

**THE USE OF DUOLINGO APPLICATION TO INCREASE STUDENTS' VOCABULARY
OF THE SEVENTH GRADE STUDENTS OF SMP YWKA PALEMBANG**

THESIS

**By:
TRI ULAN DARI**

372019029



**ENGLISH EDUCATION STUDY PROGRAM
FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITAS MUHAMMADIYAH PALEMBANG**

2023

**THE USE OF DUOLINGO APPLICATION TO INCREASE STUDENTS' VOCABULARY
OF THE SEVENTH GRADE STUDENTS OF SMP YWKA PALEMBANG**

THESIS

Presented to

Universitas Muhammadiyah Palembang

In Partial Fulfilment of the Requirement

For the degree of Sarjana in English Language Education

By

Tri Ulan Dari

NIM 372019029

ENGLISH EDUCATION STUDY PROGRAM

FACULTY OF TEACHER TRAINING AND EDUCATION

UNIVERSITAS MUHAMMADIYAH PALEMBANG

2023

This thesis written by Tri Ulan Dari has been certified to be examined

Palembang, 2023

Advisor I,

A handwritten signature in black ink, consisting of several loops and a long vertical stroke, positioned above the name of the advisor.

Sri Yuliani, S.Pd., M.Pd.

Palembang, 2023

Advisor II,

A handwritten signature in black ink, featuring a large initial 'A' followed by several loops and a horizontal stroke, positioned above the name of the advisor.

Asti Gumartifa, S.Pd., M.Pd.

This is to certify that Sarjana's thesis of Tri Ulan Dari has been approved by the Board of examiners as the requirement for the Sarjana Degree in English Education Study Program, Universitas Muhammadiyah Palembang.



Sri Yuliani, S.Pd., M.Pd. (Chairperson)



Asti Gumartifa, S.Pd., M.Pd. (Member)

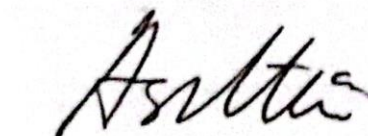


Dr. Tri Rositasari, M.Pd. (Member)

Acknowledged by

The Head of

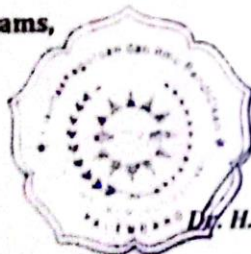
English Education Study Programs,



Asti Gumartifa, S.Pd., M.Pd.

Approved by

The Dean of FKIP UMP



Dr. H. Rusdi A. Siroj, M.Pd.

SURAT PERNYATAAN KEASLIAN KARYA

Saya yang bertanda tangan dibawah ini :

Nama : Tri Ulan Dari
Nim : 372019029
Program Studi : Pendidikan Bahasa Inggris
Telp/Hp : 081247408276

Menyatakan bahwa skripsi berjudul :

“ The Use of Duolingo Application to Increase Students' Vocabulary of the Seventh Grade Studenets of SMP YWKA Palembang “

Beserta seluruh isinya adalah benar merupakan hasil karya sendiri dan saya tidak melakukan penjiplakan atau pengutipan dengan cara - cara yang tidak sesuai dengan etika keilmuan dalam masyarakat ilmiah.

Atas pernyataan ini , saya siap menerima segala sanksi yang berlaku atau yang ditetapkan untuk itu. Apabila dikemudian hari ternyata pernyataan saya tidak benar atau ada klaim dari pihak lain terhadap keaslian skripsi saya.

Palembang, April 2023

Yang menyatakan,



METERAI
TEMPEL
314AKX374378402

Tri Ulan Dari

NIM.372019029

MOTTO AND DEDICATION

Motto :

- ❖ “And He is with you wherever you are (Al-Quran 57;4) “

Dedication

Thanks to :

- ❖ My beloved parents, my dad Izhari and my mom Sakiro. This thesis is my little tribute to my parents. When world closes its doors on me, mom and dad open its arms for me. When people closes their ears to me, they both open their hearts to me. Thank you for always being there for me. I love mom and dad more than you know.
- ❖ My beloved sister, Nova Sari, S.Kep., Ns. and Mitra Dewi , S.M., thank you for all support, help, and always give me motivation.
- ❖ All of my beloved friends in the English Education Study 2019, especially my best colleague in class Belgy Inka Lawrence, R.A. Siti Tanti Anggraini, Sovie Berliana, Meisy Arinda, Rahma Ayuni, Arni Putri, and Diana Fatimah. Thank you so much for your support, help, sharing, and always together writing a thesis.
- ❖ The head of English Study Program, Asti Gumartifa, S.Pd., M.Pd., thank you for your help, advice, and support.
- ❖ My great advisor 1, Sri Yuliani, S.Pd., M.Pd., thank you for your time that teach me writing thesis way better, for your care, support and solution. I will always remember your kindness.
- ❖ My great advisor 2, Asti Gumartifa, S.Pd., M.Pd., thank you were be my advisor 2 thank you so much for your guidance, advice, help, patience, support, spirit and encouragement in conducting this thesis.
- ❖ All lectures in faculty of Teacher Training and Eduation, especially in English Educatio Study Program, Universitas Muhammadiyah thank you for all supports.
- ❖ Thank to SMP YWKA Palembang as place to do research and thank to the head of school that allowed me do the research.

- ❖ Thank you to Miss Welly as teacher of english grade VII.1, VII.2, and VII.3.
- ❖ Thank you for students grade VII.1 , VII.2, and VII.3 as subjects to my research to finished this thesis.
- ❖ Thank you for almamater, Universitas Muhammadiyah Palembang.

ABSTRACT

Ulan Dari , Tri, 2023. *The Use of Duolingo Application to Increase Sudents' Vocabulary of the Seventh Grade of SMP YWKA Palembang*. Thesis, English Education Study Program, Sarjana Degree (S1), Faculty of Teacher Training and Education, Universitas Muhammadiyah Palembang, Advisors: (1) Sri Yuliani, S.Pd., M.Pd. (2) Asti Gumartifa, S.Pd., M.Pd.

Keywords: *Vocabulary, Duolingo Application*

The objective of this research was to find out whether or not it is effective to use Duolingo Application to increase students vocabulary in the seventh grade of SMP YWKA Palembang. . The method of this study was Quasi-Experimental Study. The population of this study was the seventh grade students of SMP YWKA Palembang. The sample consist of 40 students from VII.1 as the Experimental Class and 40 students from VII.2 as the Control Class . The Experimental Class taught by using Duolingo Application and Control taught without using Duolingo Application. The research instrument was Pre-test and Post-test, In analyzing the data showed the result of the value of the t- obtained in Experimental Class was -3.836 df (degree of freedom) the formula is $(n-1)$ sample is 40 , df was 39. At the significance level more than 0,5 for the 2 tailed and degree of freedom df was 39 , therefore t-obtained was higher than t -table. So H_0 (nul hypothesis) was rejected and H_a (alternative hypothesis) was accepted. The result of the study Indicated that the use of Duolingo Application can increase student's vocabulary of the seventh grade students of SMP YWKA Palembang in Academic year 2022/2023.

ACKNOWLEDGMENTS



“In the Name of Allah the Most Gracious and the Most Merciful”

All praises to Allah Subhanahu Wa Ta’ala for Mercy and Guidance till the researcher can finish this thesis on time. This thesis entitled “ The Use of Duolingo Application to Increase Students’ Vocabulary of the Seventh Grade of SMP YWKA Palembang”. Which is one of the requirements for the Sarjana Degree examination at the English Education Study Program, Faculty of Teacher Training and Education, Universitas Muhammadiyah Palembang 2023. The researcher would like to express her sincerest and deepest gratitude to these following people :

1. Dr. Abid Djazuli, S.E., M.M., as Rector Universitas Muhammadiyah Palembang who permitted the researcher to conduct the study.
2. Dr. H. Rusdy A. Siroj, M.Pd as Dean of Teacher Training and Education Faculty of Muhammadiyah University for giving the researcher his permission and facilitating this study.
3. Asti Gumartifa, S.Pd., M.Pd. as Head of English Education Study Program.
4. Sri Yuliani, S.Pd., M.Pd. as advisor I, Asti Gumartifa, S.Pd., M.Pd. as advisor II. Thank you so much for your guidance, advice, help, suggestion, correction, and encouragement which the researcher finds very helpful so that the researcher could finish this thesis well.
5. All the lecturers of the English Department of Faculty of Teacher Training and Education Universitas Muhammadiyah Palembang, who have taught, guided and helped the research during his study in this university.
6. All of the staff a member at Universitas Muhammadiyah Palembang.

The researcher realizes that this thesis is far from being perfect. There are still many weaknesses that need to be improved in this thesis. The researcher accepts any kind of criticism, comments, suggestion, and advice Last but not least, she hopes that this thesis will be useful for the university and the next researcher in the future.

Palembang, April 2023

The researcher,

Tri Ulan Dari

TABLE OF CONTENT

TITLE PAGE	i
AGREEMENT PAGE	ii
APPROVAL PAGE	iii
STATEMENT LETTER	iv
MOTO AND DEDICATION	v
ABSTRACT	vii
ACKNOWLEDGEMENT	viii
TABLE OF CONTENT	x
LIST OF APPENDICES.....	xiii
 CHAPTER I. INTRODUCTION	
A. Background of The Study.....	1
B. Formulation of the Study	5
C. Objective of The Study	5
D. Significance of The Study	5
E. Hypothesis of The Study	6
 CHAPTER II. LITERATURE REVIEW	
A. Vocabulary	7
B. Vocabulary In Education	9
C. Media In Language Learning	11
D. Duolingo Application	13
E. Previous Related Studies.....	16

CHAPTER III. RESEARCH METHODOLOGY

A. Method and Research Design	19
B. Population and Sample	19
1. Population	19
2. Sample	20
C. Technique for Collecting Data	21
D. Techniques for Analyzing the Data	21
1. The Percentage Analysis.....	21
2. The Conversion of Percentnge Range	22
3. Normality Test	22
4. Distribution of Frequency Data	23
5. Paired Sample t-test	23
6. Independent Sample t-test	23

CHAPTER IV. FINDINGS AND INTERPRETATION

A. Findings of the Study.....	24
1. The Students' Score Pre-test and Post-test in Control Class.....	24
2. The Students' Score Pre-test and Post-test in Experiment Class.....	26
3. The Result of Students Pre-test and Post-test in Control Class.....	28
4. The Result of Students Pre-test and Post-test Experiment Class.....	31
5. The Result of Normality and Homogeneity of Pre-test and Post-test Control and Experiment Class.....	33
6. The Differences Between Pre-test and Post-test of Control Class.....	36

7. The Differences Between Pre-test and Post-test in Experimental Class	38
8. The Result of Independent Sample t-test of Experimental Class and Control Class.....	39
B. Interpretation	41
CHAPTER V. CONCLUSION AND SUGGESTION	
A. Conclusion	43
B. Suggestion	43
REFERENCES	45
APPENDICES	

LIST OF APPENDICES

APPENDICES

1. Surat Tugas Pembimbing Proposal Skripsi
2. Undangan Ujian Seminar Proposal
3. Daftar Hadir Dosen Penguji Seminar Proposal
4. Daftar Hadir Simulasi Proposal Mahasiswa
5. Bukti Telah Perbaiki Seminar Proposal Skripsi
6. Surat Usul Judul dan Pembimbing Skripsi
7. Surat Keputusan (SK) Dosen Pembimbing
8. Kartu Laporan Kemajuan Bimbingan Skripsi
9. Surat Permohonan Riset
10. Surat Izin Penelitian
11. Surat keterangan telah selesai melaksanakan penelitian
12. Surat permohonan ujian skripsi
13. Surat Persetujuan Ujian Skripsi
14. Undangan Ujian Skripsi
15. Daftar Hadir Dosen Penguji Skripsi
16. Bukti Perbaikan Skripsi Hasil Ujian
17. Documentation.....
18. Biography.....

CHAPTER I

INTRODUCTION

This chapter presents : (A) the background of the research (B) the formulation of the problems (C) the objective of the research (D) the significance of the study (E) hypothesis .

A. Background

English is as a foreign language consists of four skills namely, listening, speaking, reading, and writing. Gumartifa (2021) said, these skills have a particular issue that happens differently for each student. For this reason, it's not easy to understand and master the four language skills effectively. Several issues need to overcome first to increase the effectiveness of each ability. According to Cahyono and Widiati (2008), talking about language or language learning, students always think of vocabulary development by learning the "words". In addition the grammar and pronunciation is one of language elements considered necessary for language mastery. Vocabulary is the basic knowledge and very important for the learners in their lives as well as that they can communicate well. Students learn language without knowing many vocabulary so they will not be able to communicate well and difficult to understand.

Mofareh (2015), vocabulary learning is an essential part in foreign language learning as the meanings of new words are very often emphasized, whether in books or in classrooms. Mastering vocabulary is not easy, moreover other aspects of the language are considered such as; sound, and structure (Schmitt, 2000, p.1). According to Harmer, when the grammar or the structure of one language plays role to build up the skeleton of language, then it is vocabulary be the component that provide the vital organ and the flesh."From this statement, we can conclude that vocabulary is the one item that has to be mastered in learning English, because as one of the language components, learning the vocabulary is necessary because more words students know, the better chance to understand. The aim of mastering vocabulary is that students are able to acquire language comprehension well. With enhanced vocabulary, students grow in skills of verbal fluency, writing, and comprehension (Willis, 2010).

Acknowledging the importance of vocabulary through language learning, Thornbury (2012) stated that without mastering grammar, there is only a small portion of language that can be acquired, but without vocabulary, there is nothing we can convey. Thornbury (2012, p. 13), means that vocabulary is the basic of language and must be mastered first. The size of vocabularies that the students need is about 2000 words. It means after several years of learning English language, the students needed to master about 2000 words to be able to communicate with people. According to Mofareh (2015), considering the importance of the role of vocabulary mastery, especially for EFL students, the teacher should find method, technique, and media that can help the students to learn vocabulary.

In Indonesia the Ministry of Education and Culture, has made many efforts to make students familiar with English language because English is considered as the foreign language. English is officially taught in Senior high school especially in the tenth grade. Students are required to understand English text whether in written or in spoken form. According to Tozcu and Coady (2004), the problem in learning English for the students is that they are lack of vocabulary. It was based on the observation at the school, there are some reasons that learning vocabulary is difficult. Many students spend their time to learn new vocabulary, but they still complain that it is not easy to remember the English words and there is no way to avoid forgetting. It means that the students will not be able to speak, to read, to write even to listen in English. In other words, mastering the right method and technique in vocabulary learning is crucial for successful learning of the English language (Xue, 2017, p. 12).

Susanto (2021), many students spend their time learning new vocabulary. There are several factors that cause students' difficulties in learning vocabulary, namely the written form is different from the oral form in English, the number of words that students need to learn is very large, the limited source of information about words, the complexity of the word knowledge. In other words, mastering the appropriate methods and techniques in learning vocabulary is very important for the success of learning English. However, in term of learning English many students sometimes are not interested in a delivered material and still confused to learn English. It is caused by traditional learning methods, that is teacher which is not support the students to practice in the class actively (Richards, 2002, p. 298).

It means that students can not to express their feeling in English directly, and it is the main problems faced by students in the class. Therefore, the teacher should be creative to decide an appropriate strategy that helps students to develop their vocabulary knowledge .

Clark and Megan (2013, p. 2) state that technology has developed rapidly, thus technology has become a necessary in various aspects. It means technology can make students easier for our needs, especially to offer the opportunity and to support the students to improve the quality of language learning. Technology can be used as an engaging, supplementary tool to foster vocabulary learning for ELLs. The technology certainly has a positive and also a negative impact. Therefore, many students do not understand the benefits of technology. According to Ericsson (2009), some students use technology or smartphone just for pleasure especially playing the game. Broadly speaking, the function of teachers is to help students learn by imparting knowledge to them and by setting up a situation in which students can and will learn effectively. Thus, is needed for teachers to solve this problem and also become a challenge of how to use the technology of smartphone properly and beneficial in order to achieve the maximum result (Dewey, 2009).

According to Gumartifa (2020), the technology of information and communication (ICT) has evolved in the sector of education. Many elements have dramatically changed exponentially over the past three decades. It can modify and simplify the development of learning activities. According to Izzan (2010), technologies overcome some difficulties in English language learning such as videos, podcasts, worksheets, e-learning, apps, and websites, as well as other technology tools are very useful. The teachers should have teaching technique and media then students enjoy the learning English activities especially in mastering vocabulary. The media are commonly used as an additional support in teachercentered teaching. The media that can be applied in teaching vocabulary is by using Duolingo application. It is an educational mobile application that consists of many skills such as vocabulary, reading, writing, listening, grammar, and also speaking (Russell & Cieslik, 2012).

Fauzi (2018) was the student from State Islamic University Antasari Banjarmasin. In his research about “The Effectiveness of Duolingo in Improving Vocabulary Ability”. Amin (2019) was the student from State Islamic Institute Tulung Agung. In her research about “The Effectiveness of Duolingo on Students’ Vocabulary Mastery”. The research have similarities and differences in their research results.

In his study have similarities stated that Duolingo is a useful language application that can provide learners with practical and systematic steps to learn a new language on their own. It means that Duolingo application can provides the opportunity to the students to expand their vocabulary knowledge. Meanwhile, The differences in their research results. In Fauzi’ research (2018), Duolingo application was used to improving vocabulary ability at sixth grade of Elementary School. While, in Amin’s research (2019), they used Duolingo to improve vocabulary ability at seventh grade of Islamic Junior High School. So, the writer in this research used Duolingo to develop students’ vocabulary knowledge at seventh grade students of junior high school. Even though there are some differences described above, but this research and those researches have same the variable that is Duolingo.

From the two research, the researcher can conclude that for the first his research result stated that using Duolingo application is more effective than not using Duolingo application. While, the second research stated that Duolingo application is more effective and interesting than the conventional teaching in teaching English about vocabulary to the students.

Based on the explanation above, the researcher would like to apply the Duolingo application that may help students to increases their vocabulary and also would like to investigate the using of Duolingo Application in teaching vocabulary to increases students’ vocabulary at the seventh grade of SMP YWKA Palembang Year 2022.

B. Formulation of the Problems

The research was formulated in the following question :

Is it effective to use Duolingo Application in increasing students’ vocabulary at the seventh grade students of SMP YWKA Palembang ?

C. The Objective of the Research

The objective of the research was to find out whether or not it is effective to use Duolingo Application to increase students' vocabulary in the seventh grade of SMP YWKA Palembang.

D. The Significance of the Study

In learning English, vocabulary is highly important for students in their lives well as that they can communicate well. This issue makes the students need to practice that is capable of helping them to enrich vocabulary knowledge. By knowing their vocabulary knowledge, then they are expected to master their vocabulary successfully. Therefore, this study will be useful:

1. For the teachers, to give an alternative way to enrich their vocabulary knowledge in the learning process.
2. For the learners, to increase the motivation of the learner and provide more attractive learning environments, and it can also be used to develop their skills in English because it will give positive effect to learners a lot of new experiences to be a good English.
3. For the researchers, the results of this study are expected to expand new insight in conducting research about Duolingo application in teaching and learning vocabulary.

E. Hypothesis

According to the Fraenkel and Wallen (2012) hypothesis simply put a prediction of the possible outcomes of a study, (p.45). the writer purposes two hypothesis in this research. They are alternative hypothesis (H_a) and the null hypothesis (H_0).

(H_0) : The null hypothesis : it is not effective to use Duolingo Application in creasing students' vocabulary at the seventh grade students of SMP YWKA Palembang .

(H_a) : It is effective to to use Duolingo Application in creasing students' vocabulary at the seventh grade students of SMP YWKA Palembang .

REFERENCES

- Ahsan Akhtar, Rafaqat Ali,(2001) "Use of Media for Effective Instruction its Importance: Some Consideration", *Journal of Elementary Education*.
- Alqahtani, Mofareh.,(2015.) "The Importance of Vocabulary in Language Learning and How to be Taught" *International Journal of Teaching and Education*.
- Alan Pritchard (2008). *Ways of Learning* (London: Routledge).
- A. S Hornby (2000). *Oxford Advanced Learner's Dictionary* (Oxford University Press,).
- A.M. Zainuri,(2003) *English Vocabulary 1* (Fakultas Ilmu Tarbiyah dan Keguruan, Universitas Islam Negeri Syarif Hidayatullah Jakarta,).
- Anding (2019). *Peningkatan Kosakata Bahasa Jerman Melalui Penggunaan Media Cerita Pendek*. *Interference: journal of langugae , Literature, and Liguistics*, 2(1), 57-63.
- Apushkinskaya, D. dan Nazarov, Al (2018)'Vladimir Ivanovich Smirnov (1887-1974)', 63 (7-8), him. 897-906.doi:10.1080/17476933.2017. 1391800.
- Bambang Y. Cahyono & Utami Widiati., (2008). "The Teaching of EFL Vocabulary in the Indonesian Context: The State of the Art". *TEFLIN Journal*.
- Clark, Megan, (2013) "The Use of Technology to Support Vocabulary Development of English Language Learners" Thesis (St. John Fisher College,).
- Daniel Muijs(2004) *Doing Quantitative Research in Education with*, (London: SAGE Publications,).
- De Castro , A. P ., da Hora Macedo, S., & Pinto Bastos, H. P. (2016). *Duolingo: An experience in English Teaching* . *Journal of Educational & Instructional Studies in the World*, 6(4).
- Douglas Fisher,(2005)"*Vocabulary and Background Knowledge: Important Factors in Reading Comprehension*, (McGrawHill Education)".
- Elfrieda H. Hiebert.(2005), Michael L. Kamil., *Teaching and Learning Vocabulary (Bringing Research to Practice)* (London: Lawrence Erlbaum Associates).
- Evelyn Hatch and Cheryl Brown, ,(1995) *Vocabulary, Semantics, and Language Education* (Cambridge: Cambridge University Press,).
- Gribbons, Barry (1997), Herman, Joan., "Practical Assessment, Research & Evaluation",*Electronic Journal*,

- Gumartifa, A., & Syahri, I. (2021). *English Speaking Anxiety in Language Learning Classroom. English Language in Focus (ELIF)*, 3(2), 99- 108. <https://doi.org/10.24853/elif.3.2.99-108>.
- Gumartifa, A., & Larasati, F & Aurelia, S, (2020), " A Blended Learning in ICT for Improving English Language Teaching, Vol 3(6).
- Guaquet, Cesar & Castro, Angela Yicely, (2018.) "The Use of Learning Apps as a Didactic Tool for EFL Vocabulary Building". *ERIC Journal*. Vol. 11, No.2;
- Garcia, I. (2013). *Learning a language for free while translating the web. Does Duolingo work?. International Journal of English Linguistics*, 3(1). 19. <https://doi.org/doi:10.5539/ijel.v3n1p19>
- Iwan Falahudin (2014), "Pemanfaatan Media dalam Pembelajaran", *Jurnal Lingkar Widyaiswara*.
- Jack R. Fraenkel, Norman E, (2012). Wallen & Helen H. Hyun, *How to Design and Evaluate Research in Education*, (McGraw-Hill,).
- Jack C. Richards, (2001). *Curriculum Development in Language Teaching* (Cambridge University Press,).
- Jascova, V. (2014). *Duolingo as a new language-learning website and its contribution to e-learning education : diploma thesis. Masaryk University*.
- Judy Willis, M.D, *Teaching the Brain to Read; Strategies for Improving Fluency, Vocabulary, and Comprehension* (Virginia USA: ASCD).
- Kamus Besar Bahasa Indonesia (2008)*, (Jakarta: Pusat Bahasa,)
- Mauricio, Natanael & Gioanni, Bayron, (2017), "Duolingo: An Useful Complementary Mobile Tool to Improve English as a Foreign Language Learning and Teaching" Thesis (Universidad Nacional Abierta y a Distancia, Colombia).
- Mofareh Alqahtani (2015), *The Importance of Vocabulary in Language Learning and How to be Taught*, *International Journal of Teaching and Education*.
- Munday, Pilar, "The Case for Using Duolingo as Part of the Language Classroom Experience". *AIESAD Journal*, Vol. 19: 1, 2016, pp 83-101

Nafis Amin, Sausan.,(2019), *“The Effectiveness of Duolingo on Students’ Vocabulary Mastery at the Seventh Grade of MTsN 3 Tulungagung” Thesis (Tulungagung State Islamic Institute).*

Nushi, Musa & Egbali M. Hosein., *“Duolingo: A Mobile Application to Assist Second Language Learning” ERIC Journal, Vol. 89-98*

Ridha Fauzi, Ahmad.,(2018), *“The Effectiveness of Duolingo in Improving Vocabulary Ability at the Sixth Grade of MI Darul Ilmi Banjarbaru School Year 2017/2018” Thesis (Banjarmasin: Antasari State Islamic University).*

Scott Thornbury (2002), *How to Teach Vocabulary, (Middlesex: Longman, Pearson Education).*

Shi, Xue.,(2017), *“Application of Multimedia Technology in Vocabulary Learning for Engineering Students” iJET Journal. Vol 12, No 1.*

Tarigan, H. G (2011). *Pengajaran Kosakata (Edisi Revisi). Angkasa .*

Teske, Kaitlyn,(2017), *“Duolingo”. Computer Assisted Language Instruction Consortium Journal. Vol 34.3, 2017, pp. 393-401.*

Tozcu, A and J. Coady. (2004). *Succesfull Learning of Frequent Vocabulary through CALL also Benefits Reading Comprehension and Speed.*

Vesselinov , R ., & Grego, J. (2012). *Duolingo Effectiveness Study. Final Report City University of New York, 28 (1-25).*

<https://www.haruspintar.com/jenis-jenis-media-pembelajaran/>

<https://www.britannica.com/topic/teaching/functions-and-roles-of-teachers>

<https://journal.unnes.ac.id/sju/index.php/elt/article/download/4023/3651/>

<https://www.readingrockets.org/article/teaching-vocabulary>

<https://textinspector.com/bocabulary-in-language-learning/>