.[17] Word webbing is a strategy that builds on prior knowledge of a word and explores related words. Partners will select the word content area and fill the web with related words. Working together on the web will gather students' prior knowledge and promote the use of the word in their spoken vocabulary.[18]

Techniques are what teachers use in the teaching and learning process in the classroom. Language teaching techniques are widely accepted as superordinate terms to refer to the various activities carried out by teachers or students in the

---

[15] Mofareh Alqahtani. (2015). The Importance Of Vocabulary In Language Learning And How To Be Taught. *International Journal Of Teaching And Education.* p. 26.

[16]Mofareh Alqahtani, Ibid., p. 77.

[17] Battu, R. Beesupogu. (2015). Enhancing the Regional Medium Students' Vocabulary Using Self-Directive Learning Techniques, *American Research Journal of English and Literature*. p. 9.

[18] Judith Stamper. (2006). *Vocabulary Building Graphic Organizers & Mini Lessons*. New york: scholastic teaching resources. p. 8.

classroom.[19] In the process, the teacher uses techniques to make a difference in teaching. Teachers can use different techniques on the same topic or different techniques for different topics. It depends on how the teacher manages the class. According to Brown, technique is one of a variety of exercises, activities, or tasks that are used in training activities, or tasks as a specific path used to achieve immediate goals.[20] Language learning techniques are explicit procedures or strategies to achieve certain learning goals. That means the technique is designed so that the teaching and learning process runs well.

According to Zarei, The collaborative techniques included Jigsaw, Rotating Circles, Snowball, Think-Pair-Square, and Word Webbing to improve students' vocabulary achievement. In this case, the main focus is word webbing.[21]

Word webbing is a technique that can be used to develop ideas or works. This technique is a useful way for students who like to develop their ideas or work, especially in learning vocabulary. Webbing works best when you want to showcase a multitude of words of ideas and keep them connected. From the given keywords, students can make their own words related to these keywords. First, students place an interesting topic in the middle of the web. After that, brainstorm students by asking what they know about these keywords. It may be different about how students relate words. Students can make it in a square or circle shape and connect the given word with other related words using a line. Students draw a line or branch of a topic and any words related to that topic. Each line consists of

---

[19] Brown, H. D. (2001). *Teaching by Principle: An Interactive Approach to Language Pedagogy 2ed.* San Francisco: Longman. p. 129.
[20]*Ibid*, Brown, H. D, p. 130.
[21] Abbas Ali Zarei and Maryam Sahami Gilani. (2013). L2 Vocabulary Learning Through Collaborative Technique. *International Journal of Language Learning and Applied Linguistics World. IJLLALW.* 4(1). p. 7.

words related to the topic. This fun and enjoyable way of teaching will make it easier for them to improve their vocabulary skills.

Word webbing also helps students to freely use their background knowledge that can be related to the topic they want to write about. In addition, students can make a list of words for the topic, then arrange them in graphical form, identify relationships by drawing lines to represent these relationships. By exploring the topics they are good at, students can be encouraged to develop vocabulary because this technique is more visual in nature.

The concept of word webbing is that students write simultaneously on chart paper, draw main concepts, supporting elements, and bridges that represent the relationship of ideas in a concept. The uses of teaching and learning word webbing are to analyze concepts into components, understand many relationships between ideas, and differentiate concepts.

The first stage of word webbing decides on a topic and places it in the center and then circles it. Next, write another word, circle it again and draw a line between it, the webbing creates something between the outline and the target map. It is very clear that webbing works easily.

The stage of webbing is described bellow:
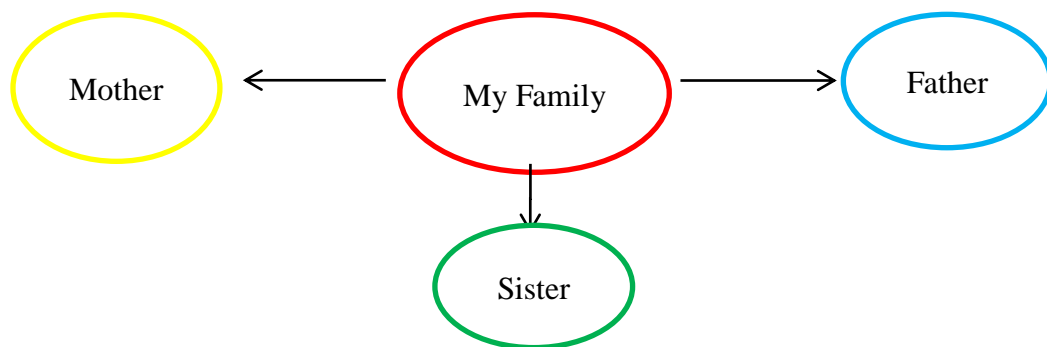
Figure 1 Chart of Word Webbing with Two Levels

The word webbing above is webbing with two levels. The use of different color is very useful to understand easily. After this stage, adding the level can develop webbing. The following is webbing three levels:
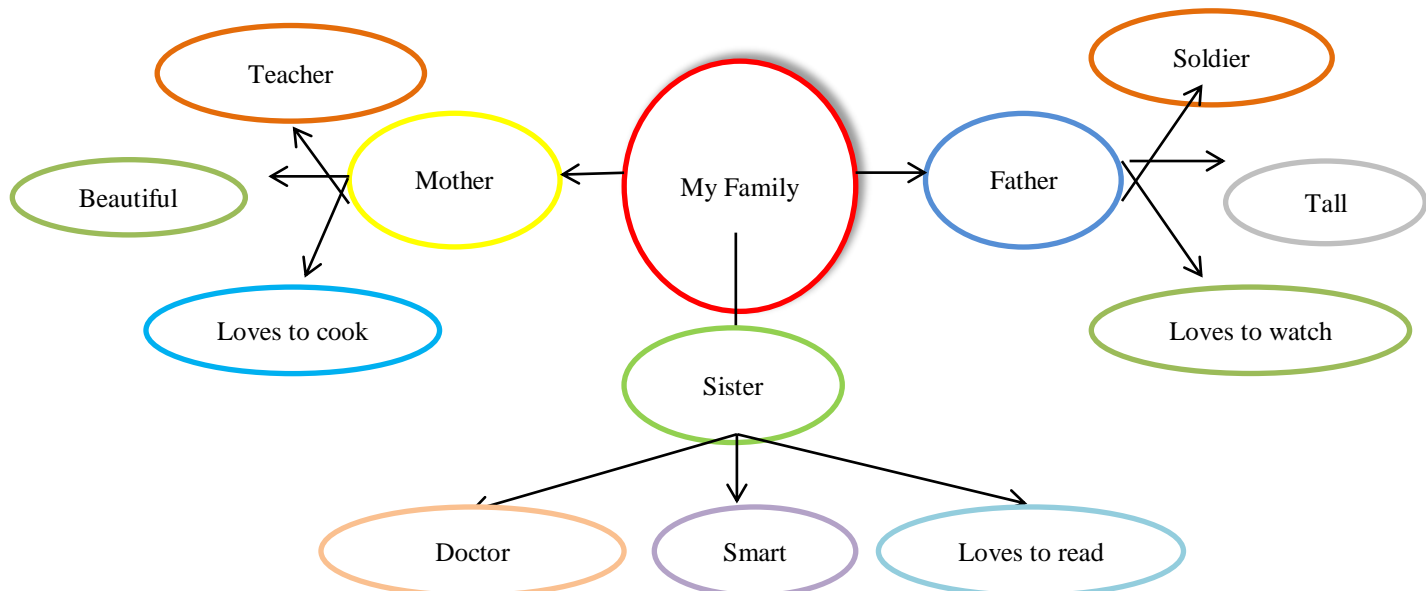
Figure 2 The Structure of Word Webbing with three levels

From figure 2.2 it can be explained that webbing shows the relationship among the words. From the keyword "family", the students can mention and write some word which is related to the keyword and make it into the web. The first level is word of mother with words that describe "mother" (teacher, beautiful, loves to cook), the second level is sister with the other words that describe the word "sister" (doctor, smart, loves to read), and the third level is word of father with words that describe "father" (soldier, tall, loves to watch).

In conclusion, word webbing is a technique that helps the students to develop their ideas and keep them loosely connected.

b. The Principle

Word webbing technique belongs to cooperative learning and it has several principles, which are as follows:[22] (1) collaborative skills, (2) group autonomy, (3) equal participation, (4) individual accountability, (5) positive nterdependence, (6) cooperation as a value

(1) Collaborative Skills.

Collaborative skills, such as reasoning, are what is needed for working with others. Students may not have these skills, the language used in using the skills, or a tendency to apply these skills. Most books and websites on proximity cooperative learning allow explicit collaborative skills one at a time.

(2) Group Autonomy.

This principle encourages students to see for themselves the resources rather than relying solely on teachers. When groups of students have difficulty, it is very helpful for the teacher to intervene in either a particular group or the whole class. Sometimes we want to resist this temptation, because as Roger Johnson wrote, "Teachers have to trust peer interactions to do things they think are responsible for themselves"

(3) Equal Participation.

A problem that often arises in groups is that one or two group members dominate the group and, for whatever reason, hinder the participation of others. Cooperative learning offers many ways to promote more equal participation among group members.

[22] George Jacobs. (2016). Cooperative Learning: Theory, Principles, And Techniques, *JF New Paradigm Education*. .p. 3-4.

(4) Individual Accountability.

When we try to encourage individual accountability in groups, we hope that everyone will try to learn and to share their knowledge and ideas with others.

(5) Positive Interdependence.

This principle is at the heart of CL. When positive interdependence exists among group members, they feel that what helps one group member helps another member and what hurts one group member hurts the other members. This "all for one, one for all" feeling is what makes group members want to help one another, to see that they share a common goal.

(6) Cooperation as a Value.

This principle means that rather than cooperation is only being a way of learning, namely how to learn, cooperation is also part of the content to be studied, namely what learning is. It flows naturally from the most important principle of cooperative learning, positive interdependence. Cooperation as value involves taking the feeling of "All for one, one for all" and expanding it beyond small class groups to cover the whole class, the whole school, and so on, bringing more people and other creatures into the circle of students who will cooperate.

c. The Design

In order for an approach to lead to a method, it is necessary to develop a design for a learning system. Design is the level of method analysis considering as: 1) The objectives of the method; 2) The content choice and organization: the

syllabus; 3) Types of learning and teaching activities; 4) Learner roles; 5) Teacher roles; 6) The role of instructional materials.[23]

The objective of this technique is to help the students in mastering vocabulary, they can know the meaning of words, be able to pronounce word correctly, be able to write and spell words, and be able to use words in a sentence. With those all can help students to be good at reading, writing, listening, and speaking.

The learning activity designed to focus on students' vocabulary mastery. The use of word webbing technique requires learners to work in a group learning. the use of task will show that every group has different infomation needed to complete the task. Activities type in this technique include question and answer, drills, responding to commands, improvisation, and brainstorming.

The role of learners in this technique are active learners and team members and collaborator, doing the brainstorming, working together with the group, demonstrating the words on the board and circulate the centre word.

The role of the teacher in this technique are as facilitator, explaining to students about word webbing technique, creating the group that one group consist of 4-5 students, brainstorming and asking the words related to the centre word in the board to the students, explaining what will students do in their group, fasilitating and guiding them as long as they need help, evaluating the learning process, monitor and feedback provider.

The role of instructional materials are allowing learners to progress at their own learning pace, allows for different learning styles, provides opportunities to

---

[23] Jack C. Richards and Theodore S. Rodgers. (1986). *Aproaches and Methods in Language Teaching*. London: Cambridge University Press. p.20.

learn and use independently, and provides opportunities for self-evaluation and progress in learning.[24]

d.   The Procedure

The purpose of teaching vocabulary is to help students learn foreign languages. With sufficient vocabulary, students can be good at reading, writing, listening, and speaking. Word webbing is a great technique for teaching vocabulary. In the learning process, the teacher must explain how to use the word weaving technique. Based on Stamper, there are several steps that the teacher must take in learning vocabulary using webbing, namely: (1) Explaining to students that one way to recognize a word is through word weaving, (2) One word enters the web center, and the word another related to it comes out of the middle, (3) Ask students: What words do you think are related to the word desert? (Answers could include cactus, rattlesnakes, tumbleweed, sand, dry, and hot), (4) Pair students, then distribute copies of the Word Web chart organizer to each pair, (5) Instruct partners to select content-word areas to write on spider in the middle of the web. Maybe a math word like geometry, a geography word like landscape, or a science word like framework. Then ask partners to work together to fill in the word web with as many related words as possible.[25]

In the learning process, the teacher should explain how to use word webbing technique. According to Buckby, they are: [26] (1) Display on the board how to make a web word center on a topic, shown with a short word or phrase.

---

[24] Jack C. Richards and Theodore S. Rodgers, Ibid., p.26.

[25]Judith Stamper. (2006). *Vocabulary Building Graphic Organizers & Mini Lessons*. New york: Scholastic Teaching Resources. p. 8.

[26]Andrew Wright, David Betteridge, and Michael Buckby. (2006). *Games for Language Learning3ed*. Cambridge University Press. p. 102.

The related word network can be either a general association or a personal association, (2) Brainstorming with students, listing about 20 topics on the board, (3) Asking each student to select three topics from the list and creating a web of words they associate each other, being careful not to identify the topics on their woven words. In other words, the middle circle must be empty, (4) Tell students to circulate, showing their woven word to at least three other learners, who should try to identify the topic of each word.

e. The Advantages and Disadvantages

Based on Zarei and Gilani's research on collaborative techniques including Jigsaw, Rotating Circles, Snowball, Think-pair-square and word webbing, they found that word webbing was the most effective technique for both vocabulary understanding and production. This technique shows how ideas are related to other ideas and how they are organized.[27] This strategy can be used to help students visualize relationships between ideas, activate students' background knowledge or previous knowledge of students, and to generate ideas or concepts and words for specific topics and then talk about how those ideas or words which are related.

Word webbing can improve student achievement, help build positive relationships between students, give students the experiences they need for healthy

---

[27]Abbas Ali Zarei and Maryam Sahami Gilani. (2013). L2 Vocabulary Learning Through Collaborative Technique. *International Journal of Language Learning and Applied Linguistics World. IJLLALW.* 4(1). p. 7.

social, psychological, cognitive development, and students are expected to be motivated and able to interact with other students..[28]

Every technique has advantages and there are also disadvantages. The disadvantage of this technique is that the students take time to draw circles or other shapes and lines to fill in the words. Students' attention will also be distracted by their enthusiasm for each word and this will affect the subject matter of learning..[29] The disadvantage of this technique is also word webbing is not appropriate for passive learners. It is also hard for students to use this technique when they have problem with a topic of the text, so they can not activate their prior knowledge.

B. Conceptual Framework

Based on the theoretical framework, word webbing technique is better in mastering vocabulary than without word webbing technique because word webbing can help the students to expand their ideas from the keyword given and keep the words connected to the keyword.

It also can maintain good communication between the students because this technique belongs to cooperative learning. The students need to work together to share their knowledge and ideas with others. By applying this technique, it is hoped that the teaching and learning process can be a students-centered and the teacher as a facilitator.

---

[28] Muhammad Mufti Haris. (2011). *The Effectiveness of using Team Word-Webbing to Increase Students' Reading Comprehension in News Item Text*. Thesis. State Institute for Islamic studies. p. 13.

[29] Zahra Tarkashvand. (2000). Male Learner's Vocabulary Achievement Through Concept Mapping and Mind Mapping: Differences and Similarities. *Academic Journal Education Research and Review*. 10(7). p. 790-798.

The students need to learn and practice the vocabulary in an interesting way. This technique makes vocabulary learning more enjoyable because they are allowed to choose the topics. Therefore, it is expected by using word webbing technique to generate a better result on students' vocabulary mastery.

| Word Webbing | → | Students' vocabulary mastery |
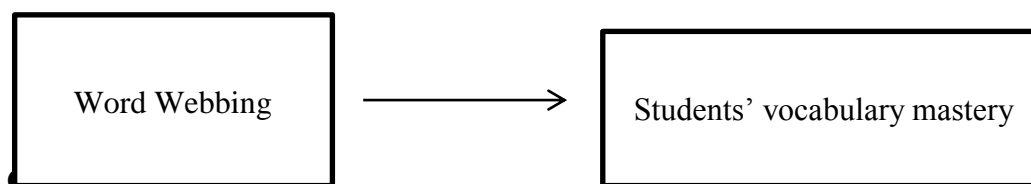
The first relevant research was previously conducted by Mulyana "The Influence of Word Webbing on Students' Vocabulary Achievement in Writing Expository Text". This study aims to determine whether there is a significant effect on student vocabulary learning achievement in writing expository text taught by word webbing and taught using conventional techniques at MAS YASPI Labuhan Deli Medan Labuhan in the 2015/2016 academic year. The population in this study were students of class XI MAS YASPI Labuhan Deli Medan Labuhan academic year 2015/2016 which consisted of two classes : 82 students. The research methodology in this research is experimental research. It is known that word webbing has a significant effect on students' vocabulary achievement in writing expository texts.

The second previous relevant study was conducted by Nasution "The Effect of Choral Repetition Technique towards The Students' Vocabulary Mastery at SMP IT Nurul Fadhilah Bandar Setia".[30] This study aims to determine the effectiveness of the chorus repetition technique on the students' vocabulary

---

[30] Atika Arfah Nasution. (2018). *The Effect of Choral Repetition Technique towards The Students' Vocabulary Mastery*. Thesis. State Islamic University of North Sumatera.

mastery which was observed and analyzed in the seventh grade students of SMP IT Nurul Fadhilah. The method used in this research is quantitative method with experimental research design. The population of this study was students of SMP IT Nurul Fadhilah. The use of choral repetition techniques in learning vocabulary has an effect in increasing students' vocabulary mastery.

Based on the related studies above, the researcher intends to conduct further research on students' vocabulary mastery. Specifically, the researcher chooses the word and vocabulary webbing technique to be analyzed. The related studies in this research may not have the same form and characteristics as this research. However, these studies can provide a lot of information and data to support this study. They can also guide the researcher in completing this study through several procedures and findings.

D. Research Hypothesis

Based on the explanation theoretical framework above, the hypothesis of this research is: The students' vocabulary mastery taught by word webbing technique is better than without word webbing technique.

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents information related to place and time of the research, population and sample of the research, research method, instrument of the research, and technique of data analysis.

A. The Place and Time of the Research

The research was conducted at SMP Swasta Galih Agung which is located at Jln. Berdikari, Desa Lau Bakeri, Kec. Kutalimbaru, Kab. Deli Serdang, Sumatera Utara. This study was conducted for ten meetings from 12 August to 12 September, 2020.

B. The Population and Sample of Research

Population is a group of individuals who have the same characteristic.[31] Population is the larger group which the generalization can be made. It is well defined as all members of any well-defined class of people, events, or objects.[32] In this study, the researcher conducted the research at SMP Swasta Galih Agung under academic year 2020/2021. The population was the students of seventh grade. There are ten classes of the seventh grade students with a total of 260 students. Each class has number of students that can be seen in the following table.

---

[31] John W. Creswell. (2012). *Educational Research*, Fourth Edition. United States of America: Pearson Education. p.142.

[32] Donald Ary, Lucy Cheser Jacobs,Chris Sorensen and Asghar Razavieh. (2010). *Introduction to Research in Education 8th edition*. USA : Wadsworth Cengage Learning. p. 148.

Table 3.1 Population of the Research

No.	Class	Number of Students
1.	VII-A	29
2.	VII-B	27
3.	VII-C	21
4.	VII-D	27
5.	VII-E	24
6.	VII-F	28
7.	VII-G	27
8.	VII-H	23
9.	VII-I	29
10.	VII-J	25
Total		260

The sample is a subgroup of the target population who are representative of the entire population who the researcher plans in research.[33] The researcher used cluster random sampling. The researcher divided the population into two classes by using cluster random sampling, namely:

1. Experimental class; a group of students who will be taught vocabulary by using word webbing technique.

2. Control class; a group of students who will be taught vocabulary without using word webbing technique.

Donald Ary stated it is very difficult, if not impossible, to list all the members of a target population and select the sample from among them.[34] This why the researcher chose cluster random sampling because the unit chosen is not an individual but, rather, a group of individuals who are naturally together. The

---

[33] John W. Creswell, Ibid., p. 295.
[34] Donald Ary, Ibid., p. 154.

researcher chose two classes randomly, VII-C as a experiment class and VII-D control class.

Table 3.2 The Sample of the Study

Class	Population	Sample
Experiment Class	VII-C	21
Control Class	VII-D	27
Total		48

C. The Research Method

The method used in this research was an experiment with post test only design. Posttest-only design is said to be one of the most powerful from all experimental designs. There is no pre-test. After giving the treatment to both experimental class and control class, the post test is conducted.

The experimental research is a way to determine the causal relationship between two factors that the researcher deliberately makes by ignoring other factors that influence it. There are two groups in this study; experimental and control groups. The control group is the group exposed to ordinary conditions while the experimental group is the group exposed to special conditions. This is described in the following table:

Table 3.3 Post Test Only Design

Name of Class	Independent Variable	Post Test
VII-I	✓	✓
VII-II	X	✓

There were some procedures that are used in collecting data for this research.

1. Try Out

Try out was considered in this research to determine the test whether valid and reliable or not. It was given to a class which is not included both control and experiment group

2. Treatment

The treatment will be carried out for the experimental group and the control group. In the experimental class, researcher used word webbing techniques in the teaching and learning process. Whereas in the control class the researcher did not use word webbing in the teaching-learning process.

3. Post Test

After nine meetings conducting treatment, a post-test would be given to both experiment and control class to know the achievement of students' vocabulary mastery after the treatment.

D. Control of Treatment

Internal validity refers to durability, precision, or accuracy of the study's result as a result of treatment. Factors that confuse internal validity such as: (1) event s that occured and took place during the research and were associated with treatment, (2) maturity, (3) instrumentation, (3) testing, (4) statistical regression, (6) mortality experimental, (7) selection, (8) interaction between selection and maturity.

External validity refers to the accuracy to whom research results can be generalized or applied to both groups and wards outside the research setting.

External validity ask the question of generalizabity such as populations, treatment variable, settings, and measurement variable.

E. The Instrument of the Research

Instrument can be defined as a tool, the instrument of this research was a vocabulary test. To construct the vocabulary test, the researcher followed this procedure:

1. Conceptual Definition

Vocabulary mastery is a competence to understand the stock of words and their meanings of a particular language.

2. Operational Definition

Vocabulary mastery is students' complete knowledge about the total number of particular language concerning with the words and also the meaning of those words. It deals with students' understanding about adjective, noun, and preposition based on their lesson plan.

3. Specification

The instrument is a tool of the method used to obtain data in research. The researcher will use one of the instruments to conduct research, namely the vocabulary test. The researcher used multiple choices to test students' vocabulary mastery. The test that will be given to students consists of 50 test items, all of which are multiple choice questions based on vocabulary material for grade VII junior high school students.

Table 3.3 Specification of Number Test

No.	Indicator	Sub Indicator	Number Test	Total
1.	Noun	White Board, pencil case.	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15,16,17	17
2.	Adjective	Thin, thick.	18,19,20,21,22,23,24,25,26,27,28, 29,30,31,32,33,34	17
3.	Preposition	In, On	35,36,37,38,39,40,41,42,43,44,45, 46,47,48,49,50	16
Total				50

4. Caliberation

In this study, the researcher used posttest techniques to obtain students' vocabulary mastery. Posttest is used to measure learning achievement between the experimental class and the control class after treatment. Before the posttest is given to the control and experimental class students, the researcher will analyze the validity and reliability of the test. Reliability and validity are two important elements used to measure test instruments in research

a) Validity

The validity of an instrument is how far it properly measures an object to be measured. The higher the validity of an instrument, the better it can be used. According to Heale and Twycross, validity is "the extent to which a concept is accurately measured in a quantitative study."[35] It is goo to remember that validity cannot be released from the group to which the application is due because its effectiveness is limited to only that group or another group that has similar

---

[35] Roberta Heale and Alison Twycross. (2015). Validity and Reliability in Quantitative Studies, *Evid Based Nurs,* 18. pp. 66 – 67.

conditions. Therefore, a valid instrument of one group may not be a valid to other groups.

There are three types of validity: content validity, construct validity, and criterion validity. Content validity is a type of validity that focuses on whether the instrument includes all variable content. In other words, content validity focuses on what students have learned in class. All material that students have studied will be given for later tests. A test is said to have content validity if its content represents the language ability being tested. Meanwhile, construct validity refers to whether a researcher can conclude a test score related to the concept being studied. And criterion validity is another instrument that measures the same variables. In this study, researchers emphasized the validity of the constructs to determine the validity of the posttest research instrument. Validity can be calculated using the Pearson product moment formula as shown in the following formula:[36]

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\}\{N \sum X^2 - (\sum Y)^2\}}}$$

Where:

r_{xy} = validity coefficient of the test

$\sum x$ = sum of score of each test number

$\sum y$ = sum of total score

N = number of students

$\sum x2$ = quadrate sum of score of each test number

$\sum y2$ = quadrate sum of total score

---

[36] Indra Jaya. (2019). *Penerapan Statistik untuk Penelitian Pendidikan*. Jakarta: Prenamedia Group. p. 125.

The rule of validity:

If $r_{count} > r_{table}$, the question is valid

If $r_{count} < r_{table}$, the question is invalid

By comparing r_{count} for 50 items to r_{table} for N (the total of students) =23 and $\alpha = 0,05 = 0,443$. The result was 20 items had lower score or not significantly correlated. The items that could not be used as research instrument were items number 3, 5, 8, 9, 10, 12, 17, 18, 20, 23, 27, 32, 34, 35, 36, 37, 40, 41, 48, 49. The 30 questions were valid, or significantly correlated and be able to use as research instrument. They were stated as valid items, because $r_{count} > r_{table}$ (0,443). So there were only 30 multiple choices got more than 0,4438 that could be used in post test (see appendix XI).

b) Reliability

Reliability relates to the consistency of an instrument. Creswell said that reliability is the stability and consistency of students' scores when administered the instrument in many times at different times.[37]Validity is the consistency or stability of the scores of the smae individual and given at different times. Realiability is important but not sufficient to ensure the validity of an instrument. The instrument is said to be reliabel when it is tested to the same subject over and over and the outcome remains the same or relative. So to obtain the reliability of the test, the researcher used Khuder Richardson (KR 21) formula.

The formula as follows: [38]

$$r_{11} = \frac{K}{K-1}\left(1 - \frac{M(K-M)}{K.St^2}\right)$$

---

[37] John W. Creswell, Ibid., p. 124.

[38] Sugiyono. (2017). *Statistika untuk Penelitian*. Bandung: Alfabeta. p. 361.

Where :

K = The number of test items

M = Mean of the score

S = Standard deviation of the score

Based on Pearson's Product Moment Formula, the coefficient of r can be interpret by using these criteria as follows :

0,00 – 0,20 : Negligible

0,21 – 0,40 : Low

0,41 – 0,60 : Moderate

0,61 – 0,80 :Substantial

0,81 – 1,00 : High to very high

Reliability testing used was Khuder Richardson formula (KR-21). For calculating, the researcher got the result of the reliability is 0,928357 (see appendix XII). It can be concluded that the reliability of the test is high to very high.

F. The Technique of Data Analysis

The researcher used the data from students' tests to find out the result of students' vocabulary knowledge by implementing word webbing technique which was applied in the experimental class, then without word webbing technique in the control class. After all students' scores are obtained, next the researcher conducted prerequisite data analysis: normality and homogeneity.

After analyzing the normality test and homogeneity test, the researcher used the T-test to find out the differences between students' scores that were taken from post-test in experimental class and control class.

1. Normality Testing

Normality test is done to know whether the data that got from the sample have a normal distribution or not. In this research, the normality test would be tested by using Lilifors test. After getting L_o, it is compared to L_t α =0,05. The characteristic of Lilifors test is:

If $L_o < L_t$ = data is normal

If $L_o > L_t$ = data is not normal

2. Homogeneity Testing

Homogenity test is necessary to prove basic data is homogeneous. After getting the F_o, it will be compared to F_t −0,05. Homogeneity test is tested by using Fisher test. It aims to know whether the sample used in the research is homogenous or not. The formula is as follows:

$$F = \frac{Highest\ Variant}{Lowest\ Variant}$$

If $F_o < F_t$ = sample is homogenous

If $F_o > F_t$ = sample is heterogeneous

3. Hypothesis Testing

To find out whether the students' vocabulary mastery taught by word webbing technique is better than without word webbing technique, the result of the test is calculated by using t-test formula. The data will be analyzed by using "t-test for independent sample.

The formula is as follow :

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{(N_1-1)(S_1)+(N_2-1)(S_2)}{N_1+N_2-2}\right)\left(\frac{1}{N_1}+\frac{1}{N_2}\right)}}$$

Where:

M_1 : mean of experimental group

M_2 : mean of control group

S_1 : the deviation square of experimental group

S_2 : the deviation square of control group

N_1 : the number samples of experimental group

N_2 : the total number samples of control group

G. Statistical Hypothesis

Statistically, the hypotheses are expressed as a follow:

H_o : μA=μB

H_a : μA>μB

In which:

H_o = Null Hypothesis (students' vocabulary mastery taught by word webbing

technique is not better than without word webbing technique).

H_a = Alternative Hypothesis (students' vocabulary mastery taught by word

webbing technique is better than without word webbing technique).

μA = Students" score in test, who are taught by word webbing technique.

μB = Students' score in test, who are taught without word webbing technique.

The statistical hypotheses above means:

➢ If t-test (t_o) < t-table (t_t) in significant degree of 0.05 (5%), it means that H_a

is rejected and H_o is accepted.

➤ If t-test (t_o) > t-table (t_t)in significant degree of 0.05 (5%), it means that H_a is accepted and H_o is rejected.

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This chapter presents the findings of the study in descriptive statistics, testing validity of the test, testing reliability of the test, the t-test result including the normality test, homogenity test, and testing hypothesis.

A. Research Findings

1. Description of the Data

The data were taken from students' score in experimental group and control group. The students were asked to answer multiple-choices about vocabulary. This study was conducted on 12 August until 12 September 2020. The researcher gave the treatment to students in the experimental group (VII-C) by using Word-Webbing technique, while control group (VII-D) without using Word-Webbing technique. After the treatment, the researcher gave the post test to both groups to measure the students' score in meastering vocabulary. The treatments were conducted in nine meetings..

a. The Students' Score of the Experimental Class

After analyzing the data through statistic description, the result showed that the students were taught by word webbing technique got the score range was 56 to 93, the mean of posttest was 76,809, the standard deviation of posttest was 11,702 , the lowest score of posttest was 56 and highest score was 93 (see appendix IX).

Table 4.1 The Frequency Distribution of Students Score in

Experimental Class

No.	Interval Class	Absolute Frequency	Relative Frequency
1	56 – 62	3	14
2	63 – 69	2	10
3	70 – 76	4	19
4	77 – 83	6	29
5	84 – 90	5	23
6	91 – 97	1	5
Total		21	100

The score frequency distribution histogram of students' vocabulary mastery were taught by using Word Webbing technique can be showed in the following figure:

Figure 3 The Histogram of the Experimental Class
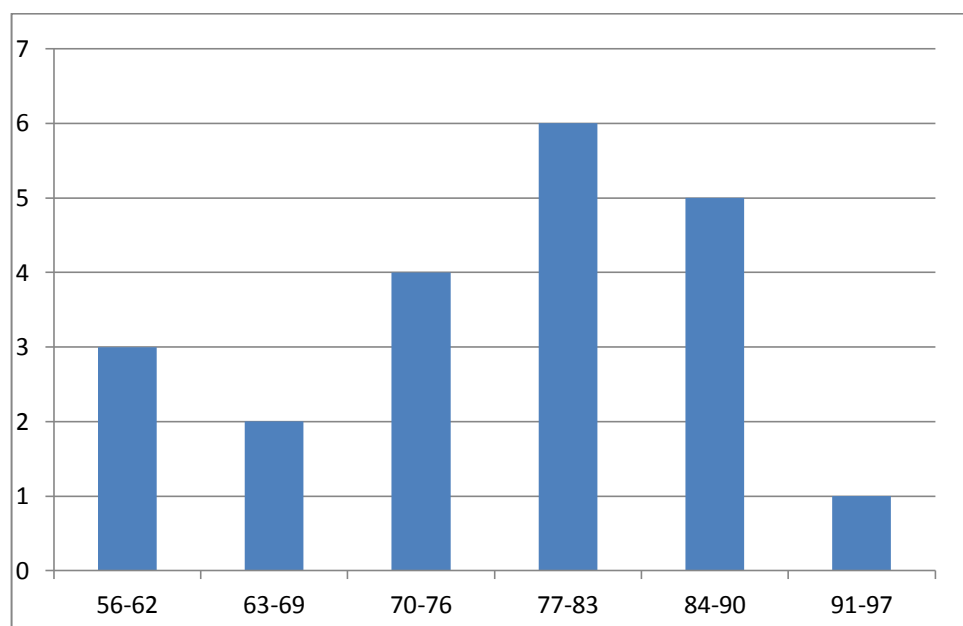
b. The Students' Score of the Control Class

After analyzing the data through statistic description, the result showed that the students were taught by word webbing technique got the score range was 53 to 93, the mean of posttest was 69,444 the standard deviation of posttest was 9,208 , the lowest score of posttest was 53 and highest score was 90 (see appendix X).

Table 4.2 The Frequency Distribution of Students Score in

Control Class

No.	Interval Class	Absolute Frequency	Relative Frequency
1	53 – 57	4	15
2	58 – 62	0	0
3	63 - 67	9	33
4	68 - 72	0	0
5	73 - 77	10	37
6	78 - 82	2	7
7	83 - 87	1	4
8	88 – 92	1	4
	Total	27	100

The score frequency distribution histogram of students' vocabulary mastery were taught without using Word Webbing technique can be showed in the following figure:

Figure 4 The Histogram of the Control Class
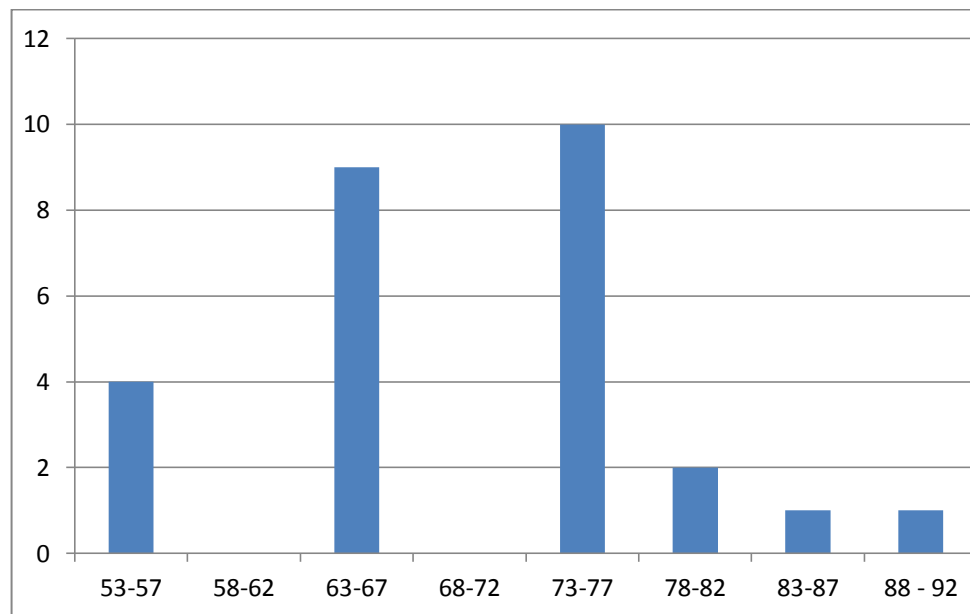
After giving the posttest to experiment group was taught by word webbing technique and control class was taught without using word webbing technique, so it is obtained measurement data as follow:

Table 4.3 Research Result Data

Statistic Source	Group of Learning Model	
	Experimental Class	**Control Class**
N	21	27
$\bar{x}$	76,809	69,444
S	11,702	9,208

2. Analysis Requirement Testing

a. Normality Testing

Table 4.4 Normality Testing

No.	Data	N	A	L_o	L_t	Conclusion
1	Experiment Class	21	0,05	0.119	0.173	Normal
2	Control Class	27	0,05	-0,0129	0,161	Normal

In post-test of experimental class, it can be seen that the Liliefors Observation or L_o (0,119) < L_t (0,173). It means that the data in experimental class had normal distribution. In the post-test of control class, it can be seen that the Liliefors Observation or L_o (-0,0129) < L_t (0,161). It also means that data in control class had normal distribution. From the table above, it could be seen that the data distribution of experimental class and control class were normal. Based on the table above, it could be concluded that all of data distribution was normal, because L_o < L_t (See Appendix XIII and XIV).

b. Homogeneity Testing

The homogeneity of the sample could be decided based on this following hypothesis:

If F_o < F_t = data is homogenous

If F_o > F_t = data is not homogenous (heterohenous)

Table 4.5 Homogenous Testing

Data	F_o	F_t	Conclusion
Experimental Class	1.615	2.04	Homogenous
Control Class			

From the data above, the coefficient of $F_o = 1.615$ was compared with F_t, where F_t was determined at real level (α) = 0.05 and the numerator df = N1 − 1 = 21 − 1 = 20 and the denominator dk = N2 − 1 = 27 − 1 = 26. By using the list of critical value at F distribution was found $F_{0.05(20.26)} = 2.04$ and found that $F_o < F_t$ or (1.615 < 2.04) It could be concluded that the variance from the data was homogenous (see appendix XV).

3. Hypothesis Testing

The result of hypothesis of this study could be seen from the table below

Table 4.6 T-Test Result of Post Test

Data	T_o	T_t	Conclusion
Experimental Class	10.491	2.000	The students' vocabulary mastery taught by word webbing technique is better that without word webbing technique
Control Class			

From the table above, it could be seen that $t_{obs} = 10,491$ and $t_{table} = 2,000$, it means that $t_{obs} > t_{table}$. The hypothesis is accepted on the level of significant 0,05.. After the scores were calculated, it was found that in this study the t_{obs} is higher that t_{table}. It could be seen as follow :

$t_{obs} > t_{table}$ ($\alpha = 0,05$) with df 46

10,491> 2,000

This result showed that the alternative hypothesis (H_a) was accepted and null hypothesis (H_o) was rejected. The meaning of this result is that the students' vocabulary mastery taught by word webbing technique is better that without word webbing technique (see appendix XVI).

B. Discussion

Based on what found in findings, it shows that students' vocabulary mastery taught by word webbing technique was better than without word webbing technique.it could be proven from the students' score in experimental class which is higher than the students' score in control class. It shows that there is significant difference between the students' score taught by word webbing and without word webbing.

This result of study was linked to what Nasution found that word webbing technique has the significance effect on the students" vocabulary achievement at the 8 grades SMP Negeri 27 Medan. It was also found by Utami that there was significant effect of word mapping on the students" vocabulary achievement at seventh grade SMP Negeri 1 Plupuh. From those two related studies, this research proved that Word Webbing technique can help students of seventh grade in mastering vocabularies and teachers to achieve an effective English teaching

The researcher gave the treatment in nine meeting to both experimental class and control class. The topics of teaching were "Noun, colour, adjective, preposition, and pronoun" taken from the students" curriculum at the first semester. In experimental class, the students were taught by word webbing technique in teaching English while in controlled class the students were not taught by word webbing technique. Moreover, the researcher found some differences from two classes such as:

Firstly, the researcher found that word webbing technique helps students easily link the connected words to the word given in central board. It shows how ideas are connected to other ideas and how they are organized. As what Zarei and

Gilani said to visualize the relation among the ideas, the teacher can use this technique. Furthermore, the students can activate their background knowledge or prior knowledge. The students can use their background knowledge freely which has connection to the topic written.

Secondly, the researcher found that the students did not face any difficulties in using this word webbing technique. This technique is simple and can help the student in order to improve their vocabulary in learning English. It can be strated from the teacher writing keywords and then the students must mention ideas that come from that keyword. It can be concluded that the students are active in participating learning process.

Finally, the students were taught by using word webbing technique got higher achievement than the students" that are taught without using word webbing technique.

CHAPTER V

CONCLUSION, IMPLICATION, SUGESSTION

i.   Conclusion

After the data analyzed, the result shows that the students vocabulary mastery who are taught by word webbing technique is better than without word webbing technique. This means that word webbing technique is effective in teaching vocabulary.

ii.   Implication

Implication can be drawn from the finding. The research found that students' vocabulary mastery taught by word webbing technique was better than without word webbing technique. furthermore, this research implies that it needs to apply word webbing technique in teaching English especially in vocabulary mastery.

Students are active to share their opinion, they can work with partner, they can develop their creativity because word webbing helps them in visualizing their understanding. This had been proven by the result of post test from the students' score of experimental class.

In conclusion, the use of word webbing techique during the research is better than without word webbing technique. Moreover, the use of word webbing technique must be applied continually in English teaching learning. the reason is beacuse this technique can help the students to master vocabularies so their vocabulary mastery can be improved.

iii.   Suggestion

From the result of this study, the researcher suggests some suggestion. firstly, for the English teacher it is very recommended to use word webbing technique in the classroom to improve students' vocabulary mastery. Secondly, for the next researchers who wants to conduct a quantitative research about vocabulary mastery should apply this technique in different places and different level of learners to know that this technique has effectiveness.

REFERENCES

Aisyah, D.N. (2017). The vocabulary teaching and vocabulary learning : Perception, strategies, and influences on the student's vocabulary mastery. *Jurnal Bahasa Lingua Scientia.* 9 (2).

Alqahtani, M. (2015). The Importance Of Vocabulary In Language Learning And How To Be Taugh. *International Journal Of Teaching And Education.*

Ananda, R. and Rafida, T. (2017). *Pengantar Evaluasi Program Pendidikan*, Medan: Perdana Publishing.

Arikunto, S. (2006). *Prosedur Penelitian:Suatu Pendekatan Praktek*. Jakarta: PT.Rineka Cipta.

Ary,D., Jacobs, L.C., Sorensen, C., and Razavieh, A. (2010). *Introduction to research in education8th edition.* USA : Wadsworth Cengage Learning.

Beesupogu, B. R. (2015). Enhancing the Regional Medium Students' Vocabulary Using Self-Directive Learning Techniques, *American Research Journal of English and Literature*.

Cahyono, B.Y., and Widiati, U. (2008).The teaching of EFL vocabulary in Indonesian context: The state of the art. *TEFLIN Journal*.19 (1).

Creswell, J. W. (2012). *Educational Research*, *Fourth Edition*. United States of America: Pearson Education.

Crystal, D. (1995). *The Cambridge Encyclopedia of the English Language*. Cambridge: Cambridge University Press.

Gaims, R and Readman, S. (1986). *Working with Words: A Guide to Teaching and Learning Vocabulary*. Cambridge: Cambridge University.

Guskey, T.R. and Anderman, E. M. (2013). *In Search of a Useful Definition of Mastery. Educational, School, and Counseling Psychology*. retrieved from. https://uknowledge.uky.edu/edp_facpub/10

Haris, M. M. (2011). *The Effectiveness of using Team Word-Webbing to Increase Students' Reading Comprehension in News Item Text.* Thesis. State Institute for Islamic studies.

Heale, R. and Twycross, A. (2015). Validity and Reliability in Quantitative Studies, *Evid Based Nurs,* 18, 66 – 67.

Hockey, D. B. (2001). *Teaching by Principle: An Interactive Approach to Language Pedagogy 2ed.* San Francisco: Longman.

Jaya, I. *Penerapan Statistik untuk Penelitian Pendidikan*. Jakarta: Prenamedia Group.

Kartika, Y. (2015). *The Effect of Picture Annotation with Memorization on Students' Vocabulary Mastery*. Thesis. State University of Medan.

Li, Y. and Marko. (2018). *Vocabulary Teaching in Junior Middle School*.

McCarten, J. (2007). *Teaching Vocabulary: Lesson from Corpus Lesson for the classroom.* New York: Cambridge University Press.

Mulyana. (2016). *The Effect of Word Webbing on The Students' Vocabulary Achievement In Writing Expository Text*. Thesis. State Islamic University of North Sumatera.

Nasution, A. A. (2018). *The Effect of Choral Repetition Technique towards The Students' Vocabulary Mastery*. Thesis. State Islamic University of North Sumatera.

Nasution, A. D. N. (2015). *The Effect of Applying Word Webbing Technique on Students' Vocabulary AchievementI.* Thesis. State University of Medan.

Priyono.(2004).*Logical problems of teaching English as a foreign Language in Indonesia*. Malang: State University of Malang Press.

Richard. (2005). *Methodology in Language Teaching: An Anthology of Current Practice*, Newyork: Cambridge University Press.

Richards, J. C. and Rodgers, T. S. (1986). *Aproaches and Methods in Language Teaching.* London: Cambridge University Press.

Santoso, D. (2013). The Effect of Instructional Approaches on English Vocabulary Mastery of Economic Vocat onal School Students. Singapore:*Asia Pacific Journal of Linguistics*.

Stamper, J. (2006). *Vocabulary Building Graphic Organizers & Mini Lessons*. New york: scholastic teaching resources.

Sugiono. (2017). *Statistika Untuk Penelitian*. Bandung: Alfabeta.

Tarkashvand, Z. (2000). Male Learner's Vocabulary Achievement Through Concept Mapping and Mind Mapping: Differences and Similarities, *Academic Journal Education Research and Review,* 10, 790-798.

Thornbury, S. (2002). *How to Teach Vocabulary*. Longman: Pearson Education Limited.

Trihandayani, R. (2016). The Effectiveness Of Using Computer Game "Fast Hands" To Improve Students' Vocabulary Mastery For Junior High School, *Journal of English Language Teaching*, ISSN 2252-6706

Utami, D. W. (2017). *The Effectiveness of Using Word Mapping Strategy In Teaching Vocabulary*. Thesis. Islamic Institute of Surakarta.

Wright, A., Betteridge, D., and Buckby, M. (2006). *Games for Language Learning3ed*. Cambridge University Press.

Zarei, A. A. and Gilani, M. S. L2 Vocabulary Learning Through Collaborative Technique. *International Journal of Language Learning and Applied Linguistics World. IJLLALW.*4(7).

Zawil, R. (2006).Using Make A Match technique to teach vocabulary. *English Education Journal (EEJ).*7(3).

https://quran.com/, accessed on 17th January 2020.

Lesson Plan (Experimental Class)

School   : SMP Swasta Galih Agung

Subject   : English

Class/Semester : VII/I

Topic   : Things at school

Time Allocation : 3 meetings

A. Learning Objectives

- Students are able to memorize English vocabulary and its meaning

- Students are able to create their own sentence

B. Learning Materials

- First meeting

Whiteboard	Wardrobe
Refrigerator	Bag
Pen	Pillow
Sofa	Pencil case
Book	Magazine

- Second meeting

Uniform	Bed
Iron	Chair

Ruler	Blender
Mixer	Chalk
Eraser	Pan

- Third meeting

Bath	Globe
Calculator	Washing machine
Correction pen	TV
DVD Player	Scissors
Pencil sharpener	Play Station

C. Method

The method is word webbing technique

D. Learning Procedure

1. Opening Activities

   ➢ Teacher greets the students and starts learning process by saying basmalah.

   ➢ Teacher checks the attendance list of students.

   ➢ Teacher explains the learning objectives.

2. Main Activities

   ➢ Teacher introduces word webbing strategy and how to use it.

   ➢ Students are given 10 random vocabularies.

➢ Teacher gives keyword "classroom objects".

➢ Students are instructed to create their own word webbing based on the keyword.

➢ Students are instructed to create new sentences from vocabularies in word webbing.

➢ Students present their result in front of the classroom

3. Closing activities

➢ Teacher concludes the material.

E. Assessment and Learning Outcomes

The assessment are in the form of written and assignment

Appendix II

RPP (Control Class)

School : SMP Swasta Galih Agung

Subject : English

Class/Semester : VII/I

Topic : Things at school

Time Allocation : 2 meetings

E. Learning Objectives

- Students are able to memorize English vocabulary and its meaning

- Students are able to create their own sentence

F. Learning Materials

- First meeting

Whiteboard	Wardrobe
Refrigerator	Bag
Pen	Pillow
Sofa	Pencil case
Book	Magazine

- Second meeting

Uniform	Bed
Iron	Chair

Ruler	Blender
Mixer	Chalk
Eraser	Pan

- Third meeting

Bath	Globe
Calculator	Washing machine
Correction pen	TV
DVD Player	Scissors
Pencil sharpener	Play Station

G. Method

The method is conventional strategy

H. Learning Procedure

1. Opening Activities

   ➢ Teacher greets the students and starts learning process by saying basmalah.

   ➢ Teacher checks the attendance list of students.

   ➢ Teacher explains the learning objectives.

4. Main Activities

   ➢ Teacher gives list of vocabularies

> ➤ Students are instructed to find the meaning of the vocabularies on the dictionary

> ➤ Teacher asks the students to write the meaning on their notebook

> ➤ Students are instructed to memorize the vocabularies

> ➤ Teacher tests the students' memory

5. Closing activities

> ➤ Teacher concludes the material.

E. Assessment and Learning Outcomes

The assessment are in the form of oral test and assignment

Instrument of Validity

Answer These Questions!

1. The teacher writes the lesson on the _____.

   a. Chair   b. Table

   c. whiteboard d. Cupboard

2. Andi reads _____ in the classroom.

   a. Newspaper b. Book

   c. Novel   d. Magazine

3. Nana writes with a _____ on her notebook.

   a. Ruler   b. Ink

   c. Crayon   d. Pen

4. The students put the _____ on the chair.

   a. Bag   b. Table

   c. whiteboard d. Cupboard

5. I put my pencil, pen, and my eraser in the _____ .

   a. Bin   b. Bag

   c. Drawers   d. Pencil case

6. You have to wear _____ to go to school

   a. Hat   b. Sandals

   c. Dress   d. Uniform

7. The students sit on the_____

   a. Table   b. Cupboard

   c. Chair   d.Blackboard

8. We use a _____ to draw a straight line

   a. Ruler   b. Pen

   c. Eraser   d. Pencil

9. _____ is a thing we need to write on the blackboard

   a. Marker   b. Chalk

   c. Ink   d. Crayon

10. This tool can erase marker, chalk, and pencil

    a. Eraser   b. Pencil sharpener

    c. Correction pen   d. scissors

11. a three-dimensional model of the world commonly found in the class is_____

    a. Map   b. Picture

    c. Globe   d. Magazine

12. You bring this small machine to help you do calculations.

    a. Clock   b. Calculator

    c. Compass   d. Computer

13. Your pencil is getting a bit dull, you need _____

    a. Pencil sharpener   b. Scissors

    c. Stapler   d. Compass

14. This stationery item is used to cut paper.

    a. Scissors   b. Clock

    c. Ruler   d. Crayon

15. In the following include classroom objects, except_____.

    a. Book   b. Bag

    b. Whiteboard   d. Wardrobe

16. A person who teach in the class is _____

    a. Dentist   b. Doctor

    c. Teacher   d. School principal

17. Board, book, table, marker, and pen are things in the _____

    a. House   b. Bedroom

    c. Station   d. Classroom

18. The pen is short and the ruler is ____ .

    a. Small   b. Long

    c. Large   d. Thin

19. The book is thin and the dictionary is _____ .

    a. Thick   b. High

    c. Low   d. Small

20. The class is _____. I want to clean it.

    a. Good   b. Bad

    c. Clean   d. Dirty

21. This subject is _____ for me. I got A+ in math.

    a. Difficult   b. High

    b. Low   d. Easy

22. English is _____. I got C+.

    a. Difficult   b. High

    b. Low   d. Easy

23. Instant noodle is ____ for your health.

    a.Good   b. Bad

    c. Clean   d. Dirty

24. Nissa sabyan has a beautiful face. The synonym of beautiful is _____

    a. Ugly   b. Hot

    c. Pretty   d. Cold

25. Elsa is pretty girl. The antonym of pretty is_____

    a. Ugly   b. Hot

    c. Bad   d. Cold

26. Ucok baba is a _____ guy.

    a. Short   b. Tall

    c. High   d. Low

27. My hostel is wide and my room is _____ .

    a. Hot   b. Cold

    c. Narrow   d. Long

28. Rara is a _____ student. She always obey the rules.

    a. Easy   b. good

    c. Bad   d. hard

29. Andi got 90 scores and Jaka got 70 scores in math.

    Andi's scores is high and Jaka's score is _____

    a. Long   b. Short

    c. Small   d. Low

30. It is rainy. The weather is so _____

    a. Warm   c. Hot

    c. Cold   d. Fierce

31. The football yard is _____

    a. Wide   b. Short

    c. Narrow   d. Long

32. It is very _____ in Antarctica.

    a. Warm   c. Hot

    c. Cold   d. Fierce

33. Rapunzel's hair is straight and _____.

    a. Curly   b. Short

    c. Long   d. Slim

34. Hulk has a _____ body

    a. Long   b. Short

    c. Small   d. Big

35. The white board is usually _____ the classroom.

    a. behind   b. Under

    c. between   d. In front of

36. Karin and I sit together, so I sit _____ Karin.

    a. in front of   b. Behind

    c. beside   d. Between

37. My cupboard is _____ my room.

    a. in   b. On

    c. at   d. Under

38. The clock is _____ the wall.

    a. in   b. On

    c. at   d. Under

39. Zahra - Rahma - Sofia

Rahma is _____ Zahra and Sofia.

a. in front of   b. Beside

c. between   d. Behind

40. The school is in front of my house, so my house is _____ the school.

a. between   c. In front of

c. beside   d. Behind

41. My pen falls _____ the table

a. on   b. In

c. between   d. Under

42. The teacher sits _____ the classroom.

a. behind   b. Beside

c. under   d. In front of

43. The book is ____ the table.

a. on   b. In

c. between   d. Beside

44. I bring my bag ____ my back.

a. in front of   b. Under

c. behind   d. Between

45. Can I sit _____ you at the movie theatre?

a. on   b. In

c. between   d. Beside

46. My pencil is _____ the books and the notebooks

    a. between   b. In

    c. on   d. Behind

47. The chair is_____ the classroom

    a. in   b. On

    c. beside   d. Behind

48. Medan is _____ Indonesia

    a. between   b. In

    c. on   d. Behind

49. The students are waiting _____ the door

    a. in front of   b. Under

    c. behind   d. Between

50. The library is _____ the canteen and the office

    a. between   b. In

    c. on   d. Behind

Appendix IV

Key Answer

1C	2B	3D	4A	5D	6D	7C	8A	9B	10A

11C   12B   13A   14A   15D   16C   17D   18B   19A   20D

21D   22A   23B   24C   25A   26A   27C   28B   29D   30C

31A   32C   33C   34D   35D   36C   37A   38B   39C   40D

41D   42D   43A   44C   45D   46A   47A   48B   49A   50A

Appendix V

Instrument of Post Test

Answer These Questions!

1. The teacher writes the lesson on the _____.

    a. Chair   b. Table

    c. whiteboard   d. Cupboard

2. Andi reads _____ in the classroom.

    a. Newspaper   b. Book

    c. Novel   d. Magazine

3. The students put the _____ on the chair.

    a. Bag   b. Table

    c. whiteboard   d. Cupboard

4. You have to wear _____ to go to school

    a. Hat   b. Sandals

    c. Dress   d. Uniform

5. The students sit on the_____

    a. Table   b. Cupboard

    c. Chair   d.Blackboard

6. A three-dimensional model of the world commonly found in the class is_____

    a. Map   b. Picture

    c. Globe   d. Magazine

7. Your pencil is getting a bit dull, you need _____

    a. Pencil sharpener   b. Scissors

    c. Stapler   d. Compass

8. This stationery item is used to cut paper.

   a. Scissors   b. Clock

   c. Ruler   d. Crayon

9. In the following include classroom objects, except_____.

   a. Book   b. Bag

   b. Whiteboard   d. Wardrobe

10. A person who teach in the class is _____

    a. Dentist   b. Doctor

    c. Teacher   d. School principal

11. The book is thin and the dictionary is _____ .

    a. Thick   b. High

    c. Low   d. Small

12. This subject is _____ for me. I got A+ in math.

    a. Difficult   b. High

    b. Low   d. Easy

13. English is _____. I got C+.

    a. Difficult   b. High

    b. Low   d. Easy

14. Nissa sabyan has a beautiful face. The synonym of beautiful is _____

    a. Ugly   b. Hot

    c. Pretty   d. Cold

15. Elsa is pretty girl. The antonym of pretty is_____

    a. Ugly   b. Hot

    c. Bad   d. Cold

16. Ucok baba is a _____ guy.

    a. Short   b. Tall

    c. High   d. Low

17. Rara is a _____ student. She always obey the rules.

    a. Easy   b. good

    c. Bad   d. hard

18. Andi got 90 scores and Jaka got 70 scores in math.

    Andi's scores is high and Jaka's score is _____

    a. Long   b. Short

    c. Small   d. Low

19. It is rainy. The weather is so _____

    a. Warm   c. Hot

    c. Cold   d. Fierce

20. The football yard is _____

    a. Wide   b. Short

    c. Narrow   d. Long

21. Rapunzel's hair is straight and _____.

    a. Curly   b. Short

    c. Long   d. Slim

22. The clock is _____ the wall.

    a. in   b. On

    c. at   d. Under

23. Zahra - Rahma - Sofia

Rahma is _____ Zahra and Sofia.

a. in front of   b. Beside

c. between   d. Behind

24. The teacher sits _____ the class.

a. behind   b. Beside

c. under   d. In front of

25. The book is ____ the table.

a. on   b. In

c. between   d. Beside

26. I bring my bag ____ my back.

a. in front of   b. Under

c. behind   d. Between

27. Can I sit _____ you at the movie theatre?

a. on   b. In

c. between   d. Beside

28. My pencil is _____ the books and the notebooks

a. between   b. In

c. on   d. Behind

29. The chair is_____ the classroom

a. in   b. On

c. beside   d. Behind

30. The library is _____ the canteen and the office

a. between   b. In

c. on   d. Behind

Appendix VI

Key Answer

1.C   2. B   3. A   4. D   5. C   6. C   7. A   8. A   9. D   10. C

11. A   12. D 13. A   14. C   15. A   16. A 17. B   18. D   19. C   20. A

21. C   22. B   23. C   24. D   25. A   26. C   27. D   28. A   29. A   30. A

Appendix VII

Table Score (Experimental Class)

No.	Students' Initial Name	Post Test
1	AF	76
2	AKN	90
3	AFC	63
4	AAS	86
5	HNS	90
6	KAS	80
7	KBS	80
8	MR	56
9	NPS	56
10	NA	86
11	NA	90
12	NNH	80
13	NCH	93
14	NF	83
15	RAF	56
16	RAN	76
17	SKM	76
18	SRA	80
19	SRAH	63
20	SY	73
21	CAS	80

Appendix VIII

Table Score (Control Class)

No.	Students' Initial Name	Post Test
1	AKR	66
2	AI	73
3	AA	73
4	AKT	56
5	ASR	83
6	AS	80
7	AS	73
8	ANA	76
9	CNS	80
10	EKRB	56
11	FAP	53
12	KAR	66
13	KWR	63
14	MLK	73
15	MF	76
16	MLH	66
17	MNS	73
18	NS	66
19	RA	73
20	RVA	66
21	RAS	76
22	RNC	63
23	S	53
24	SH	63
25	S	76
26	TSB	63
27	TAZ	90

Appendix IX

The Calculation of Mean and Standard Deviation (Experimental Class)

No.	Xi (score)	Fi (frequency)	XiFi	Xi^2	FiXi^2
1.	56	3	168	3136	9408
2.	63	2	126	3969	7938
3.	73	1	73	5329	5329
4.	76	3	228	5776	17328
5.	80	5	400	6400	32000
6.	83	1	83	6889	6889
7.	86	2	172	7396	14792
8.	90	3	270	8100	24300
9.	93	1	93	8649	8649
Total		**21**	**1613**		**126633**

1) Mean :

$$X = \frac{\sum FiXi}{\sum Fi} = \frac{1613}{21} = 76{,}809$$

2) Variant :

$$S^2 = \frac{N\,(\sum fixi^2) - (\sum fixi)^2}{N(N-1)}$$

$$= \frac{21(126633) - (1613)^2}{21\,(21-1)}$$

$$= \frac{2659293 - 2601769}{21\,(20)}$$

$$= \frac{57524}{420}$$

$$= 136{,}96$$

3) Deviation

$S = \sqrt{s2}$

$= \sqrt{136,96}$

$= 11,702$

Appendix X

The Calculation of Mean and Standard Deviation (Control Class)

No.	Xi (Score)	Fi (Frequency)	XiFi	Xi^2	$FiXi^2$
1	53	2	106	2809	5618
2	56	2	112	3136	6272
3	63	4	252	3969	15876
4	66	5	330	4356	21780
5	73	6	438	5329	31974
6	76	4	304	5776	23104
7	80	2	160	6400	12800
8	83	1	83	6889	6889
9	90	1	90	8100	8100
Total		**27**	**1875**		**132413**

1) Mean :

$$X = \frac{\sum FiXi}{\sum Fi} = \frac{1875}{27} = 69{,}444$$

2) Variant :

$$S^2 = \frac{N\,(\sum fixi^2) - (\sum fixi)^2}{N(N-1)}$$

$$= \frac{27(132413) - (1875)^2}{27\,(27-1)}$$

$$= \frac{3575151 - 3515625}{27\,(26)}$$

$$= \frac{59526}{702}$$

= 84,794

3) Deviation

$S = \sqrt{s2}$

$= \sqrt{84{,}794}$

$= 9{,}208$

Appendix XI

Validity of the Test

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	0	1	1	0	1	1
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1
0	1	1	0	1	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	0	0	0	1	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	1	0	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0	1	0	0
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	0	1	1
0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	1	1
0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1
0	1	0	0	1	0	1	1	1	1	0	0	0	1	0	1	0	1	0	1	0	0	1	0	0
0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	1	0	0
0	1	1	0	1	0	1	0	1	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0
1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0

26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1	1	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	1	0	1	1
1	1	1	1	0	1	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1	0	0	1
1	1	1	0	0	0	0	1	0	0	0	1	1	1	1	1	0	1	0	0	1	1	0	1	1
1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	0	1	1	0	1	1	1	0
0	1	0	0	0	0	1	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
0	1	0	0	0	0	0	1	1	0	0	1	0	1	0	0	1	0	1	0	0	0	1	0	1
1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	1
1	1	1	1	0	1	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	1	0	0	1
1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1
0	1	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	1	1	0	0	1
1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1
1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	0	1	1
0	0	0	1	0	1	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0
1	1	1	1	0	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	0	1	1
1	0	0	0	1	0	1	1	0	1	1	1	0	0	1	1	0	1	0	0	1	1	0	0	1
1	1	0	1	0	1	0	1	0	1	1	1	0	0	1	1	0	1	0	0	1	0	0	0	1
0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
0	0	1	0	0	1	1	0	1	0	1	0	1	0	0	0	1	0	0	0	0	1	1	0	0
0	1	1	0	0	0	1	1	1	1	0	1	0	0	1	1	0	1	0	1	1	1	0	0	1
1	0	1	1	0	1	0	1	0	1	0	0	1	1	0	1	0	1	0	0	1	1	1	1	1
1	1	1	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0

r table (df=23, =0,05) = 0,443

No.	r_{count}	r_{table}	Status
1.	0,758	0,433	Valid
2.	0,497	0,433	Valid
3.	0,166	0,433	Invalid
4.	0,473	0,433	Valid
5.	0,001	0,433	Invalid
6.	0,517	0,433	Valid
7.	0,497	0,433	Valid
8.	-0,16	0,433	Invalid
9.	0,104	0,433	Invalid
10.	0,361	0,433	Invalid
11.	0,735	0,433	Valid
12.	0,154	0,433	Invalid
13.	0,738	0,433	Valid
14.	0,498	0,433	Valid
15.	0,587	0,433	Valid
16.	0,506	0,433	Valid
17.	0,340	0,433	Invalid
18.	0,346	0,433	Invalid
19.	0,724	0,433	Valid
20.	0,351	0,433	Invalid
21.	0,748	0,433	Valid
22.	0,642	0,433	Valid
23.	0,408	0,433	Invalid
24.	0,696	0,433	Valid
25.	0,642	0,433	Valid
26.	0,661	0,433	Valid
27.	0,321	0,433	Invalid
28.	0,617	0,433	Valid
29.	0,685	0,433	Valid

30.	0,447	0,433	Valid
31.	0,560	0,433	Valid
32.	-0,178	0,433	Invalid
33.	0,475	0,433	Valid
34.	-0,82	0,433	Invalid
35.	0,256	0,433	Invalid
36.	-0,93	0,433	Invalid
37.	0,135	0,433	Invalid
38.	0,498	0,433	Valid
39.	0,695	0,433	Valid
40.	0,246	0,433	Invalid
41.	0,350	0,433	Invalid
42.	0,421	0,433	Valid
43.	0,500	0,433	Valid
44.	0,579	0,433	Valid
45.	0,638	0,433	Valid
46.	0,500	0,433	Valid
47.	0,558	0,433	Valid
48.	0,19	0,433	Invalid
49.	0.237	0,433	Invalid
50	0,475	0,433	Valid

Appendix XII

Reliability of the Test

The formula as follows:

$$r_{11} = \frac{K}{K-1}\left(1 - \frac{M(K-M)}{K.St^2}\right)$$

K = 30

$St^2 = 67,90909$

M = 19

$$r_{11} = \frac{30}{30-1}\left(1 - \frac{19(30-19)}{30 * 67,90909}\right)$$

$$r_{11} = 1,034483\left(1 - \frac{209}{2037,273}\right)$$

$$r_{11} = 1,034483 * 0,897412$$

$$r_{11} = 0,928357$$

Appendix XIII

The Calculation of Normality Testing (Experimental Class)

No.	Score	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)
1	56	-1,778	0,0384	0,142	0,1036
2	56	-1,778	0,0384	0,142	0,1036
3	56	-1,778	0,0384	0,142	0,1036
4	63	-1,18	0,119	0,238	0,119
5	63	-1,18	0,119	0,238	**0,119**
6	73	-0,325	0,3745	0,285	0,0895
7	76	0,069	0,5239	0,428	0,0959
8	76	0,069	0,5239	0,428	0,0959
9	76	0,069	0,5239	0,428	0,0959
10	80	0,272	0,6064	0,666	0,0596
11	80	0,272	0,6064	0,666	0,0596
12	80	0,272	0,6064	0,666	0,0596
13	80	0,272	0,6064	0,666	0,0596
14	80	0,272	0,6064	0,666	0,0596
15	83	0,529	0,6985	0,714	0,0155
16	86	0,785	0,7823	0,809	0,0267
17	86	0,785	0,7823	0,809	0,0267
18	90	1,127	0,8686	0,952	0,0834
19	90	1,127	0,8686	0,952	0,0834
20	90	1,127	0,8686	0,952	0,0834
21	93	1,383	0,9162	1	0,0838

1) Finding Z score

Formula: $Zi = \frac{Xi - \bar{X}}{s}$

$Zi\,1 = \frac{56 - 76,809}{11,702} = -1,778$

$$\text{Zi } 2 = \frac{63 - 76{,}809}{11{,}702} = -1{,}180$$

$$\text{Zi } 3 = \frac{73 - 76{,}809}{11{,}702} = -0{,}325$$

$$\text{Zi } 4 = \frac{76 - 76{,}809}{11{,}702} = -0{,}069$$

$$\text{Zi } 5 = \frac{80 - 76{,}809}{11{,}702} = 0{,}272$$

$$\text{Zi } 6 = \frac{83 - 76{,}809}{11{,}702} = 0{,}529$$

$$\text{Zi } 7 = \frac{86 - 76{,}809}{11{,}702} = 0{,}785$$

$$\text{Zi } 8 = \frac{90 - 76{,}809}{11{,}702} = 1{,}127$$

$$\text{Zi } 9 = \frac{93 - 76{,}809}{11{,}702} = 1{,}383$$

2) Finding S Zi

$$\text{S Zi} = \frac{F\ Kum}{N}$$

$$\frac{3}{21} = 0{,}142$$

$$\frac{5}{21} = 0{,}238$$

$$\frac{6}{21} = 0{,}285$$

$$\frac{9}{21} = 0{,}428$$

$$\frac{14}{21} = 0{,}666$$

$$\frac{15}{21} = 0{,}714$$

$$\frac{17}{21} = 0{,}809$$

$$\frac{20}{21} = 0{,}952$$

$$\frac{21}{21} = 1$$

Appendix XIV
The Calculation of Normality Testing (Control Class)

No.	Score	Zi	F(Zi)	S(Zi)	F(Zi)-S(Zi)
1	53	-1,785	0,0375	0,074	-0,0365
2	53	-1,785	0,0375	0,074	-0,0365
3	56	-1,46	0,0721	0,148	-0,0759
4	56	-1,46	0,0721	0,148	-0,0759
5	63	-0,699	0,2451	0,296	-0,0509
6	63	-0,699	0,2451	0,296	-0,0509
7	63	-0,699	0,2451	0,296	-0,0509
8	63	-0,699	0,2451	0,296	-0,0509
9	66	-0,374	0,3557	0,481	-0,1253
10	66	-0,374	0,3557	0,481	-0,1253
11	66	-0,374	0,3557	0,481	-0,1253
12	66	-0,374	0,3557	0,481	-0,1253
13	66	-0,374	0,3557	0,481	-0,1253
14	73	0,386	0,648	0,703	-0,055
15	73	0,386	0,648	0,703	-0,055
16	73	0,386	0,648	0,703	-0,055
17	73	0,386	0,648	0,703	-0,055
18	73	0,386	0,648	0,703	-0,055
19	73	0,386	0,648	0,703	-0,055
20	76	0,711	0,7611	0,851	-0,0899
21	76	0,711	0,7611	0,851	-0,0899
22	76	0,711	0,7611	0,851	-0,0899
23	76	0,711	0,7611	0,851	-0,0899
24	80	1,146	0,8729	0,925	-0,0521
25	80	1,146	0,8729	0,925	-0,0521
26	83	1,472	0,9292	0,962	-0,0328
27	90	2,232	0,9871	1	-0,0129

1) Finding Z score

Formula: Zi $= \frac{Xi - \bar{X}}{s}$

$$Zi\ 1 = \frac{53 - 69,444}{9,208} = -1,785$$

$$Zi\ 2 = \frac{56 - 69,444}{9,208} = -1,460$$

$$Zi\ 3 = \frac{63 - 69,444}{9,208} = -0,699$$

$$Zi\ 4 = \frac{66 - 69,444}{9,208} = -0,374$$

$$Zi\ 5 = \frac{73 - 69,444}{9,208} = 0,386$$

$$Zi\ 6 = \frac{76 - 69,444}{9,208} = 0,711$$

$$Zi\ 7 = \frac{80 - 69,444}{9,208} = 1,146$$

$$Zi\ 8 = \frac{83 - 69,444}{9,208} = 1,472$$

$$Zi\ 9 = \frac{90 - 69,444}{9,208} = 2,23$$

3) Finding S Zi

$$S\ Zi = \frac{F\ Kum}{N}$$

$$\frac{2}{27} = 0,074$$

$$\frac{4}{27} = 0,148$$

$$\frac{8}{27} = 0,296$$

$$\frac{13}{27} = 0,481$$

$$\frac{19}{27} = 0,703$$

$$\frac{23}{27} = 0,851$$

$$\frac{25}{27} = 0,925$$

$$\frac{26}{27} = 0,962$$

$$\frac{27}{27} = 1$$

<div align="center">

Appendix XV

The Calculation of Homogenity Testing

</div>

The formula :

$$F = \frac{Highest\ Variant}{Lowest\ Variant}$$

$$F = \frac{136{,}96}{84{,}794}$$

$$F = 1{,}615$$

Appendix XVI

Hypothesis Testing

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{(N_1-1)(S_1)+(N_2-1)(S_2)}{N_1+N_2-2}\right)\left(\frac{1}{N_1}+\frac{1}{N_2}\right)}}$$

$$t = \frac{76,809-69,444}{\sqrt{\left(\frac{(21-1)(11,702)+(27-1)(9,208)}{21+27-2}\right)\left(\frac{1}{21}+\frac{1}{27}\right)}}$$

$$t = \frac{7,365}{\sqrt{(10,292)(0,084)}}$$

$$t = \frac{7,365}{0,702} = 10,491$$

Appendix XVII

Table of Liliefors (L)

Nilai Kritis L Untuk Uji liliefors

Ukuran	Taraf Nyata (α)				
Sampel (n)	0,01	0,05	0,10	0,15	0,20
4	0,417	0,381	0,352	0,319	0,300
5	0,405	0,337	0,315	0,229	0,285
6	0,364	0,319	0,294	0,277	0,265
7	0,348	0,300	0,276	0,258	0,247
8	0,331	0,285	0,261	0,244	0,233
9	0,311	0,271	0,249	0,233	0,223
10	0,294	0,258	0,239	0,224	0,215
11	0,284	0,249	0,230	0,217	0,206
12	0,275	0,242	0,223	0,212	0,199
13	0,268	0,234	0,214	0,202	0,190
14	0,261	0,227	0,207	0,194	0,183
15	0,257	0,220	0,201	0,187	0,177
16	0,250	0,213	0,195	0,182	0,173
17	0,245	0,206	0,189	0,177	0,169
18	0,239	0,200	0,184	0,173	0,166
19	0,235	0,195	0,179	0,169	0,163
20	0,231	0,190	0,174	0,166	0,160
25	0,200	0,173	0,158	0,147	0,142
30	0,187	0,161	0,144	0,136	0,131
> 30	$\dfrac{1,031}{\sqrt{n}}$	$\dfrac{0,886}{\sqrt{n}}$	$\dfrac{0,805}{\sqrt{n}}$	$\dfrac{0,768}{\sqrt{n}}$	$\dfrac{0,736}{\sqrt{n}}$

Appendix XVIII

Table of F Distribution

NILAI-NILAI UNTUK DISTRIBUSI F

Baris atas untuk 5%
Baris bawah untuk 1%

V_1 = dk pembilang

v2 (Penyebut)	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
1	161 / 4.052	200 / 4.999	216 / 5.403	225 / 5.625	230 / 5.764	234 / 5.859	237 / 5.928	239 / 5.981	241 / 6.022	242 / 6.056	243 / 6.082	244 / 6.106	245 / 6.142	246 / 6.169	248 / 6.208	249 / 6.234	250 / 6.258	251 / 6.286	252 / 6.302	253 / 6.323	253 / 6.334	254 / 6.352	254 / 6.361	254 / 6.366
2	18.51 / 98.49	19.00 / 99.00	19.16 / 99.17	19.25 / 99.25	19.30 / 99.30	19.33 / 99.33	19.36 / 99.34	19.37 / 99.36	19.38 / 99.38	19.39 / 99.40	19.4 / 99.41	19.41 / 99.42	19.42 / 99.43	19.43 / 99.44	19.44 / 99.45	19.45 / 99.46	19.46 / 99.47	19.47 / 99.48	19.47 / 99.48	19.48 / 99.49	19.49 / 99.49	19.49 / 99.49	19.50 / 99.50	19.50 / 99.50
3	10.13 / 34.12	9.55 / 30.81	9.28 / 29.46	9.12 / 28.71	9.01 / 28.24	8.94 / 27.91	8.88 / 27.67	8.84 / 27.49	8.81 / 27.34	8.76 / 27.23	8.76 / 27.13	8.74 / 27.05	8.71 / 26.92	8.69 / 26.83	8.66 / 26.69	8.64 / 26.60	8.62 / 26.50	8.60 / 26.41	8.58 / 26.35	8.57 / 26.27	8.56 / 26.23	8.54 / 26.18	8.54 / 26.14	8.53 / 26.12
4	7.71 / 21.20	6.94 / 18.00	6.59 / 16.69	6.39 / 15.98	6.26 / 15.52	6.16 / 15.21	6.09 / 14.98	6.04 / 14.80	6.00 / 14.66	5.96 / 14.54	5.93 / 14.45	5.91 / 14.37	5.87 / 14.24	5.84 / 14.15	5.80 / 14.02	5.77 / 13.93	5.74 / 13.83	5.71 / 13.74	5.70 / 13.69	5.68 / 13.61	5.66 / 13.57	5.65 / 13.52	5.64 / 13.48	5.63 / 13.46
5	6.61 / 16.26	5.79 / 13.27	5.41 / 12.06	5.19 / 11.39	5.05 / 10.97	4.95 / 10.67	4.88 / 10.45	4.82 / 10.27	4.78 / 10.15	4.74 / 10.05	4.70 / 9.96	4.68 / 9.89	4.64 / 9.77	4.60 / 9.68	4.56 / 9.55	4.53 / 9.47	4.50 / 9.38	4.46 / 9.29	4.44 / 9.24	4.42 / 9.17	4.40 / 9.13	4.38 / 9.07	4.37 / 9.04	4.36 / 9.02
6	5.99 / 13.74	5.14 / 10.92	4.76 / 9.78	4.53 / 9.15	4.39 / 8.75	4.28 / 8.47	4.21 / 8.26	4.15 / 8.10	4.10 / 7.98	4.06 / 7.87	4.03 / 7.79	4.00 / 7.72	3.96 / 7.60	3.92 / 7.52	3.87 / 7.39	3.84 / 7.31	3.81 / 7.23	3.77 / 7.14	3.75 / 7.09	3.72 / 7.02	3.71 / 6.99	3.69 / 6.94	3.68 / 6.90	3.67 / 6.88
7	5.59 / 12.25	4.74 / 9.55	4.35 / 8.45	4.14 / 7.85	3.97 / 7.46	3.87 / 7.19	3.79 / 7.00	3.73 / 6.84	3.68 / 6.71	3.63 / 6.62	3.60 / 6.54	3.57 / 6.47	3.51 / 6.35	3.49 / 6.27	3.44 / 6.15	3.41 / 6.07	3.38 / 5.98	3.34 / 5.90	3.32 / 5.85	3.29 / 5.78	3.28 / 5.75	3.25 / 5.70	3.24 / 5.67	3.23 / 5.65
8	5.32 / 11.26	4.46 / 8.65	4.07 / 7.59	3.84 / 7.01	3.69 / 6.63	3.58 / 6.37	3.50 / 6.19	3.44 / 6.03	3.39 / 5.91	3.34 / 5.82	3.31 / 5.74	3.28 / 5.67	3.23 / 5.56	3.20 / 5.48	3.15 / 5.36	3.12 / 5.28	3.08 / 5.20	3.05 / 5.11	3.03 / 5.06	3.00 / 5.00	2.98 / 4.96	2.96 / 4.91	2.94 / 4.88	2.93 / 4.86
9	5.12 / 10.56	4.26 / 8.02	3.86 / 6.99	3.63 / 6.42	3.48 / 6.06	3.37 / 5.80	3.29 / 5.62	3.23 / 5.47	3.18 / 5.35	3.13 / 5.26	3.10 / 5.18	3.07 / 5.11	3.02 / 5.00	2.98 / 4.92	2.93 / 4.80	2.90 / 4.73	2.86 / 4.64	2.82 / 4.56	2.80 / 4.51	2.77 / 4.45	2.76 / 4.41	2.73 / 4.36	2.72 / 4.33	2.71 / 4.31
10	4.96 / 10.04	4.10 / 7.56	3.71 / 6.55	3.48 / 5.99	3.33 / 5.64	3.22 / 5.39	3.14 / 5.21	3.07 / 5.06	3.02 / 4.95	2.97 / 4.85	2.94 / 4.78	2.91 / 4.71	2.86 / 4.60	2.82 / 4.52	2.77 / 4.41	2.74 / 4.33	2.70 / 4.25	2.67 / 4.17	2.64 / 4.12	2.61 / 4.05	2.59 / 4.01	2.56 / 3.96	2.55 / 3.93	2.54 / 3.91
11	4.84 / 9.65	3.98 / 7.20	3.59 / 6.22	3.36 / 5.67	3.20 / 5.32	3.09 / 5.07	3.01 / 4.88	2.95 / 4.74	2.90 / 4.63	2.86 / 4.54	2.82 / 4.46	2.79 / 4.40	2.74 / 4.29	2.70 / 4.21	2.65 / 4.10	2.61 / 4.02	2.57 / 3.94	2.53 / 3.86	2.50 / 3.80	2.47 / 3.74	2.45 / 3.70	2.42 / 3.66	2.41 / 3.62	2.40 / 3.60

F-distribution table — rows: Penyebut (dk = denominator degrees of freedom); columns: V_1 = dk pembilang (numerator degrees of freedom). Each cell shows the 5% (top) and 1% (bottom) critical values.

Penyebut dk	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
12	4.75 / 9.33	3.88 / 6.93	3.49 / 5.95	3.26 / 5.41	3.11 / 5.06	3.00 / 4.82	2.92 / 4.65	2.85 / 4.50	2.80 / 4.39	2.76 / 4.30	2.72 / 4.22	2.69 / 4.16	2.64 / 4.05	2.60 / 3.98	2.54 / 3.86	2.50 / 3.78	2.45 / 3.70	2.42 / 3.61	2.40 / 3.56	2.36 / 3.49	2.35 / 3.46	2.32 / 3.41	2.31 / 3.38	2.30 / 3.36
13	4.67 / 9.07	3.80 / 6.70	3.41 / 5.74	3.18 / 5.20	3.02 / 4.86	2.92 / 4.62	2.84 / 4.44	2.77 / 4.30	2.72 / 4.19	2.67 / 4.10	2.63 / 4.02	2.60 / 3.96	2.55 / 3.85	2.51 / 3.78	2.46 / 3.67	2.42 / 3.59	2.38 / 3.51	2.34 / 3.42	2.32 / 3.37	2.28 / 3.30	2.26 / 3.27	2.24 / 3.21	2.22 / 3.18	2.21 / 3.16
14	4.60 / 8.86	3.74 / 6.51	3.34 / 5.56	3.11 / 5.03	2.96 / 4.69	2.85 / 4.46	2.77 / 4.28	2.70 / 4.14	2.65 / 4.03	2.60 / 3.94	2.56 / 3.86	2.53 / 3.80	2.48 / 3.70	2.44 / 3.62	2.39 / 3.51	2.35 / 3.43	2.31 / 3.34	2.27 / 3.26	2.24 / 3.21	2.21 / 3.14	2.19 / 3.11	2.16 / 3.06	2.14 / 3.02	2.13 / 3.00
15	4.54 / 8.68	3.68 / 6.36	3.29 / 5.42	3.06 / 4.89	2.90 / 4.56	2.79 / 4.32	2.70 / 4.14	2.64 / 4.00	2.59 / 3.89	2.55 / 3.80	2.51 / 3.73	2.48 / 3.67	2.43 / 3.56	2.39 / 3.48	2.33 / 3.36	2.29 / 3.29	2.25 / 3.20	2.21 / 3.12	2.18 / 3.07	2.15 / 3.00	2.12 / 2.97	2.10 / 2.92	2.08 / 2.89	2.07 / 2.87
16	4.49 / 8.53	3.63 / 6.23	3.24 / 5.29	3.01 / 4.77	2.85 / 4.44	2.74 / 4.20	2.66 / 4.03	2.59 / 3.89	2.54 / 3.78	2.49 / 3.69	2.45 / 3.61	2.42 / 3.55	2.37 / 3.45	2.33 / 3.37	2.28 / 3.25	2.24 / 3.18	2.20 / 3.10	2.16 / 3.01	2.13 / 2.96	2.09 / 2.89	2.07 / 2.86	2.04 / 2.80	2.02 / 2.77	2.01 / 2.75
17	4.45 / 8.40	3.59 / 6.11	3.20 / 5.18	2.96 / 4.67	2.81 / 4.34	2.70 / 4.10	2.62 / 3.93	2.55 / 3.79	2.50 / 3.68	2.45 / 3.59	2.41 / 3.52	2.38 / 3.45	2.33 / 3.35	2.29 / 3.27	2.23 / 3.16	2.19 / 3.08	2.15 / 3.00	2.11 / 2.92	2.08 / 2.86	2.04 / 2.79	2.02 / 2.76	1.99 / 2.70	1.97 / 2.67	1.96 / 2.65
18	4.41 / 8.28	3.55 / 6.01	3.16 / 5.09	2.93 / 4.58	2.77 / 4.25	2.66 / 4.01	2.58 / 3.85	2.51 / 3.71	2.46 / 3.60	2.41 / 3.51	2.37 / 3.44	2.34 / 3.37	2.29 / 3.27	2.25 / 3.19	2.19 / 3.07	2.15 / 3.00	2.11 / 2.91	2.07 / 2.83	2.04 / 2.78	2.00 / 2.71	1.98 / 2.68	1.95 / 2.62	1.93 / 2.59	1.92 / 2.57
19	4.38 / 8.18	3.52 / 5.93	3.13 / 5.01	2.90 / 4.50	2.74 / 4.17	2.63 / 3.94	2.55 / 3.77	2.48 / 3.63	2.43 / 3.52	2.38 / 3.43	2.34 / 3.36	2.31 / 3.30	2.26 / 3.19	2.21 / 3.12	2.15 / 3.00	2.11 / 2.92	2.07 / 2.84	2.02 / 2.76	2.00 / 2.70	1.96 / 2.63	1.94 / 2.60	1.91 / 2.54	1.90 / 2.51	1.88 / 2.49
20	4.35 / 8.10	3.49 / 5.85	3.10 / 4.94	2.87 / 4.43	2.71 / 4.10	2.60 / 3.87	2.52 / 3.71	2.45 / 3.56	2.40 / 3.45	2.35 / 3.37	2.31 / 3.30	2.28 / 3.23	2.23 / 3.13	2.18 / 3.05	2.12 / 2.94	2.08 / 2.86	2.04 / 2.77	1.99 / 2.69	1.96 / 2.63	1.92 / 2.56	1.90 / 2.53	1.87 / 2.47	1.85 / 2.44	1.84 / 2.42
21	4.32 / 8.02	3.47 / 5.78	3.07 / 4.87	2.84 / 4.37	2.68 / 4.04	2.57 / 3.81	2.49 / 3.65	2.42 / 3.51	2.37 / 3.40	2.32 / 3.31	2.28 / 3.24	2.25 / 3.17	2.20 / 3.07	2.15 / 2.99	2.09 / 2.88	2.05 / 2.80	2.00 / 2.72	1.96 / 2.63	1.93 / 2.58	1.89 / 2.51	1.87 / 2.47	1.84 / 2.42	1.82 / 2.38	1.81 / 2.36
22	4.30 / 7.94	3.44 / 5.72	3.05 / 4.82	2.82 / 4.31	2.66 / 3.99	2.55 / 3.76	2.47 / 3.59	2.40 / 3.45	2.35 / 3.35	2.30 / 3.26	2.26 / 3.18	2.23 / 3.12	2.18 / 3.02	2.13 / 2.94	2.07 / 2.83	2.03 / 2.75	1.98 / 2.67	1.93 / 2.58	1.91 / 2.53	1.87 / 2.46	1.84 / 2.42	1.81 / 2.37	1.80 / 2.33	1.78 / 2.31
23	4.28 / 7.88	3.42 / 5.66	3.03 / 4.76	2.80 / 4.26	2.64 / 3.94	2.53 / 3.71	2.45 / 3.54	2.38 / 3.41	2.32 / 3.30	2.28 / 3.21	2.24 / 3.14	2.20 / 3.07	2.14 / 2.97	2.10 / 2.89	2.04 / 2.78	2.00 / 2.70	1.96 / 2.62	1.91 / 2.53	1.88 / 2.48	1.84 / 2.41	1.82 / 2.37	1.79 / 2.32	1.77 / 2.28	1.76 / 2.26
24	4.26 / 7.82	3.40 / 5.61	3.01 / 4.72	2.78 / 4.22	2.62 / 3.90	2.51 / 3.67	2.43 / 3.50	2.36 / 3.36	2.30 / 3.25	2.26 / 3.17	2.22 / 3.09	2.18 / 3.03	2.13 / 2.93	2.09 / 2.85	2.02 / 2.74	1.98 / 2.66	1.94 / 2.58	1.89 / 2.49	1.86 / 2.44	1.82 / 2.36	1.80 / 2.33	1.77 / 2.27	1.74 / 2.23	1.73 / 2.21
25	4.24 / 7.77	3.38 / 5.57	2.99 / 4.68	2.76 / 4.18	2.60 / 3.86	2.49 / 3.63	2.41 / 3.46	2.34 / 3.32	2.28 / 3.21	2.24 / 3.13	2.20 / 3.05	2.16 / 2.99	2.11 / 2.89	2.06 / 2.81	2.00 / 2.70	1.96 / 2.62	1.92 / 2.54	1.87 / 2.45	1.84 / 2.40	1.80 / 2.32	1.77 / 2.29	1.74 / 2.23	1.72 / 2.19	1.71 / 2.17
26	4.22 / 7.72	3.37 / 5.53	2.98 / 4.64	2.74 / 4.14	2.59 / 3.82	2.47 / 3.59	2.39 / 3.42	2.32 / 3.29	2.27 / 3.17	2.22 / 3.09	2.18 / 3.02	2.15 / 2.96	2.10 / 2.86	2.05 / 2.77	1.99 / 2.66	1.95 / 2.58	1.90 / 2.50	1.85 / 2.41	1.82 / 2.36	1.78 / 2.28	1.76 / 2.25	1.72 / 2.19	1.70 / 2.15	1.69 / 2.13

Appendix XIX

Table of T Distribution

	α untuk uji dua fihak (two tail test)					
	0.50	0.20	0.10	0.05	0.02	0.01
	α untuk uji satu fihak (one tail test)					
dk	0.25	0.10	0.05	0.025	0.01	0.005
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,727	1,476	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,355
9	0,703	1,383	1,833	2,262	2,821	3,250
10	0,700	1,372	1,812	2,228	2,764	3,169
11	0,697	1,363	1,796	2,201	2,718	3,106
12	0,695	1,356	1,782	2,179	2,681	3,055
13	0,692	1,350	1,771	2,160	2,650	3,012
14	0,691	1,345	1,761	2,145	2,624	2,977
15	0,690	1,341	1,753	2,131	2,602	2,947
16	0,689	1,337	1,746	2,120	2,583	2,921
17	0,688	1,333	1,740	2,110	2,567	2,898
18	0,688	1,330	1,734	2,101	2,552	2,878
19	0,687	1,328	1,729	2,093	2,539	2,861
20	0,687	1,325	1,725	2,086	2,528	2,845
21	0,686	1,323	1,721	2,080	2,518	2,831
22	0,686	1,321	1,717	2,074	2,508	2,819
23	0,685	1,319	1,714	2,069	2,500	2,807
24	0,685	1,318	1,711	2,064	2,492	2,797
25	0,684	1,316	1,708	2,060	2,485	2,787
26	0,684	1,315	1,706	2,056	2,479	2,779
27	0,684	1,314	1,703	2,052	2,473	2,771
28	0,683	1,313	1,701	2,048	2,467	2,763
29	0,683	1,311	1,699	2,045	2,462	2,756
30	0,683	1,310	1,697	2,042	2,457	2,750
40	0,681	1,303	1,684	2,021	2,423	2,704
60	0,679	1,296	1,671	2,000	2,390	2,660
120	0,677	1,289	1,658	1,980	2,358	2,617
∞	0,674	1,282	1,645	1,960	2,326	2,576

Biography

Name : Siti Lutfiah Rabiyatul Adawiyah

Reg. Number : 0304162101

Department : English Education

Place/Date of Birth : Laras, 14 Desember 1998

Religion : Islam

Address : Jln. Pasar Baru Huta II Marjandi Embong Kecamatan Panombeian Panei Kabupaten Simalungun

Thesis Title : The Effect of Word Webbing Technique on the Students' Vocabulary Mastery at SMP Swasta Galih Agung

Advisor I : Dr. Didik Santoso, M.Pd.

Advisor II : Drs. H. Achmad Ramadhan, M.A

Father"s name : Mudianto, SP., M.Si

Mother"s name : Hafizah Rayani SPdI

Education :

   a. SDN. 091290 Simpang Raya

   b. SMP Swasta Galih Agung

   c. SMA Swasta Galih Agung

   d. Student of English Department State Islamic University of North Sumatera

Appendix XXI

Documentation

Treatment in experimental class

Treatment in control class

Students of Experimental Class doing Post-test

Students of Control Class doing Post-test

Students in Experimental Class

Students in Control Class

Appendix XXII

SURAT KETERANGAN
No : 02/232/A-c/PDA/IX/2020

Saya yang bertanda tangan di bawah ini, Ketua Yayasan Pesantren Darularafah Raya, dengan ini menerangkan bahwa :

N a m a	: Siti Lutfiah Rabiyatul Adawiyah
NIM	: 0304162101
Tempat, Tanggal Lahir	: Laras, 14 Desember 1998
Jurusan	: Pendidikan Bahasa Inggris
Fakultas	: Ilmu Tarbiyah dan Keguruan
Universitas	: Universitas Islam Negeri Sumatera Utara Medan
Judul	: *"The Effect Of Word Webbing Technique On The Student' Vocabulary Mastery "*

Adalah benar nama tersebut diatas telah melaksanakan riset yang bertempat di Yayasan Pesantren Darularafah Raya pada tanggal 12 Agustus – 12 September 2020.

Demikian surat keterangan ini dibuat dengan sebenarnya untuk dapat dipergunakan sebaik-baiknya.

Lau Bakeri, 12 September 2020
Ketua Yayasan
Pesantren Darularafah Raya

H. Harun Lubis, S.T, M.Psi.