



**IMPROVING STUDENTS' ENGLISH VOCABULARY THROUGH
DUOLINGO APPLICATION AT EIGHTH GRADE
OF MTS GUPPI PANGKATAN**

THESIS

*Submitted to Faculty of Tarbiyah Science and Teacher Training UIN-SU
Medan as a Partial Fulfillment of the Requirements for the Degree of
Educational Bachelor S.1. Program*

By:

ISMASIAH HARAHAHAP

34.14.4.024

**DEPARTMENT OF ENGLISH EDUCATION
FACULTY OF TARBIYAH SCIENCE AND TEACHER TRAINING
STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA**

MEDAN

2018



**IMPROVING STUDENTS' ENGLISH VOCABULARY THROUGH
DUOLINGO APPLICATION AT EIGHTH GRADE
OF MTS GUPPI PANGKATAN**

THESIS

*Submitted to the Faculty of Tarbiyah and Teachers Training State Islamic
University of North Sumatera Medan as Partial Fulfillment of the
Requirements for the Degree of Educational Bachelor S1 Program*

By

Ismasiah Harahap
(34.14.4.024)

ADVISOR I

Dra. Retno Savekti, M.Lis
NIP.19691228 19503 2 002

ADVISOR II

Marvati Salmiah, S.Pd., M.Hum
NIP.19820501 200901 2 012

DEPARTMENT OF ENGLISH EDUCATION

FACULTY OF TARBIYAH AND TEACHERS TRAINING

STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA

MEDAN

2018



KEMENTERIAN AGAMA
UNIVERSITAS ISLAM NEGERI SUMATERA UTARA
FAKULTAS ILMU TARBIYAH DAN KEGURUAN
Jl. Williem Iskandar Psr. V Medan Estate 20371 Telp. 6622925, Fax. 6615683






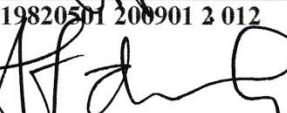
SURAT PENGESAHAN

Skripsi yang berjudul : **“Improving Students’ English Vocabulary Through Duolingo Application At Eighth Grade Of MTs Guppi Pangkatan**, yang telah dimunaqasyahkan dalam sidang munaqasyah Sarjana Strata Satu (S1) Fakultas Ilmu Tarbiyah dan Keguruan Universitas Islam Negeri Sumatera Utara Medan pada tanggal :

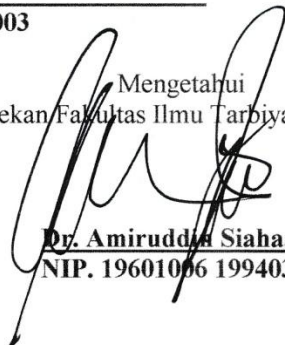
20 Juli 2018
7 Dzulkaidah 1439 H

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.

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

 Ketua	 Sekretaris
<u>Dr. Sholihatul Hamidah Daulay, M.Hum</u> NIP. 19750622 200312 2 002	<u>Marvati Salmiah, S.Pd., M.Hum</u> NIP. 19820501 200901 2 012
 Anggota Penguji	
1. <u>Dr. Sholihatul Hamidah Daulay, M.Hum</u> NIP. 19750622 200312 2 002	2. <u>Marvati Salmiah, S.Pd., M.Hum</u> NIP. 19820501 200901 2 012
	
3. <u>Siti Ismahani, M.Hum</u> NIP. 19690503 199903 2 003	4. <u>Dr. Abdillah M.Pd</u> NIP. 19680805 199703 1 002

Mengetahui
Dekan Fakultas Ilmu Tarbiyah dan Keguruan


Dr. Amiruddin Siahaan, M.Pd
NIP. 19601006 199403 1 002

Nomor : Istimewa
Lamp : 6 (Enam) sks
Prihal : Skripsi

a.n **Ismasiah Harahap**

Medan, 20 Juli 2018
Kepada Yth;
Bapak Dekan Fakultas Tarbiyah
UIN-SU
di –
Tempat

Assalamualaikum Wr.Wb

Setelah membaca, meneliti, dan memberikan saran-saran perbaikan
seperlunya terhadap skripsi mahasiswi :

Nama : Ismasiah Harahap

NIM : 34.14.4.024

Jur / Prodi : Pendidikan Bahasa Inggris

**Judul : “Improving Students’ English Vocabulary Through Duolingo
Application At Eighth Grade Of MTs Guppi Pangkatan”**

Maka kami menilai bahwa skripsi ini sudah dapat diterima untuk di
munaqosyahkan dalam sidang munaqosyah skripsi Fakultas Tarbiyah UIN – SU
Medan.

Demikian kami sampaikan, atas perhatian Bapak kami ucapkan terima
kasih.

Advisor I



Dra. Retno Sayekti, M.Lis
NIP. 19691228 19503 2 002

Wassalam,

Advisor II



Marvati Salmiah, S. Pd., M. Hum
NIP. 19820501 200901 2 012

PERNYATAAN KEASLIAN SKRIPSI

Saya yang bertanda tangan di bawah ini :

Nama : Ismasiah Harahap

NIM : 34.14.4.024

Jur / Prodi : Pendidikan Bahasa Inggris

Judul : **“Improving Students’ English Vocabulary Through Duolingo Application At Eighth Grade Of Mts Guppi Pangkatan”**

Menyatakan dengan sebenarnya bahwa skripsi yang saya serahkan ini benar-benar merupakan hasil karya sendiri kecuali kutipan-kutipan dari ringkasan-ringkasan yang semuanya telah saya jelaskan sumbernya.

Apabila di kemudian hari terbukti atau dapat dibuktikan skripsi ini hasil jiplakan, maka gelar ijazah yang diberikan Universitas batal saya terima.

Medan, 2018

Yang Membuat Pernyataan



Ismasiah Harahap
NIM. 34.13.4.024

ABSTRACT

Ismasiah Harahap. Improving Students' English Vocabulary Through Duolingo Application At Eighth Grade Of MTs Guppi Pangkatan

Thesis. Department of English Education. Faculty of Tarbiyah Science and Teachers training. State Islamic University of North Sumatera Medan. 2018

Keywords: vocabulary and duolingo application.

The aim of this research is to find the use of duolingo application in improving students' English vocabulary. In constructing this research, the researcher collected data from the classroom action research, which was carried out through four steps. They were plan, action, observation, and reflection. The subjects of this study were 30 students at eighth grade of MTs Guppi Pangkatan in academic years 2018/2019. In during this research, the technique of analyzing data was applied by using qualitative and quantitative data. The qualitative data was taken from interview, observation sheet, and documentation. The quantitative data was taken from the test. The result of analysis showed that there was development on the students' English vocabulary. It showed from the mean of the pre-test was 48,16, the mean of post-test in first cycle was 72, and the mean of post-test in second cycle was 81. The percentage of the students' score in the pre-test who got 8,0 above were 6 of 30 students (20%), the percentage of the students' score in post-test of the first cycle who got 8,0 above were 15 of 30 students (50%). It means there was an improvement about 30 %. Then, the percentage of the students' score in the post-test of the second cycle who got 8,0 above, there were 22 of 30 students (73,3%). It means that the improvement was about 23,3%. From the data, it indicated that using duolingo application in English vocabulary was effective, and the data above can be concluded that the students' English vocabulary have been improved by using duolingo application as learning media. In addition, the students also looked active and enthusiastic in learning process by using the duolingo as learning media.

ACKNOWLEDGEMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

All praise to Allah, Lord of the worlds, who has given His loving and blessing until the writer can finish her “Thesis”. Peace and gratitude may always be upon the Prophet Muhammad, who has guided all creatures from the darkness to the lightness, from stupidly era to the cleverness within Islamic regional.

This “Thesis” is presented to English Education Department, Faculty of Tarbiyah and Teachers’ Training State Islamic University of North Sumatera Utara as a partial fulfillment of the requirements for the degree of S.Pd.

The researcher is fully aware that this thesis cannot be finished without other people’s help. Therefore, in this opportunity she would like to express her deep gratitude to the following people:

1. Prof. Dr. H. Saidurrahman, M.A, the Head of State Islamic University of North Sumatera Medan.
2. Dr. Amiruddin Siahaan, M.Pd, the Dean of Tarbiyah Science and Teacher Training State Islamic University of North Sumatera Medan. Dr. Sholihatul Hamidah Daulay, S.Ag. M.Hum, the Head of English Education Department
3. Dra. Retno Sayekti, M.Lis., as an advisor I, for her time, valuable guidance, helps, correction, suggestion, and kindness during completing this “thesis”.
4. Maryati Salmiah, M.Hum., as an advisor II, for his time, valuable guidance, helps, correction, suggestion, and kindness during completing this “thesis”.
5. All lecturers of The Department of English Education who always give their motivation and valuable knowledge and also unforgettable experience during her study at Faculty of Tarbiyah and Teachers Training of State Islamic University of North Sumatera Utara.
6. The writer’s beloved parents, (Ahmad Tampil Hrp and Alm.Asfah), let me say to the world, how lucky I am for being your little girl. And also my beloved brothers and sisters, (Ahmad Rosyid Hrp, Juliah, Zunida, Abdul

Haris, Dewi Annisa), and my beloved bou (Marhani Harahap) who have given the greatest love, prayer, kindness, and everything to support me.

7. The writer's beloved housemates, (Pebri Ramdhani, Dini Suhandriani, Nurul Masitah), who have accompany me in my daily life, given love, happiness, kindness, and life stories in my every single day.
8. The writer's beloved special brother, (Abdul Gani Nasution) for all of the kindness, friendship, happiness, prayer, help, support, love, and patient to face my under pressure during completed this thesis.
9. The writer's beloved cousins, (Sahril Syahputra, Abdul Rahman NST), who have been my greatest cousins also supporters.
10. The writer's best friends,(Fitri Randia Ningsih, Nursyahdiyah,Ernis Elia, Hestu, Kalsum,Yusneni) for all of friendship, kindness, help, love, and support me.
11. The English Teacher of MTsN Kabanjahe (Juliah Harahap, S.Pd, Elfidiani,S.Pd, Wahhidin, S.Pd) for the caring, helping, and supporting.
12. Everyone who has helped her in finishing the *skripsi* and whose names cannot be mentioned one by one.

Finally, the writer realizes that this thesis is still far from being perfect.

Therefore, constructive suggestion is needed for the progress of the next study.

The writer hopes that this research will give an important contribution to the Department of English Education. May God always bless us and lead us in His right path. Amin.

Medan, March 2018

Ismasiah Harahap

TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGEMENT.....	ii
TABLE CONTENTS.....	iii
LIST OF TABLES.....	vii
LIST OF FIGURES	viii
LIST OF APPENDICES.....	ix

CHAPTER I: INTRODUCTION

A. Background of the Study	1
B. Statement of Research	4
C. Research Questions	4
D. Objective of the Study	4
E. Significances of the Study	5
F. Limitation of the Study.....	6

CHAPTER II: REVIEW OF LITERATURE

A. Theoretical Framework.....	7
1. Application of Technology As Media Teaching.....	7
a. Definition of Technology and Media	7
b. Application of Technology as Media Teaching	8
a. Electronic Learning (E-Learning)	8
1. Definition of E-Learning.....	8
2. Types of E-learning.....	10
3. The Use of E-Learning in Education	12
4. Advantages and Disadvantage of adopting E-Learning	12
b. Mobile Learning (M-Learning).....	16
1. Definition of M- Learning.....	16
2. Design of Mobile Learning	17
2. CALL (Computer Assisted Language Learning).....	20

3. Duolingo	22
a. Definition of Duolingo	22
b. The Primary of Duolingo	23
c. The founder's of duolingo	24
d. Educator's Area in Duolingo	29
e. Duolingo as an education for online and face to face course	30
f. Translation resulting from duolingo	31
g. The available of language	32
h. Methodical aspect	33
i. Gradual Progress	33
j. Learning Vocabulary	34
k. Speaking , Listening, and Pronunciation	34
l. Monitoring progress	34
m. The Skill Page.....	35
n. Motivation	35
o. Description of duolingo on mobile phone	37
p. Duolingo keeps education free with ap-mob native ads.....	43
q. Duolingo as a Gamified Multiplatform.....	44
4. Vocabulary	46
a. Definition of Vocabulary	46
b. Kinds of Vocabulary	47
a. Receptive Vocabulary	48
b. Productive Vocabulary	48
c. Vocabulary in Foreign Language	49
d. Teaching and Learning English Vocabulary	49
B. Related Study	49
C. Conceptual Framework.....	50
CHAPTER III : METHODOLOGY OF RESEARCH	
A. Reseach Design	53
B. Researh Setting And Subject.....	54
C. Data Collection.....	54
1. Observation	55

2. Interview	55
3. Test.....	54
D. Data Analysis	56
E. Research Procedure.....	58
F. Trustworthiness	61
CHAPTER IV: FINDINGS AND DISCUSSIONS	
1. The Data.....	63
2. The Quantitative Data	64
3. The Qualitative Data	74
A. Observation	74
B. Interview.....	74
C. Documentation	75
1. Findings	75
a. Cycle I.....	75
1. Planning	75
2. Action	76
3. Observation	77
4. Reflection	77
b. Cycle II	78
1. Planning	79
2. Action	79
3. Observation	80
4. Reflection	80
D. Research Findings	81
E. Discussion	82
CHAPTER V: CONCLUSIONS AND SUGGESTIONS	
A. Conclusions	85
B. Suggestions	86
REFERENCES	87
APPENDICES	

LIST OF TABLE

I.	Table 4.1 The Students' Score in the Pre-Test	64
II.	Table 4.2 The Percentage of The Students' Score in Pre- Test	66
III.	Table 4.3 The Students' Score in the Post-Test I	66
IV.	Table 4.4 The Percentage of The Students' Score in Post-Test I	68
V.	Table 4.5 The students' Score in The Post-Test II	69
VI.	Table 4.6 The Percentage of The Students' Score in Post-Test II.....	70
VII.	Table 4.7.The Students' Score in Three of Vocabulary test	71
VIII.	Table 4.8 The Mean Score of Pre-test, Post-Test I and Post-test II...	62
IX.	Table 4.9 The Percentage of Students' who got score over 80	73

LIST OF FIGURES

I.	Figure 2.1 screen shoot of duolingo setting	38
II.	Figure 2.2 translation exercise of duolingo	39
III.	Figure 2.3 match exercise of duolingo	39
IV.	Figure 2.4 pairing exercise of duolingo	40
V.	Figure 2.5 listening exercise of duolingo	40
VI.	Figure 2.6 speaking exercise of duolingo	40
VII.	Figure 2.7 screen shoot after complete exercise of duolingo	41
VIII.	Figure 2.8 schema of conceptual framework.....	52
IX.	Figure 3.1 schema of cycle 1-2.....	53

LIST OF APPENDICES

I.	Appendix I (Lesson Plan Cycle 1).....	90
II.	Appendix II (Lesson Plan in Cycle 2)	96
III.	Appendix III (The Question of Pre-Test)	102
IV.	Appendix IV (The Question of Post-Test 1).....	106
V.	Appendix V (The Question of Post-Test 2	109
VI.	Appendix VI (Interview to The Teacher)	112
VII.	Appendix VII (Interview to The Students)	114
VIII.	Appendix VIII (Observation Sheet cycle I).....	116
IX.	Appendix IX (Observation Sheet cycle II)	118
X.	Appendix X (The Schedule of Research)	120
XI.	Appendix XI (List of Students Initial Name)	122
XII.	Appendix XII (The Students Attendance List)	123
XIII.	Appendix XIII (The Result of Students Score in Three Vocabulary Test) ...	124
XIV.	Appendix XIV (photo of Documentation).....	125

CHAPTER I

INTRODUCTION

A. Background of the Study

English plays an important role in the world because it is the most widely spoken language. English is a spoken for most international events and as a medium of information in science, culture, and technology. So we can call that English is the first (international) language. Besides, it must realize that most scientific books are written in English. Accordingly, in order to be able to comprehend the books for getting knowledge, everyone must have adequate basic English and so must the Indonesian students..

English is one of the international languages. Learning English is very important in this globalization era to get involved in the development of scientific and technological information worldwide. Therefore, introducing English as early as possible is necessary. Indonesian government has determined English as the first foreign language that should be taught as one of the subjects studied by the students from elementary up to university level.

The aim of teaching English at elementary school, junior high school, and senior high school is that students are able to achieve four language skills, such as: listening, reading, speaking, and writing. In order to master English, we should master the grammatical rule and vocabulary. If vocabulary is mastered, it will be easier to master English.

Vocabulary is the most important material in foreign language teaching for young learners. Therefore, the teaching of English vocabulary has a very essential role in enabling Indonesian students to master English as their foreign language.

English vocabulary mastery, in fact has become a big problem for most Indonesian students. If one does not have sufficient number of vocabulary, he will not be able to communicate with his surroundings.

Vocabulary is core component of language proficiency and provides much of the basic for how learners speak, listen, write and read. Without an extensive vocabulary and strategies for acquiring vocabulary, learners often achieve less than their potential and may be discouraged from making use of language learning opportunities around them such as listening to the radio, listening to native speakers, using language in different context, reading or watching television.¹

The teacher should provide the interesting media in order to develop the students' activity in learning vocabulary. One of the media in teaching vocabulary is using application based on CALL (Computer Assisted Language Learning) with learning media that assisted by computer, one of the CALL program is Duolingo Application

Technology has an important role in teaching and learning process. Bajcsy says that technology in teaching and learning is more variety and he suggests that technology can work to help organize and provide the material for students, help students, teachers, and parents interact, anytime and anywhere. Also technology can facilitate and assist in the authentication and prioritization of internet material and simulate, visualize, and interact with scientific structures, processes, and models. For instance, the students are able to find the additional materials from the internet.²

¹ Mc,carten. Jeanne. 2007. *Teaching Vocabulary*. United States of America : Cambridge University Press. P81

² Bajcsy R. 2002. *Technology and Learning*. Washington DC: Department of Commerce. P81

One of the application of technologies that popular in learning English is Duolingo. Duolingo is a free language-learning platform that includes a language learning website and application, as well as a digital language proficiency assessment exam. “ Duolingo uses a heavily data driven approach to education. At each step along the way, the system measures which questions the users struggle with and what sorts of mistakes they make. It then aggregates those data and learns from the patterns it recognizes.

Duolingo provides written lessons and dictation, with speaking practice for more advanced users can progress through and a vocabulary section where learned words can be practiced.³

Practices are important to enable students to master English skills, and exercise is very important since it is made as a tool for measuring and evaluating student’s ability in achieving the material which is given. When doing exercises someone should examine whether the exercises are relevant or not. The researcher focuses on the exercises of vocabulary presented in Duolingo Free Language Learning Application.

Duolingo Free Language Learning Application can be downloaded on the Phone or PC, so the user can practice anytime. Especially for English young learners can practice anytime and anywhere. Duolingo has an excellent learning strategy because it has very motivating learning system. It uses a strategy of game mechanics to create the incentive to keep students learning. It is built very similarly to a computer game where the participants have to pass certain levels. A student passes the three level of the language. The following lessons are unlocked

³ Guliani. Parul. 2017. *Duolingo looks to dominate the mobile education market with new flashcard app tinycards*. P1
<http://en.wikipedia.org/wiki/Duolingo>. accessed on March 1

after a learner has mastered the previous material. Users can complete a variety of exercise types including multiple choices, writing and also speaking through a microphone. Duolingo uses mainly drills and repetitive exercises in the lessons.

Based on information obtained from the English teacher at MTs Guppi Pangkatan, it was found that there were many students who had very limited mastery of vocabulary. It was found that most of the students could not answer the question in English. They asked the teacher to translate the question into the Indonesian language. Besides that, the other reason that causes the problem was that the teacher did not use the media in learning vocabulary. The teacher just asked the students to read the material and to find the meaning from the dictionary. It made the students feel bored in learning vocabulary.

B. Identification of the Problems.

The main problem that needs investigations in this study is how to use duolingo application as media in teaching English to improve student's ability in using English vocabulary

C. Research Questions

The researcher formulates the research question as follow:

- 1 How does the teacher implement duolingo application to improve students' ability in using English vocabulary?
- 2 How is students' English vocabulary improving after being taught using duolingo application?

D. Objectives of the Research

The objectives of research are:

1. To describe how the use of duolingo application in teaching vocabulary .
2. To describe the process of the implementation of duolingo application in student's ability in using English vocabulary

E. Significances of the Study

The significance of this study is that it addresses as follow:

1. For the headmaster

The researcher hopes this research can be a consideration for school in teaching and learning, it can be a reference to make the learning activity becomes interesting and effective, and make the improving of quality of teaching on the school especially in teaching English.

2. For the teachers

English teacher can use duolingo application as the media in teaching and learning.

As a consideration and information for English teacher in teaching English subject. In addition, the English teacher is able to use the interesting media that is, effective, efficient and involved students actively in the process of learning English.

3. For the researcher

This research can give advantage and valuable experience in process of looking for knowledge.

4. For another researcher

This research can be useful as the reference and comparison for other researchers who want to conduct a research in the same topic and purpose

F. Limitations of the Study

The researcher limits study about “improving student’s vocabulary through duolingo application in call at tenth grade of MTs Guppi Pangkatan.” The limitation is based on some reason. In this paper, the research focused on studying about applying duolingo application in teaching and learning activity to build up student’s vocabulary mastery, improving students vocabulary through duolingo application,.

This research will be conducted in one class and apply pre-experimental design that one group pretest and posttest.

CHAPTER II

REVIEW OF LITERATURE

In conducting a research, theories are needed to explain some concept or term applied in the research concerned. Some terms are used in this study and they need be theoretically explained.

A. Theoretical Framework

To conduct a research, theories are needed to explain some concepts and terms applied in research concerned. The terms have to classify to avoid confusion. Therefore, the classification of the concepts will be minimized possible misunderstanding between the writer and reader. In order words, they are very important to be explained, so that the readers will get the point clearly.

1. Definition Technology and Media

Technology according to Hammer and Champy and Liaw et al include service, cost, quality, and speed. It is apparent that e-learning can empower students at higher educational levels to acquire their education in while at the same time perusing their personal objectives as well as maintaining their own careers, with no need to attend be subjected to rigid schedule.⁴

While according to Oemar Hamalik in Fatah Syukurs" book, Described "the Media as a technique used in order more streamline communication between teacher and student in the process of education and teaching in school ". media is

⁴ JuhadiI, N., Samah, A & Sarah, H. 2013. Use of Technology, Job Characteristics and work outcomes: A case of Unitary Instructors. *International Review of business Research papers*. P. 184-203.

“A medium (plural media) is a channel of communication, example include film, television, diagram, printed materials, computers, and instructors.⁵

And somewhat different limitations given by the NEA (National Education Association) argued that the media was all manipulated objects, views, heard, read or spoken with the instruments used for teaching and learning activities. According to Heinich, Molenda, Russel media is “A medium (plural media) is a channel of communication, example include film, television, diagram, printed materials, computers, and instructors.⁶

The use of technology is an essential part to support the process of teaching and learning in order to make it more interesting. So far, video, cassette, and power point presentation are used in teaching learning processes. In addition, it will be one of the teaching and learning instructional that is used either in the class or outside the class.

There are two kinds of technology as teaching media:

a. Electronic Learning

The Internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information. Technology-based e-learning encompasses the use of the internet and other important technologies to produce materials for learning, teach learners, and also regulate courses in an organization. E-learning as a concept covers a range of applications, learning methods and processes.

E-learning refers to the use of information and communication technologies to enable the access to online learning/teaching resources. In its

⁵ Fatah Syukur, 2005, *Teknologi Pendidikan*, Semarang: Rasail, P.125

⁶ Asnawir Dan M. Basyirudin Usman. 2002. *Media Pembelajaran*. Jakarta: Ciputan Press. P.11

broadest sense, Abbad defined Elearning is mean any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies. This definition is further narrowed by some researchers as any learning that is internet-enabled or web-based.⁷

According to Maltz , the term ‘e-learning’ is applied in different perspectives, including distributed learning, online-distance learning, as well as hybrid learning, and he defined as the use of information and communication technologies in diverse processes of education to support and enhance learning in institutions of higher education, and includes the usage of information and communication technology as a complement to traditional classrooms, online learning or mixing the two modes.⁸

That mean also referred to the term as the use of computer network technology, principally through the internet, to provide information and instruction to individuals.

Liaw and Huang defined e-learning based on the summaries of its characteristics. In the first place, they propose a multimedia environment. Secondly, they incorporate several kinds of information. Thirdly e-learning systems support collaborative communication, whereby users have total control over their own situations of learning. In the fourth place, e-learning support

⁷ Abbad, M. M., Morris, D., & de Nahlik, C. 2012. Looking under the Bonnet: Factors Affecting Student Adoption of E-Learning Systems in Jordan. *The International Review of Research in Open and Distance Learning*. Vol. 2. No. 12 .P.25

⁸ Maltz, L., Deblois, P. & The Educause Current Issues Committee. 2005. Top Ten It Issues. *Educause Review*. Vol. 40. No. 1. P. 15-28.

networks for accessing information. And fifth, e-learning allows for the systems to be implemented freely on various kinds of computer operating systems.⁹

1. Types of E-Learning

There are diverse ways of classifying the types of e-learning. According to Algahtani, there have been some classifications based on the extent of their engagement in education. Some classifications are also based on the timing of interaction. Algahtani divided e-learning into two basic types, consisting of computer-based and the internet based e-learning.¹⁰

He also explains the computer-based learning comprises the use of a full range of hardware and software generally that are available for the use of Information and Communication Technology and also each component can be used in either of two ways: computermanaged instruction and computer-assisted-learning. In computer assisted- learning, to him, computers are used instead of the traditional methods by providing interactive software as a support tool within the class or as a tool for self-learning outside the class. In the computer-managedinstruction, however, computers are employed for the purpose of storing and retrieving information to aid in the management of education.

According to Almosa the internet-based learningis a further improvement of the computer-based learning, and it makes the content available on the internet, with the readiness of links to related knowledge sources, for examples e-mail services and references which could be used by learners at any time and place as

⁹ Liaw, S.S., Huang, H.M. 2011. Exploring the World Wide Web for on-line learning: a perspective from Taiwan. *Educational Technology* . Vol. 3. No. 2.P. 27–32.

¹⁰ Algahtani, A.F. 2011. *Evaluating the Effectiveness of the E-learning Experience in Some Universities in Saudi Arabia from Male Students' Perceptions*, Durham: DurhamUniversity.P. 27

well as the availability or absence of teachers or instructors.¹¹ Zeitoun classified this by the extent of such features use in education, mixed or blended more, assistant mode, and completely online mode. The assistant mode supplements the traditional method as needed. Mixed or blended mode offers a short-term degree for a partly traditional method. The completely online mode, which is the most complete improvement, involves the exclusive use of the network for learning.¹²

Algahtani described the completely online mode as “synchronous” or “asynchronous” by the application of applying optional timing of interaction. The synchronous timing comprises alternate on-line access between teachers or instructors and learners, or between learners, and the asynchronous, to him allows all participants to post communications to any other participant over the internet.¹³

The asynchronous mode also allows learners to discuss with the instructors or teachers as well as among themselves over the internet at different times. It is therefore not interaction at the same moment but later, with the use of tools such as thread discussion and emails, with an advantage that learners are able to learn at a time that suits them whilst a disadvantage is that the learners will not be able to receive instant feedback from instructors as well as their colleague learners.

2. The Use of E-Learning in Education

The development of multimedia and information technologies, as well as the use internet as a new technique of teaching, has made radical changes in the traditional process of teaching .

¹¹ Almosa, A. 2002. *Use of Computer in Education*. Riyadh: Future Education Library.P.67

¹² Zeitoun, H. 2008. *E-learning: Concept, Issues, Application, Evaluation*, Riyadh: Dar Alsolateah publication. P. 15

¹³ Algahtani,A,F. *Op. Cit.* P. 40

The “adjunct e-Learning is the situation which e-Learning is employed as an assistant in the traditional classroom providing relative independence to the learners or students. In the blended e-Learning, Zeitoun explained that, in this way of using e-Learning, the delivery of course materials and explanations is shared between traditional learning method and e-learning method in the classroom setting. The third one which is the online is devoid of the traditional learning participation or classroom participation. In this form of usage, the e- Learning is total so that there is maximum independence of the learners or students , Zeitoun has gone further to explain that the online model is divided into the individual and collaborative learning, where the collaborative learning also consist of the synchronous and asynchronous learning.¹⁴

3. Advantages and Disadvantages of Adopting E-Learning

The adoption of E-learning in education, especially for higher educational institutions has several benefits, and given its several advantages and benefits, e-learning is considered among the best methods of education. Several studies and authors have provided benefits and advantages derived from the adoption of e-learning technologies into schools.¹⁵

Some studies give advantage of e-learning as its ability to focus on the needs of individual learners. For example in his book review on e-learning strategies for delivering knowledge in digital age noted that one of the advantages of e-learning in education is its focus on the needs of individual learners as an important factor in the process of education rather than on the instructors’, or educational institutions’ needs. Some of the advantages that the adoption of

¹⁴ Zeitoun. *Op. Cit.* P. 27

¹⁵ Algahtani. *Op. Cit.* P. 50

elearning in education, obtained from review of literature includes the following:¹⁶

1. It is flexible when issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. The adoption of e-learning provides the institutions as well as their students or learners the much flexibility of time and place of delivery or receipt of according to learning information.
2. E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.
3. It is able to provide opportunities for relations between learners by the use of discussion forums. Through this, e-learning helps eliminate barriers that have the potential of hindering participation including the fear of talking to other learners. E-learning motivates students to interact with other, as well as exchange and respect different point of views. E-learning eases communication and also improves the relationships that sustain learning, that e-Learning makes available extra prospects for interactivity between students and teachers during content delivery.
4. E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is also cost effective in the sense that it offers opportunities for learning for maximum number of learners with no need for many buildings.

¹⁶ Marc, J. R. 2002. *Book review: e-learning strategies for delivering knowledge in the digital age. Internet and Higher Education*. Cambridge: Cambridge University. P. 185-188.

5. E-learning always takes into consideration the individual learners differences. Some learners, for instance prefer to concentrate on certain parts of the course, while others are prepared to review the entire course.
6. E-learning helps compensate for scarcities of academic staff, including instructors oteachers as well as facilitators, lab technicians etc.
7. The use of e-Learning allows self-pacing. For instance the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick.

E-learning, in spite of the advantages that it has when adopted in education, also has some disadvantages. Studies support that e-learning possesses some disadvantages , For example despite the claims that e-Learning can improve the education quality, argue that making learning materials available online results in improved learning results only for specific forms of collective assessment.

According to Almosa , regardless of all the disadvantages of e-learning, there are a lot of benefits which inspire its use and also encourage the search for ways to reduce disadvantages.The disadvantages of e-learning that have been given by studies include the following :¹⁷

1. E-learning as a method of education makes the learners undergo contemplation, remoteness, as well as lack of interaction or relation. It therefore requires a very strong inspiration as well as skills with to the management of time in order to reduce such effects.
2. With respect to clarifications, offer of explanations, as well as interpretations, the e-learning method might be less effective that the

¹⁷ ALMOSA. *Op. Cit.* P. 80

traditional method of learning. The learning process is much easier with the use of the face to face encounter with the instructors or teachers.

3. When it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect. The learners. Though might have an excellent knowledge in academics, they may not possess the needed skills to deliver their acquired knowledge to others.
4. Since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating.
5. E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.
6. E-learning may also deteriorate institutions' role socialization role and also the role of instructors as the directors of the process of education.
7. Also not all fields or discipline can employ the e-learning technique in education. For instance the purely scientific fields that include practical cannot be properly studies through e-learning. Researches have argued that e-learning is more appropriate in social science and humanities than the fields such as medical science and pharmacy, where there is the need to develop practical skills.
8. E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money disadvantages.

b. Mobile Learning

There is little to connect delivery of location-based content on mobile telephones with group learning through handheld computers in the classroom, apart from a reliance on handheld devices, so early definitions of mobile learning were anchored on the use of mobile technology: “It’s elearning through mobile computational devices: Palms, Windows CE machines, even your digital cell phone.”¹⁸

The focus on technology does not assist in understanding the nature of the learning and overlooks the wider context of learning as part of an increasingly mobile lifestyle. While discovering a city during a vacation a tourist might learn from a travel internet site on a home desktop computer, a phone conversation to a friend who visited the city, an in-flight travel magazine and promotional video, a Google map of the city on a mobile phone, an interactive multimedia guide in the tourist information office, printed brochures, and handheld audio-guides in the tourist locations. It is the combined experience that constitutes mobile learning. In trying to unpack the ‘mobile’ in mobile learning one finds:

- a. *Mobility in physical space*: people on the move trying to cram learning into the gaps of daily life or to use those gaps to reflect on what life has taught them. The location may be relevant to the learning, or merely a backdrop.
- b. *Mobility of technology*: portable tools and resources are available to be carried around, conveniently packed into a single lightweight device. It is

¹⁸ Falk, J. H. 2003. Personal meaning mapping. In G. Caban, C. Scott, J. H. Falk & L. D. Dierking (Eds.), *Museums and creativity: A study into the role of museums in design education*. Australia: Powerhouse Publishing. P.10-18

also possible to transfer attention across devices, moving from the laptop to the mobile phone, to the notepad.

- c. *Mobility in conceptual space*: learning topics and themes compete for a person's shifting attention. A typical adult undertakes eight major learning projects a year, as well as numerous learning episodes every day, so attention moves from one conceptual topic to another driven by personal interest, curiosity or commitment.
- d. *Mobility in social space*: learners perform within various social groups, including encounters in the family, office, or classroom context.
- e. *Learning dispersed over time*: learning is a cumulative process involving connections and reinforcement among a variety of learning experiences, across formal and informal learning contexts.

Research into mobile learning is the study of how the mobility of learners augmented by personal and public technology can contribute to the process of gaining new knowledge, skills and experience.

1. Designing of Mobile Learning

A central task in the design of technology for mobile learning is to promote enriching conversations within and across contexts. This involves understanding how to design technologies, media and interactions to support a seamless flow of learning across contexts, and how to integrate mobile technologies within education to enable innovative practices. To this end, much can be learnt from interaction design research, which offers general principles for

human-computer interaction on mobile devices. Furthermore, findings from mobile learning research suggest the need to:¹⁹

- a. Create quick and simple interactions.
- b. Prepare flexible materials that can be accessed across contexts.
- c. Consider special affordances of mobile devices that might add to the learner experience (e.g., the use of audio or user anonymity).
- d. Use mobile technology not only to ‘deliver’ learning but to facilitate it, making use of the facilities in current mobile devices for voice communication, note-taking, photography, and time management. The design of mobile learning activities should be driven by specific learning objectives.

The use of (mobile) technology is not the target but rather a means to enable activities that were otherwise not possible, or to increase the benefits for the learners. Thus, the use of mobile technologies may only be suitable for part of the activity, with other parts being better supported by other technologies, or by no technology at all (as exemplified in our case studies).

A design challenge is to enrich the learning conversations and enhance the learner experience without interfering with it. Attention is a key issue. Having to change the focus of attention from the surrounding world to a handheld device can at best be distracting and at worse dangerous (such as the hazard of walking while gazing at the screen). To counter this, authors report the benefits of short audio

¹⁹ Naismith, L., Sharples, M., & Ting, J. 2005. Evaluation of CAERUS: A context aware mobile guide. In H. van der Merwe & T. Brown (Eds.), *Mobile technology: The future of learning in your hands, mLearn 2005 book of abstracts*. Cape Town, South Africa: mLearn .Vol. 5. No. 2. P.50

presentations to enhance or interpret the surroundings, for instance by telling the story behind a museum exhibit or tourist site.²⁰

Technology is not always used for the activities originally intended. Young people are appropriating technology designed for adult work (e.g., SMS messaging and media file sharing) into their social world. This has deep implications for learning, if we consider, for example, why people would need to memorize facts when they can look them up on Google. What are the implications for copyright, authorship and plagiarism when young people can easily capture, share and publish their own experiences, and those of others, as they go about their daily lives? Until recently, instant messaging, file sharing and social networking have been mainly restricted to home computers and internet cafes, however countries such as South Korea have already adopted mobile networking and the next generation of personal devices will support collaboration and context awareness. An issue for schools is how to accommodate children equipped with powerful personal technologies and new and disruptive skills of informal collaboration and networked learning.

2. CALL (Computer assisted language learning)

Duolingo is one of the media in teaching vocabulary is using application based on CALL (Computer Assisted Language Learning) with learning media that assisted by computer. CALL is another media of learning a language which incorporates computers as a tutor.

²⁰ Bradley, C., Haynes, R., & Boyle, T. 2005. Adult multimedia learning with PDAs - The user experience. In H. van der Merwe & T. Brown (Eds.), *Mobile technology: The future of learning in your hands, mLearn 2005 book of abstracts*. Cape Town, SouthAfrica: M-learn. Vol. 4. No.2.P. 23-27

Behaviouristic CALL is perhaps the most plausible and would attract most agreement. But the other two categories are far less satisfactory. In the first place, language teaching in general still operates today very much within a communicative framework in many teaching contexts, so it is confusing for teachers to hear that 'communicative CALL' is no longer with us the use of the term itself is not helpful. Secondly, it is not at all certain that the term 'communicative' is being used as language teaching methodologists would use it. Warschauer defined, where it is suggested that communicative CALL²¹

- a. focuses more on using forms rather than on the forms themselves.
- b. teaches grammar implicitly rather than explicitly.
- c. allows and encourages students to generate original utterances rather than just manipulate prefabricated language.
- d. does not judge and evaluate everything the students do nor reward them with congratulatory messages, lights, or bells.
- e. avoids telling students they are wrong and is flexible to a variety of student responses.
- f. uses the target language exclusively and creates an environment in which using the target language feels natural, both on and off the screen.
- g. will never try to do anything that a book can do just as well.

Students get to explore the language on their own and learn from their mistakes. This is different from the typical classroom situation where students will be dependent on the teachers. It is apparent that the roles of teachers and students

²¹Chapelle, C. 2001. *Computer Applications in Second Language Acquisition*. Cambridge: Cambridge University Press. P. 36

have changed with the presence of technology assisted learning. One of the CALL program is Duolingo Application. Jaskova defines Duolingo is seen as a future in learning languages and in global communication.

Students work with the program and get a chance to explore all the skills in English. Although the content of the software is not suited to the students' cultural background, it engages students in a very interesting way that can motivate them.

Based on the arguments above, this research is aimed at finding out whether the use of Duolingo Application can improve students' vocabulary achievement. The use of Duolingo application is expected to overcome the problems and it can help students and teachers in the learning process, especially vocabulary. This research is also expected to find out how is the implementation of teaching vocabulary through Duolingo application.

3. Duolingo Application

Duolingo is a free language-learning application. It is designed so that as users progress through the lessons, they simultaneously help to translate different websites and other documents. It was developed to translate the web and as the side effect there are millions of people learning a foreign language. "Duolingo builds a world with free education and no language barriers. Users are able to learn languages for free while simultaneously translating the web".²²

"Duolingo, a free online language learning site, has as its mission to help users to learn a language while simultaneously using their learning exercises to translate the web". Language is learned through translation with, according to

²² Guliani. *Op. Cit.* P. 15

developers, Duolingo being as effective as any of the leading language learning software. For translating the web, machine translation is not good enough and relying only on professional translators, far too expensive. Duolingo, we are told, offers a third way, with translation as a by-product of its language learning. Translation which will be, if as promised, almost as cheap as if done by machines and almost as good as if by professionals. Launched in June 2012, Duolingo boasts already at the time of writing 300,000 active language learners ready for the task. This article independently assesses the extent to which Duolingo, at its current stage of development, meets those expectations”

Perhaps some people already know this application, because it” s very good for its user, if seen in the playstore, number of users, who download this application is already more than 10 milion people, even as many as more than 1 milion people gave arating of five for this application, where the number of five rating is a perfect rating on playstore. Furthermore, in the application contained on this application is the playstore given category editor, or in the language of Indonesia means “editor” s choice”. This means that the application is highly recommended, even recommending this application is the editor himself that no other official staff from google.

Arguably this application is a game , but certainly not an entertainment game in general, games on Duolingo very closely linked with education, especially in learning a foreign language. On operational the user will be given 5 heart that functions as the life of other user. Every wrong answer then user loses 1 point of lives, and so on. And if the heart has been exhausted, then it should be repeat the

lesson all over again. This application combines elements of audio, visual and also questions surrounding the grammar of a language with a very pleasant way.

a. The Primary Aims of Duolingo

The primary idea of Duolingo is very deep. It combines human and computing power to solve problems neither people nor computers could solve alone. Human computation is a growing research area that studies how to harness this combined power.

The goal of this project is to introduce online education as a new vehicle and incentive mechanism for human computation. The central hypothesis is that problems that are difficult for computers can be transformed into tasks that are also educational, so that students solve the problems at the same time as they learn. With millions of people learning online, education could provide a powerful motivator for participation in distributed human computation. This project will demonstrate that education allows significantly more complex problems to be attacked with human computation than has been possible with previous paradigms for human computation. The project will also explore whether human computation can be a motivator for education.

This application is considered suitable for learning a foreign language primarily English language. In addition to his work, the appearance of the application is also interesting and not boring. Some people did have its own way in learning, but I think people tend to prefer games, so if the educational element in the game will make the process of learning to be more effective, so that, if you are the type of person who loves to learn while playing, then I highly recommend the

Duolingo (free). In addition, a lack of in App Purchase in Duolingo really make this application very worthy for you have.

b. The Founder's Professional Resume

Luis von Ahn was born in 1979 in Guatemala City where he also grew up. He attended the American School of Guatemala, from which he graduated in 1996. He studied and obtained a Ph. D. from Carnegie Mellon University in 2005. His accomplishments in the field have been recognized worldwide including through a 2006 MacArthur Fellowship and by Spanish-language Foreign Policy magazine, which last year named him as the most influential new thought leader of Latin America and Spain. In 2000 he succeeded with the already mentioned early work on captchas. This brought him a large interest among the public. In July 2006 he gave a talk at Google on Human Computation crowd sourcing, where he was watched by over a million viewers. In 2007 von Ahn invented recaptcha, which is a new form of captcha that also helps to digitize books. This product was sold to Google in 2009 and is currently used by over 100 000 websites and is transcribing over 40 million words per day. In 2011 he was awarded the A. Nico Habermann development chair in computer science (this award is given to a junior faculty member of unusual promise in School of Computer Science every three years).

Von Ahn is now an entrepreneur and an associate professor in the Computer Science Department at Carnegie Mellon University. He was also awarded a MacArthur Fellowship (the genius grant) in 2006 and later he obtained more different awards. He has also been named one of the 50 Best Brains in Science by Discover Magazine. From 2011 is von Ahn working on Duolingo.

With his full attention devoted to Duolingo and the concept of a universally readable Internet was communicated to the public that the world should not expect to see any new ideas out of him soon.²³

Duolingo is a free language-learning website. It is designed so that as users progress through the lessons, they simultaneously help to translate different websites and other documents. It was developed to translate the web and as the side effect there are millions of people learning a foreign language. Duolingo builds a world with free education and no language barriers. Users are able to learn languages for free while simultaneously translating the web.

In the desktop version, the app has different areas:

- a) The tree, which contains skills, each represented by a node that changes color from grey (indicating that a skill has not been started), to a color like red, blue or green (you have started the lessons within the skill), to gold (you have mastered all the lessons and vocabulary for that specific skill).

Note that the gold color can turn back to another color if the algorithm of Duolingo establishes that you need to go back and review those nodes because you have forgotten the vocabulary or because enough time has elapsed. Duolingo has not, up to now, published the content of the tree.

The only way to find out is to complete the tree yourself. Thankfully, in the case of Spanish, there is a Google Doc, with its content. These are the components of the tree:

²³ Luis von Ahn. Duolingo accessed from <http://www.pando.com/Pando> Say what Duolingo points to data's important role in online education.html. Vol. 3. No. 1. P 1

- i. 66 Skills. Some examples of these are: Food, Animals, Plurals (for beginning nodes) to Modal Verbs, Subjunctive Past, or Past Imperfect (for the more advanced nodes).
- ii. 329 Lessons. Each skill has several lessons, which can range from one to eleven. Each lesson covers about seven or eight words. Each completed lesson gives 10 XP (points).
- iii. 1571 Words.
 - b) Words: A list of the words the user has studied or already knew. Each word is accompanied by a strength bar, which indicates if the word is still strong in your memory or if it is time to practice again, according to Duolingo's algorithm. You can also review these words through flashcards.
 - c) Activity: Duolingo works similarly to a social network site. You can follow other students, and other people can follow you. The activity stream shows not only what you and the people you follow accomplish in Duolingo (levels opened) but also if you or they have made a comment in the discussion board. All the people you follow and you yourself appear on a leader board list, which shows the XP (Duolingo points) that you obtain weekly. This is reset every Sunday at 7:00 pm Eastern Standard Time (United States).
 - d) Discussion: In this area, users can post discussions about topics that interest them. A discussion will also be created if there are questions about any of the activities completed during the lessons, in which case users negotiate meaning among themselves. The discussions are divided

according to the language you study, and there are also general discussion areas, like the one recently opened for educators (this will be discussed in more detail later). Discussions are voted up or down (similar to places like *Reddit*), so the more popular ones are more visible. It is also the area where the creators or moderators of Duolingo post important messages to the community.

Lingots in the Discussion area. With lingots you can buy several things, like a freeze streak|| which will allow you to miss a day and not lose your streak, some silly outfits for the Duolingo owl (the program's mascot), or, more important in my opinion, a progress quiz, which shows you on a scale of 0 to 5 where you currently stand in your studies.

The mobile version of Duolingo does not have these many areas. It is limited to the tree and the Lingot Store, although you still can see there the leader board with information about the people you follow. The app also informs you of your streak. You can set up daily goals (the minimum being 10 XP per day), and the app will send you reminders and notifications if your goal has not been completed that day. For this study, I have only used the tree area with the skills and lessons. The following description applies to this area exclusively: students can perform different types of activities on Duolingo. Once you click on a skill, you are presented with the available number of lessons for that particular skill. Each lesson lists the words (up to eight) that it will review. In addition to the lessons, each skill can be just reviewed in general, once you have completed all the lessons or have tested out of that skill. That is called practice|| or strengthening skills|| within the app in order to differentiate it from regular

lessons. You can choose general practice in order to review areas that the program considers have not been practiced, rather than just one specific skill. Or you can choose to do practice within one skill once you have completed all the lessons.

There is a symbol in each lesson that indicates the strength of that skill with a maximum grade of 5. Once you reach five, the symbol for the skill becomes gold. Following is a list of the most common activities in each lesson (it may not be comprehensive, since the app is constantly being modified):

- i. Write a vocabulary word after seeing a picture that represents it.
- ii. Translate a sentence into your native language. When words are first presented, the user can hover over the word to see its meaning.
- iii. Translate a sentence into the language being studied.
- iv. Write a sentence that you hear. There are two speeds, normal and slow, which you can click to hear the sentence more clearly.
- v. Pronouncing a sentence. Through voice recognition software, the app can detect whether your pronunciation is correct.
- vi. Match pairs of words.
- vii. Put a series of scrambled words in order.
- viii. Choose from three sentences in the target language to see which ones fit the sentence in the native language.

Activities are presented sequentially, and the lesson extends, itself if you get wrong answers, as indicated by the strength bar at the top of the lesson. If there are no mistakes, it takes seventeen short activities like the ones described above to complete a lesson. This generally takes five to ten minutes. This time may vary, however, since new activities are added if you make mistakes.

Duolingo incorporates some gamification elements to motivate and engage learners. Some examples of this are the lingots as awards given when you complete a skill; the inclusion of a weekly leader board, where you can compete against friends to see who has the highest XP; a symbol of a flame next to your name with the numbers of days of your streak on the site; the aforementioned strength bar, which appears when a user is completing a lesson, to indicate how close they are to finishing it, etc. These elements make the app more enjoyable, although the exercises themselves are quite traditional, as we have seen.

c. Educator's Area in Duolingo

Recognizing that many educators were using this tool with their students, as evidenced by the numerous discussion boards posting to that effect, Duolingo opened a new area in its website in January 2015, dedicated to teachers who want to use the platform with their classes.

The new area, <https://dashboard.duolingo.com/>, allows educators to create groups or classes. This generates a link, which can be sent to students so that they can join the group. In the dashboard, the teacher can monitor students' progress in several ways. The dashboard shows the time the student logged in, the lesson or practice he/she completed and the XP he/she obtained. A weekly report is sent by email, which includes all the work students have done during that time. In addition, there is now a dedicated area in the Discussion Forums just for educators' concerns and ideas. This dashboard did not exist when the study described here was conducted, and the instructor had to follow each student to see how many lessons they had completed. This new dashboard should facilitate the

work of educators immensely and make this tool much more useful, as suggested in this study.

d. Duolingo As an Educational Tool for Online and Face-to-Face Courses.

As we can see, even though Duolingo is pr d as a very modernlooking gaming app, in reality most of the activities necessary to complete the lessons are very traditional and are heavily based on translation, dictation, and pronunciation. In fact, there is already some criticism of the app within the language learning research community. Duolingo provides written lessons and dictation, with speaking practice for more advanced users. It has a gamified skill tree that users can progress through and a vocabulary section where learned words can be practiced. Users gain "experience point" (XP) as they learn a language, such as when they complete a lesson. Skills are considered "learned" when users complete all the lessons associated with the skill. Users win one point for each correct answer, and lose one for each error, and validate the lesson when they reach 10 points. In an earlier version, users would start with four "lives" on early lessons and three on later lessons, a "life" being lost with each mistake.

Duolingo also includes a timed practice feature, where users are given 30 seconds and twenty questions and awarded a skill point and seven or ten additional seconds (time depends on the length of the question) for each correct answer. This timed practice feature is only available after purchase in the Lingot store for ten lingots, the currency the site uses. As the goal of Duolingo is to get people to learn the language, each skill (containing between 1 and 10 lessons) has a "strength bar" that corresponds to the computer's estimate of how strongly certain words or constructions still exist in the user's memory. After a certain

duration of time, strength bars fade, indicating a need for a user to refresh/re-study that lesson, or to "strengthen weak skills." Courses can teach upwards of 2,000 words. Duolingo uses a data-driven approach to lesson planning. At each step along the way, the system measures which questions the users struggle with and what sorts of mistakes they make. For each language, Duolingo also has a "Progress Quiz" feature. This is an extended quiz that you can purchase in the Lingot store for 25 lingots. It measures your language learning progress, with 5 being the perfect score. This quiz is not adjusted to your level and it only tests your overall language competence.

e. The Translations Resulting from Duolingo

When considering this whole system an important question regarding the created translations may arise. The following lines indicate the strengths and weaknesses of this translation system. To teach the users a language Duolingo uses a combination of computer exercises and real-world texts from the Internet.

Each learner inputs their own translation, which they consider being the best translated, Duolingo merges the best translations and chooses through an algorithm the most correct and common one. As feedback for the users they can search the words if they need clues for their translations and the program automatically recognizes the obvious mistakes. Users' attempts to translate a phrase are later voted on by other users, then Duolingo compiles input from multiple users to make its final translations. In a talk given at a recent conference at Carnegie Mellon was said that the results are as accurate as translations from professional language translators.

f. The Available Languages

The languages available on Duolingo are: English, Spanish, Portuguese, Italian, French, German, Russian, Hungarian, Dutch, Turkish. From Hungarian, French, Portuguese, Russian, Italian, German, Spanish, Dutch and Turkish (as a mother tongue) it is possible to learn English. Also it functions vice versa but not equally yet - from English it is possible to learn: Spanish, French, German, Portuguese and Italian. Then there is one more combination -French from Spanish. For the Czech learners it means that they can learn for example German through English so far. The Czech is not available on Duolingo yet. However, this-duolingual- system is more effective because the learners (mainly those whose mother language is different from English) can try to think in English, discuss and deal with things in a foreign language.

Duolingo started with English, Spanish and German. It is necessary to mention that the system of available languages is still in progress and the new languages are still being added. Chinese is planned to offer next time. Due to popularity still new and new languages are required. At the beginning the developers wanted to meet these requirements and add the languages that people were requesting but they realized there were 70 of them. It would be very complicated to add them, so they decided to find a way to let users add new languages themselves. There will be a certain model, which would ensure that only one single person wouldn't be able to start a language course, they would need to involve enough people interested and supporting the plan.

g. Methodical Aspects

This chapter describes the system of learning a foreign language through Duolingo. As mentioned in the previous chapters about e-learning methodology, every learning system must have elaborated a certain number of methodological aspects, which ensure the successful learning. These aspects, e.g. monitoring the progress, motivation, feedback, vocabulary and some others are described below.

h. Gradual Progress

Duolingo has an excellent learning strategy because it has very motivating learning system. It uses a strategy of game mechanics to create the incentive to keep students learning. It is built very similarly to a computer game where the participants have to pass certain levels. A student passes the tree level of the language. The following lessons are unlocked after a learner has mastered the previous material. Users can complete a variety of exercise types including multiple choices, writing and also speaking through a microphone. Duolingo uses mainly drills and repetitive exercises in the lessons.

i. Learning Vocabulary

There is also a special page to monitor a learner's level of vocabulary. In this page the words with all their forms used during the learning can be seen, the time of the last practice of it and how a learner was successful in using it. It was based on the learners' feedback, so they can easily see the level and size of their vocabulary and the knowledge of each word. There is a possibility for them to practice words individually and see some sample sentences or more examples of them. In every lesson there is also an overview of the acquired vocabulary. It is possible to see there the individual words, the forms in which these words were

used correctly and also how strong in using a word a learner was during completing a lesson.

j. Speaking, Listening and Pronunciation

While browsing the lessons a learner can come across some pronunciation tasks where they are required to rewrite a sentence according to the dictation which they hear, and thereby they develop the listening and writing skills. The dictated sentence can be played repeatedly, a learner can choose from the two options – slower speed of speaking or faster version of it. This system works even vice versa, i. e. a learner is required to read a sentence aloud with the right pronunciation, the sentence is recorded and if judged to be correct the lesson is continuing by the next task, otherwise it must be repeated (of course with the loss of one heart). This is important for development of the speaking skill.

k. Monitoring Progress and Skills

One of the most significant and motivating aspects when learning anything is the possibility to see the success, progress and development. Providing the feedback, evaluate and correct mistakes are the necessary tasks of each teaching subject. This learning project has an interesting way of recording the process is education. Students can learn gradually step by step and monitor their results and progress. The skill points illustrated as a yellow coin and the words learned illustrated as a letter W in the blue circle can be seen on the right side.

l. The Skill Page

There is a special page focused on monitoring a learner's skill. In this new page, users can learn skill by doing all lessons and master it by translating the real world sentences from a set of skill-related translations. Whenever a lesson is

completed, a user can see a list of the words they have learned on the lower part of the skill page (these words can be practiced on the Vocabulary page, as mentioned above). Before this Skill Page existed there were so called skill points to measure the progress. These skill points were divided into two groups: global skill points and skill-related points. Only skill-related points allowed the progress. There is only one type skill point on Duolingo now, these are earned by doing lessons and translations but are only used to measure progress towards the next language level. The Skill Page, however, represents a central element in learning experience and it is planned to be constantly developed to make a learner's progress more visible.

m. Motivation

As can be noticed in the previous chapters, the whole system of learning itself is highly motivating. In particular, it is the model of gradual improvement, monitoring of the learning skills and the feedback. Users can acquire points for returning to the site every day and Duolingo uses a set of algorithms to re-enforce vocabulary and grammar according to rules that will maximize mental retention. There are also some minor motivating aspects, e. g. the fast tests allowing to pass a lesson easily, the limited attempts for a lesson or test, which means the limited possibilities to make a mistake during completing a lesson or test. More accurately, in a test there are three possibilities, in a lesson three or more. These are illustrated by the appropriate number of symbols of heart in the upper right corner otherwise the lesson must be done again from the beginning. Then, for instance, there is a possibility to win a golden cup after finishing a lesson.

One of the newest actualization is a Duolingo coach, which like a virtual teacher reminds a learner via email, follows the course of learning, praises or admonishes. The Duolingo creators found a model in the success of personal trainers and this new coach in visual form of an owl also encountered great success among the learners. These aspects may seem to be unimportant, but right these they the ones that make Duolingo different from the others learning portals.

This Duolingo game|| made a large amount of people dependent on it (similarly as Facebook, twitter or other social networks). The learning online itself provides a sufficient level of motivation. A hard thing when learning a language is just staying motivated.

A large fraction of people want to learn a language but at end of day it is hard to do it. The extremely high level of motivation, however, is represented by the possibility of interaction and communication. Duolingo as a communicative learning model enables to share the experience and knowledge with peers and friends via social networks. By login with Facebook or twitter to see how learner's friends continue, compare or compete. Also at the homepage when a user is logged there is a possibility to see friends who are following or preceding a learner. Duolingo itself has its blog where a learner can share his/her experience, opinions, comments or evaluations, and discuss different problems regarding the lessons, learning or language.

The next point regarding motivation is the rapid development of the learning possibilities. At the beginning it was possible,only to learn online, then it could be uploaded to a computer and available offline, now the high level of motivation especially for the young learners is represented by the availability on modern

communication devices. It is possible to learn also on the new technological advances such as iPad or iPhone or tablets and smartphones, which is highly popular these days.

The modification of the visualization for new media was carried out by optimizing the previous stretched phone version to a new application for the bigger screen. Among actualizations there is, for instance, a new side-bar that enables to see immediately the Duolingo statistics or leaderboards of friends. Then, there was also added a landscape mode, which adapts the screen and therefore enables to hold a device in any way possible. Next steps in updating these features are planned, above all already mentioned offline mode and speaking exercises. For a learner there is an option to ask for a link for their kind of device right through the Duolingo, consequently the link will be send by email.

n. The Description of Duolingo on Mobile Phone

To use the app, learners must download it from Google Play/iTunes and install it on their Android/IOS devices. English speaking learners can choose from a list of 16 languages from French through Irish to Esperanto. Speakers of other languages, however, do not have as many options. An English speaker can choose out of 15 complete courses, four Beta courses (with eight languages being hatched), whereas an Indonesian speaker can choose out of only one language is English and a French speaker has the opportunity to learn only 4 languages (with only one other language being hatched). However, compared to similar apps on the market, such as Babbel and Busuu, this is a very wide range of languages that is still growing, mainly due to its unique and broad community of learners and the platform provided for them to contribute to Duolingo. After the learners have

selected which language they wish to learn, the app asks them to pick a daily goal from the list appearing before them. The daily goals range from *Casual*, through *Regular* and *Serious* to *Insane*, denoting respectively 5, 10, 15, and 20 minutes of practice per day (see Figure 1)

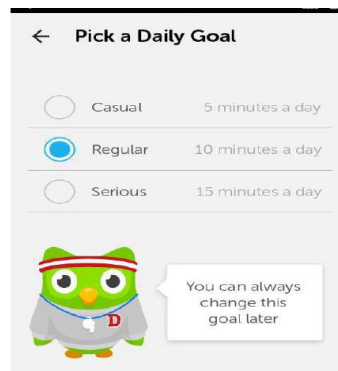


Figure 1. A screenshot of the settings before going into lessons

The app then inquires whether the learner already knows anything about the language, and if so, it provides the learner with a placement test. If the learner is new to the language, they start with the basics. It is safe to say that Duolingo is a very straightforward app and very simple to use. Without any more questions or even registration for the course, the learner can go right into their first lesson by tapping *Start*. The exercises are of many types:

- a. Translation exercises, in which the learners translate from the language they know to the language they want to learn or the other way around (see Figure 2).
- b. Matching exercises, in which learners see a photo and match it with the words given or the other way around (see Figure 3).
- c. Pairing exercises, in which learners are given an even number of equivalent words from both languages and are asked to pair them (see Figure 4).

- d. Listening exercises, in which learners listen to a short phrase in the second language and have to type it correctly (see Figure 5).
- e. Speaking exercises, in which learners have to say what they hear (see Figure 6). Each lesson contains 10 to 15 exercises, a few from each of the categories mentioned above, and learners have a progress bar on the top of their screens. Every time they get an answer right, the bar moves a little bit forward. Every time they get it wrong, the bar does not progress, Duolingo points out the mistake and repeats the question at the *end* of the exercises until the progress bar is completed. Duolingo also allows the learners to go back to whichever lesson they want, whenever they want, even if they have gotten all the answers right.



Figure 2. A translation exercise

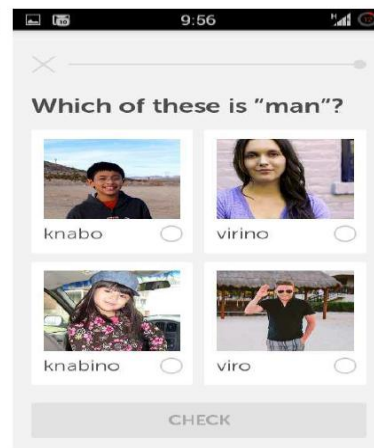


Figure 3. A matching exercise

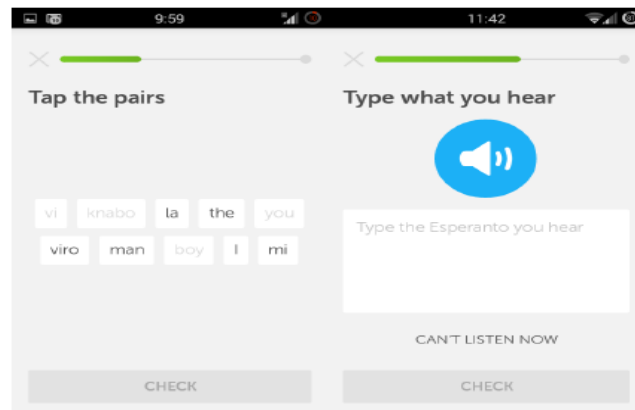


Figure 4. A pairing exercise

Figure 5. A listening exercise

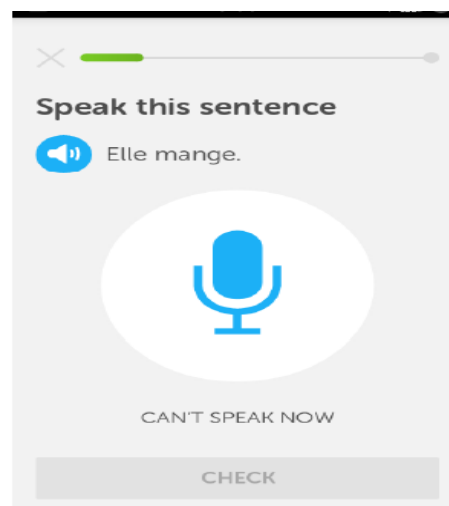


Figure 6. A speaking exercise

When the learners accomplish a daily goal, Duolingo rewards them with surprising and upbeat sounds and pictures, making the learners feel like they have accomplished something big (see Figure 7). If the learners don't sign into their Duolingo accounts to complete their daily goal, Duolingo sends a push notification to their phones and reminds them to do their exercises and meet their daily goals; usually these daily practice reminders are accompanied by

promotional statements such as *62.5 million people are learning languages using Duolingo* to spur the learners into action. Duolingo does this by notifying learners at a specific time every day; however, if the learners are busy during that specific time every day (are at work, running errands, sleeping, etc.), they can tell Duolingo when to remind them, for example 07:00 PM, and if by 07:00 PM they still haven't reached their daily goals, they receive these daily practice reminders



Figure 7. A screenshot of what comes after you have completed your daily goal

Duolingo is a very smart app. For example, if in a translation exercise, learners type "Im not a teacher||" instead of "—I'm not a teacher||", the app will know

this is a typo and not a mistake. The learners pass the exercise but are reminded of the typographical error in their answers. Another interesting characteristic of the app is the *Dumbbell* button that learners can use from the home page of their course. Through this feature, Duolingo offers personalized exercises for each learner, focusing on their weaknesses and improving their skills. To Duolingo,

learners can add friends, and use this feature to communicate and/or compete with them. By finishing a lesson successfully, they gain (10) XPs, and can see the number of XPs their friends have scored. Moreover, Duolingo users can make the app notify them when someone has more points than them (setting>someone passes me) which can be very motivating. It must be noted that Duolingo does not provide any grammatical explanations. It only immerses the learner in the target language by offering exercises centered on new vocabulary.

To learn the grammar, learners must deduce the principles of grammar on their own and through trial and error. Even though Duolingo penalizes the learners for the tiniest of mistakes and points out the most insignificant typos, it does not present the learners with any grammar notes or rules of any kind. Should learners make a mistake in the new language, Duolingo shows them where they have made the mistake, but they will have to work out the rule on their own.

o. Duolingo keeps education free with AdMob native ads

Duolingo is an online education platform that helps millions of people around the world learn languages and also one of the most popular educational apps globally. It was selected by Apple as iPhone App of the Year in 2013, and by Google as Best of the Best for Android in 2013 and 2014. Building, supporting, and expanding on a platform used by that many people can be expensive and complex. Thus, Duolingo faced a profound challenge , how could they monetize a free, beloved product without undermining their mission or hurting the trust of their users.²⁴

²⁴ Musa Nushi and Mohamad Hosein Eqbali. 2015. Duolingo: a mobile application to assist second language learning *Teaching English with Technology*. Vol. 5. No. 3. P.8-9.

Duolingo saw ads as a way to build a sustainable business while still placing product value as the most important feature. When implemented properly ads can have a transformational effect on a business's ability to grow. However, if implemented poorly they can be intrusive, poorly designed, erode trust and result in a bad user experience. So to ensure the best user experience, Duolingo chose to use AdMob native ads, a format that allows fully customized ads to be placed in ways that don't disrupt their students' learning flow. Below you can see what the app looked like prior to the update and then after Duolingo integrated AdMob's native ads solution with an improved design Duolingo had tested different ad formats, image sizes, designs, and messaging with the goal of increasing click through rate (CTR) without hurting user retention. Through these tests, they found that using large images, calling attention to the visuals of the native ad, and fully styling ads to match Duolingo's distinctive visual brand delivered the most striking results. For example, Duolingo saw a 101% improvement in ad CTRs and an RPM increase with a single change by switching from small images to larger ones and emphasizing the call-to-action buttons within the ad unit.

p. Duolingo as a Gamified multiplatform

Duolingo is one of the most popular and well-known language learning platforms [10]. It started as a project on Carnegie Mellon University in Pittsburgh. Its goal is to get people to learn a language of their choice for free. It is available as a web page or mobile app for iOS, Android and Windows Phone systems. To enhance user's motivation for learning Duolingo applied game mechanics.

In Duolingo there is a skills tree that users can advance through and a practice section where learnt words or phrases can be strengthened. The skill is considered as achieved if all associated lessons are completed. Each skill has the strength bar which is connected to internal system that estimates for how long learnt words and language constructions exist in users' memory. After a period of time, strength bar fades out, showing that lesson needs refreshing. What is important, the user does not have access to all skills at the beginning. Only after the currently available skills are achieved, new content is unlocked for the user.

As users advance through lessons they earn *experience points* (XP). After choosing which language user wants to learn, he must decide how much XP he wants to earn daily to meet the *daily goal*. User may choose between one of five daily goals: 1, 10, 20, 30, 50 XP. If he meets the daily goal, the counter known as *daily streak* is increased by 1. Additionally, if he does not earn required amount of XP, streak is turned back to 0. Next important functionality of Experience Points is known as *levelling up*. After earning required amount of points, shown in users profile as *experience bar*, user *levels up*. *Hitting level* means that amount of points required for next level is increased. Another game mechanics implemented by Duolingo is *leader board*, which is activated if user adds a friend to his list.

Leaderboard shows automatically how much XP user and his friends earn today, in current week or month in a form of a ranking. This functionality allows users to compete and thereby increases desire to learn and beat friends in-game.

Duolingo uses the currency called *Lingot*. In order to earn it, user has to level up, invite new users via social networks, complete a skill or maintain a streak for a total of seven or more days. Lingots can be used to purchase

additional skills, bonuses such as streak freeze or customize the appearance of Duo - the owl mascot. User also can give some Lingots to other user as a gift.

Duolingo also applied social aspects of gaming into its structure. There is a board called timeline. It presents all user achievements such as *level up* or *skill achieving*

4. Vocabulary

Vocabulary can be defined as " words we must know to communicate effectively; words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)". Hornby defines vocabulary as "the total number of words in a language; vocabulary is a list of words with their meanings". While Ur states: "Vocabulary can be defined, roughly, as the words we teach in the foreign language. However, a new item of vocabulary may be more than just a single word: for example, post office, and mother-in-law, which are made up of two or three words but express a single idea. A useful convention is to cover all such cases by talking about vocabulary "items"rather than "words."In addition, Burns defines vocabulary as" the stock of words which is used by a person, class or profession. According to Zimmerman cited in Coady and Huckin 'vocabulary is central to language and of critical importance to the typical language learning.²⁵

From the definitions above, it can be concluded that vocabulary is the total number of words that are needed to communicate ideas and express the speakers' meaning. That is the reason why it is important to learn vocabulary.

Vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful

²⁵ Newman. S.B & Dwyer,J. 2009. *Missing in Action Vocabulary Instruction In Pre-K. The Reading Tacher*. Cambridge: Cambridge University.P.385-392

communication. Underscoring the importance of vocabulary acquisition, Schmitt emphasizes that “lexical knowledge is central to communicative competence and to the acquisition of a second language”²⁶

Nation further describes the relationship between vocabulary knowledge and language use as complementary: knowledge of vocabulary enables language use and, conversely, language use leads to an increase in vocabulary knowledge. The importance of vocabulary is demonstrated daily in and out the school. In classroom, the achieving students possess the most sufficient vocabulary.²⁷

Jackson and Amvela say that the terms of vocabulary, lexis, and lexicon are synonymous. Vocabulary is one of the language components that can affect macro skills. Some definition of vocabulary is proposed by some experts. Furthermore, Jackson and Amvela say that the terms vocabulary, lexis, and lexicon are synonymous.²⁸ In addition, Richards and Schmidt state that vocabulary is a set of lexeme, including single words, compound words, and idioms. Vocabulary is the total number of words in a language; all the words known to a person or used in a particular book, subject, etc; a list of words with their meaning, especially one that accompanies a textbook²⁹

²⁶Schmitt,N,N. 2000. *Vocabulary In Language*. Cambridge: Cambridge University Press. P.55

²⁷ Nation.I.S.P. 2001. *Learning Vocabulary In Other Language*. Cambridge : Cambridge University Press. P.69

²⁸ H. Jakson And Ze Amvela,E. 2000. *Words, Meaning, And Vocabulary, An Introduction To Modern English Lexicology*. Cassell. Taylor: Francis Group. P.11

²⁹ J..Richads And Shcmidt,R. 2002. *Longman Dictionary of Language Teaching & Applied Linguistic*. London : Oxford University. P.580

a. Kinds of Vocabulary

Some experts divide vocabulary into two types: active and passive vocabulary. According to Harmer in Notion, distinguishes between these two types of vocabulary. The first type of vocabulary refers to the one that the students have been taught and that they are expected to be able to use³⁰. Meanwhile, the second one refers to the words which the students will recognize when they meet them, but which they will probably not be able to pronounce. Haycraft, quoted by Hatch and Brown, indicate two kinds of vocabulary, namely receptive vocabulary and productive vocabulary.³¹

a) Receptive Vocabulary

Receptive vocabulary is words that learners recognize and understand when they are used in context, but which they cannot produce. It is vocabulary that learners recognize when they see or meet in reading text but do not use it in speaking and writing.

b) Productive Vocabulary

Productive vocabulary is the words that the learners understand and can pronounce correctly and use constructively in speaking and writing. It involves what is needed for receptive vocabulary plus the ability to speak or write at the appropriate time. Therefore, productive vocabulary can be addressed as an active process, because the learners can produce the words to express their thoughts to others.

³⁰ Ibid. P.83

³¹ Ibid. P.102

b. Vocabulary in Foreign Language learning

Vocabulary plays an important role in foreign language learning. The development of rich vocabulary is important when the learners acquire the English as a foreign language. Vocabulary becomes an essential part in foreign language learning. The vocabulary that is taught in foreign language learning depends on the objective of the course and the amount of time available for teaching.

c. Teaching and Learning English Vocabulary

The teaching of vocabulary is not easy to do. Some people think that vocabulary teaching only wastes the time because vocabulary number is unlimited. The English teachers had better teach English vocabulary first than other aspect of this language, such as grammar, speaking, reading and writing. If students know more vocabulary, it will be easy for them to learn another aspect of English language. Vocabulary is a central of English language acquisition, as according to Celce and Murcia vocabulary learning is a central to language acquisition whether the language is first, second, or foreign.³²

Vocabulary is the most important material in foreign language teaching for young learners. Therefore, the teaching of English vocabulary has a very essential role in enabling Indonesian students to master English as their foreign language. English vocabulary mastery, in fact has become a big problem for most Indonesian students. If one does not have sufficient number of vocabulary, he will not be able to communicate with his surroundings.

³² Celce & Murcia.2001. *Second Language Assessment, In M.Celce-Murcia, Teaching As A Second Or Foreign Language*, Boston: Heinle & Heinle. P.285

Allah says in Al-Baqarah verse 31 as follow:³³

وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي

بِأَسْمَاءِ هَٰؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ ﴿٣١﴾

The meaning: “and He taught Adam the names of all things: then he placed them before the angels, and said : “Tell me the names of these if you are right.”

This verse tells us that human beings essentially must recognize the vocabulary, one of them by knowing the names of objects then we can apply it in the form of conversation and writing, with the number of vocabulary that we have then the easier we explore the science that we have not known.

Vocabulary is core component of language proficiency and provides much of the basic for how learners speak, listen, write and read. Without an extensive vocabulary and strategies for acquiring vocabulary, learners often achieve less than their potential and may be discouraged from making use of language learning opportunities around them such as listening to the radio, listening to native speakers, using language in different context, reading or watching television.

³³ Departemen Agama Republik Indonesia. 1989. Al-Qur'an Terjemah. Semarang: Cv Toha Putra Semarang. P.14

B. Related Study

1. Laila Mahmudah (2015). "An analysis of pronunciation exercise in duolingo application and its contribution as English learning media". The aims of this research are discusses the analysis of pronunciation excercises in "Duolingo application" in term of aim of exercises, types of exercises, the strenghts and weaknesses and the appropriateness of this application as English learning media.

The background of research is the importance of exercises to enable the English learners to master their skills especially in pronunciation skill. The research is aimed at responding the following question ; (1) How is the range of pronunciation exercises are found in Duolingo application? (2) In what aspect are the Duolingo application appropriate as English learning media?. The topic is discussed through descriptive qualitative approach. The pronunciation exercises in "Duolingo application" are used as data.

The data gathered by applying, reading, identifying, selecting and classifying the application. All data the analyzed by using evaluating application (content analysis). The result of analysis reveals that in term of aim of exercise, the pronunciation exercises are sufficient enough to improve the learners" ability in pronunciation skill, especially for beginner English learners. In the term of type of exercises, all pronunciation exercises are based on type of pronunciation exercises. In term of digital resources criteria in a book of "Evaluation and Selection of Learning Resources", Duolingo application is appropriate

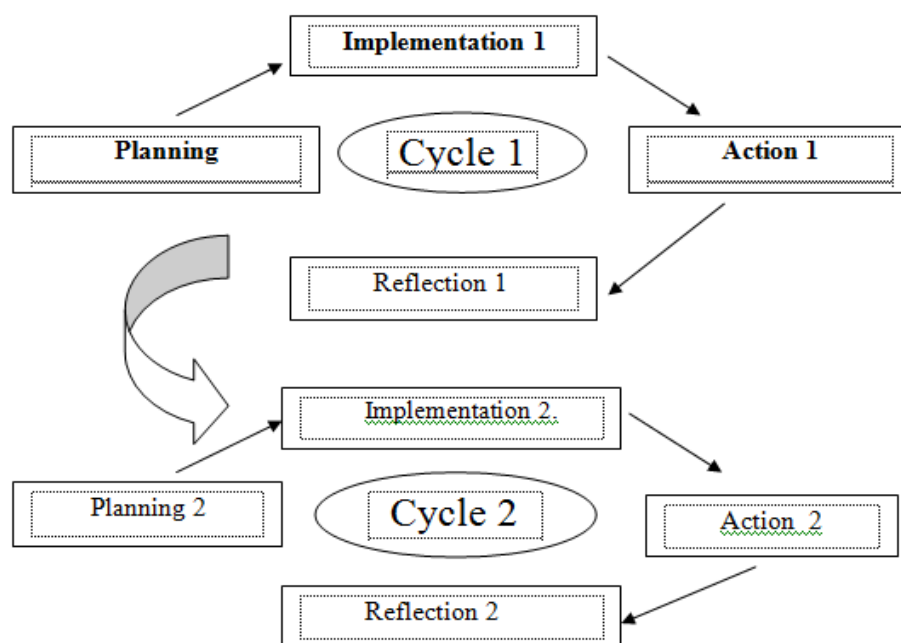
learning media. There are ten criteria for Duolingo application to be relevant digital resources. The contribution consist of an accuracy analysis of the appropriateness of Duolingo application as English learning media. By reading this thesis, the learners can get larger knowledge about the pronunciation exercises and knowing the appropriateness of Duolingo application as English learning media.

2. Abdul Mananza (2017). “ The implementation of duolingo as media to improve students’ English language skill at IAIN Langsa”. Due to the evolution of technology, this study focuses on the use of technology in order to promote language learning. Duolingo is one of the modern applications that facilitate acquiring an international language. Hence, the study aims to confirm the effectiveness that Duolingo helps learning for the students at IAIN Zawiyah Cot Kala Langsa. It is a survey research including questioner. It is also a case study that involves 26 participants who used Duolingo to learn English simultaneously for two months. The participant are male and female college student whose age are 19 to 25 years old, and they live in Langsa, Aceh, Indonesia. After collecting the data, they were analyzed and described to have the final results. At the end, the results displayed that Duolingo can be an effective learning application for the students at IAIN Zawiyah Cot Kala Langsa, but it has limitation. Thus, it is recommended to continue of Using Duolingo for advanced levels as well as for English language learners.

C. Conceptual framework

The researcher will conduct six meetings. In the first meeting, the researcher give try out test in order to determine the quality of the test as the instrument of the research. In the second meeting the researcher will conduct the pretest to know their basic ability in vocabulary. In the third meeting, the researcher conduct the first treatment by using Duolingo application. In the fourth and fifth meeting the researcher still conduct the treatment. The last meeting was used by the researcher to conduct post-test.

The schema of conceptual framework of improving student's ability in using English vocabulary through duolingo application:

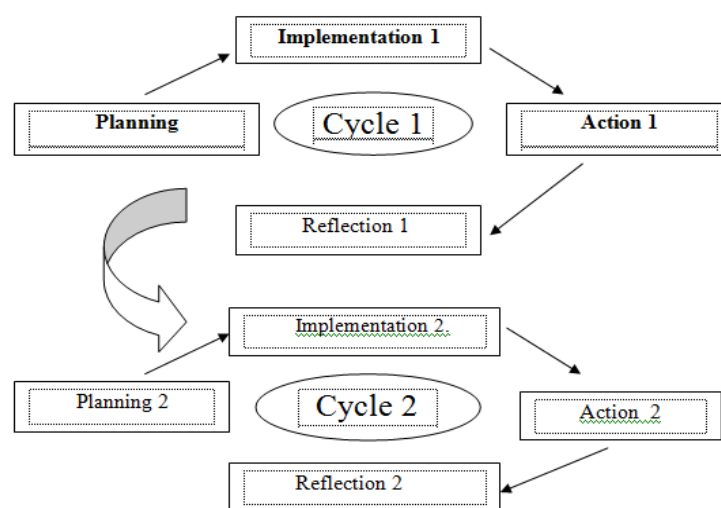


CHAPTER III

METHODOLOGY OF RESEARCH

A. Research Design

The study will be design according to action research. According to Isac in Halim, action research is a name given to a flow in the education research. To distinguished with research action outside of education, the educational researchers use the term classroom action research.³⁴ From the explanation above, action research is not only limited to education course but other areas that goal to solve the problems. Trough this research, the researcher focus to the improving students English vocabulary through duolingo application .The model of this research using Stephen Kemmis and Mc Taggart model. This model consist of cycles where each cycle consist of planning, action, observation and reflection, and also the next cycle till the problems of the study can solve by the improving student's English vocabulary through duolingo application



Figures 3.1

³⁴Halim et al. 2015. *Penelitian Tindakan Kelas*. Medan: Perdana Publishing. P.

B. Research Setting and Subject

The research will be conducted in MTs Guppi Pangkatan at Desa Pangkatan in the academic year of 2018 at the first semester of the year. The researcher is interested in applying the Duolingo application as a media for teaching in MTs Guppi Pangkatan because this media has never been taught in this school in previous research.

The subject of this research will be students in grade 8th at MTs Guppi Pangkatan. The researcher just took a class as the object of this research. The selected class for this research was students of VIII. In determining the class, the researcher had a discussion with the English teacher to consider the problems by using media in teaching.

C. Data Collection

In this research, the researcher used qualitative and quantitative data to collect the data such as: interview, observation, and test. The qualitative data used to describe the condition of the students in learning narrative text before, during, and after using the Duolingo application as a media for teaching in class. While, quantitative data used to measure students' ability in using English vocabulary. In this research, the researcher used the following forms of data collection:

1. Observation

The researcher will observe the activity of students and teachers in the learning process directly. The purpose of this observation is to know and collect information about what the researcher sees and hears in and outside the classroom. The observation will be conducted to determine all of the students' activities in teaching and learning. Besides that, the purpose of this observation is also to find

out problems associated with the research that will be done and then compare it with the result of interview from the informant. See on appendix 5 and 6.

2. Interview

Researcher tries to get information directly by face to face with respondents. Interview will conduct openly, in a state formal and informal directly from the informant required. Interview conduct students and English teacher relate to problems that occur in learning English. Then, interview will be conducted to determine the ability of students in understanding the material and to know students' opinion about the implementation duolingo application as media in teaching and learning

3. Test

Researcher will give test to the students, the test consist both of pre-test and post-test. The test instrument used in this study is in the form of multiple choices with a number of questions as much as 20 questions, each of question consist of 4 choices of answers. This research needs more than three-time treatments in order that the increase of the students' vocabulary achievement will be more significant and the students can get much vocabulary. Try out was conducted in order to measure the quality of the test used as the instrument and to determine which items should be revised for the pretest and posttest. After administering the pretest, the treatments were conducted for three times. When the teacher gave the treatment to the students, it seemed that they were interested in the materials. Duolingo application was presented with clear procedures.

D. Data Analysis

This research used qualitative and quantitative data. Qualitative data is the form of observation sheet, interview with English teacher and the students. While the quantitative data used for assess the test include of pretest and post test. These tests were analyzed by comparing the result of the test in each cycle.

The kind of the test is multiple choices to assess the students' comprehension in narrative text by using the formula of the assessment are following:

$$S = \frac{R}{N} \times 1$$

Where

S = Score of the test

R = The number of correct answer

N= The number of the question

To know the mean score of students' comprehension evaluation in each cycle, the formula is following:

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

Where:

X= The mean of students' score

$\sum x$ = The total score

N= The number of the students

Then to analyze the qualitative data by using Miles and Huberman model of data analysis consisting of :

a) Data Reduction

Miles and Huberman in Salim explained that data reduction is defined as the election process, a focus in simplification, abstraction, and data “rough” transformation arising from written notes in the fields³⁵. In order data reduction is process of focusing and simplifying raw data, making it easier to understand in a more manageable form.

b) Data Delay

Data delay is a set of arranged information that gives the possibility of conclusion and presentation of action. By displaying the data, the researcher was easy to understand and to analyze what was happened with the data presented.

c) Conclusion

At this stage, the data that has been presented is then verified and drawn the conclusion. The conclusion was in the form description of the object of this study. Finally, in this step the research will get the result and conclusion of the research.

E. Research Procedure

In this research, researcher carry out some steps in the application of the cycle, those steps are described are follow:

³⁵ Salim and Syahrums. 2016. *Metodologi penelitian kualitatif*. Bandung : Cipta Pustaka Medis. P 148

1. First Cycle:

a) Planning

In the first meeting, the researcher give try out test in order to determine the quality of the test as the instrument of the research. In the second meeting the researcher will conduct the pretest to know their basic ability in vocabulary.

b) Action

After planning and setting the action, the researcher will implemented a set of action that has planned in the process of learning. The researcher will be implement duolingo application as media in teaching English vocabulary. The activities in this step are followed:

This research needs more than three-time treatments in order that the increase of the students' vocabulary achievement will be more significant and the students can get much vocabulary. Try out was conducted in order to measure the quality of the test used as the instrument and to determine which items should be revised for the pretest and posttest. After administering the pretest, the treatments were conducted for three times. When the teacher gave the treatment to the students, it seemed that they were interested in the materials. Duolingo application was presented with clear procedures.

At the first treatment, the students were told first what the Duolingo application is. The teacher introduced the rules in doing the application and demonstrated the application by giving the example. The teacher gave an example by the LCD screen and played Duolingo application, and then the teacher asked the students to answer the questions. The teacher and the students explained or

translated the unknown words together. After that, the students have to work with the laptop or the gadget device. For the student that did not bring the gadget can work together with their chair mate. Then the teacher explained the rule of Duolingo application.

Then the teacher makes sure that the students had understood the game and the procedures involved the rules. The teacher commands the students to begin the application. The students try to find new words. They should also complete each level less than 7 minutes, in order to the students focused at their level. The teacher announces the winner which has the highest points on Duolingo application, after that the teacher gives the evaluation. When teaching in the classroom, the researcher found that the students were enthusiastic in following the teaching learning process because they were not aware that they were studying.

In the second meeting, the teacher did the same thing as the first treatment for the second treatment. The teacher told the students that they were going study about the vocabulary through Duolingo application. The teacher told the students to log in with their own account, and then continued their last level and tried to get the higher points than before. On this meeting, the teacher asked the students to only used one gadget for two students, so they played Duolingo application in a pair.

In the third meeting, the teacher did the same thing as usual from beginning until closing. The students had to log in with their own account and then continued their game level. The teacher gave the level target of the student and showed their score on the LCD screen, so they competed to get the highest

point with their friends. The teacher watched their progress and walked around the class to see the activity of the students. The teacher also supported the students that had problems with the application.

c) Observation

Observation will be done to find out some of the documents that influenced to actions, and also to describe the implementation of duolingo application as media in English teaching . At this stage, the researcher will conduct the data by observe the activities of students and teacher in learning process by using observation sheet (see on appendix 5). The observation will be done before and during the research. The first observation has done to students' activities and difficulties in English learning especially in mastery of vocabulary. While, for the next observation will be done during the research. The purpose of this observation is to know the improving student's English vocabulary through duolingo application.

d) Reflection

The last step is reflection. Reflection is used to know and gain feedback from previous activities that has been done before. In this case, the researcher will evaluate the planning, actions, and the data obtained from observation. The result of this evaluation can give the reflection for researcher to considering and helps the researcher to make decision.

The researcher will take the feedback and evaluate on everything that has been done. If the result did not reach the goal determined, there will be continued to the second cycle. In reflecting process, researcher and teacher discussed further some problems occur in the class. Thus, the reflection is able to be determined after

implementing the actions and observation outcomes. If the problems have not been resolved, continue the next cycle.

F. **Trustworthiness**

To establish the trustworthiness of data required the techniques. The implementation of examination techniques is based on a number of specific criteria. There are four criteria used are³⁶:

Credibility, it basically replaces the concept of internal validity of noncommittative. This criterion functions: first, to execute inquiry in such a way that the degree of confidence of the invention can be achieved; secondly, demonstrating the degree of confidence in the findings by the researchers' evidentiary evidence of the double reality under investigation.

Transferability, as an empirical problem it depends on the similarity between the sender and the receiver context. In order to make the diversion a researcher should seek and collect empirical events about the same context.

Dependability, the concept of dependence is broader than reliability. It is due to a review that in terms that the concept is taken into account everything that is on the reliability itself plus other factors that are involved.

Confirmability, subjectivities depend on one person, according to Scriven. In addition there are still elements of quality inherent in the concept of objectivity. It is unearthed from the notion that if something is an object, it means to be trustworthy, factual, and verifiable. Subjective means to be unreliable, or to be cheated. It is this latter understanding which is used as the foundation of the transfer of understanding of subjectivities into a certainty.

³⁶Lexy, J. 2009. Metode penelitian Kualitatif. Bandung : Remaja Rosda Karya. P 324

In this study researchers used the criteria of credibility with triangulation examination techniques. It assesses the sufficiency of data according to the convergence of multiple data collection procedure.³⁷ Triangulation is a technique of checking the data that uses something else outside the data for checking purposes or as a comparison against the data. The triangle in testing this credibility is interpreted as data from various sources in various ways, and at various times. Thus there are triangular sources, techniques, and time.

Researcher limits the technique on source triangulation. Triangulation by source mean comparing and checking the degree of confidence of information obtained through different times and tools in qualitative methods, it can be achieved through: 1) Compare the observed data with interview data. 2) Compare what people say in public with what they say personally. 3) Compare what people say about the research situation with what it says all time. 4) Compare the person's situation and perspective with the various opinions people. 5) Compare the results of interviews with the contents of related document

³⁷Sugiono. 2016. *Metode penelitian kuantitatif, kualitatif, dan R & B*. Bandung: Alfabeta. P. 273

CHAPTER IV

DATA ANALYSIS AND RESEARCH FINDINGS

A. The Data Description

The data that used in this research are qualitative and quantitative data. The qualitative data were taken from observation, documentation, and questionnaire. Meanwhile, the quantitative data were taken from the tests that conducted in each cycle. This research was conducted only in one class that consists of 30 students. This research was accomplished in two cycles. Each cycle was consisted of four steps, namely planning, action, observation, and reflection. The first cycle was conducted only in one meeting and the second cycle was also conducted in one meeting. In the last meeting of each cycle, the research gave the post test to the students to see the students' ability in writing.

1. The Quantitative Data

The quantitative data were taken from the tests. The tests were consisted of pre test and post test. The pre test was given before giving the treatment to the students and the post test was given in the last meeting of each cycle. The result of the students' score can be seen in the following table.

4.1. The Student's Score in the Pre-Test

The researcher gave a test in the pre-test. The number of the students who test was 30 . Here the students score of pre-test as follow:

Table 4.1

The students score in pre-test

No.	Initial Students' Name	Pre- Test	
		Score	Criteria Success (>80)
1.	ADL	35	Fail
2.	BP	45	Fail
3.	DI	35	Fail
4.	FA	80	Successful
5.	FR	80	Successful
6.	FY	50	Fail
7.	IF	45	Fail
8.	IS	45	Fail
9.	MA	40	Fail
10.	MDS	80	Successful
11.	MR	10	Fail
12.	MRI	55	Fail
13.	NS	45	Fail
14.	PM	30	Fail
15.	PR	35	Fail
16.	PRZ	40	Fail
17.	RA	80	Successful
18.	RAD	20	Fail
19.	RG	40	Fail
20.	SD	80	Successful
21.	SH	15	Fail
22.	SL	40	Fail
23.	SPR	70	Fail
24.	SR	40	Fail
25.	SS	45	Fail
26.	TI	80	Successful
27.	UK	35	Fail
28.	WH	40	Fail
29.	WN	35	Fail
30.	WS	75	Fail
	Total (X)	1445	
	Mean X	48,16	

From the table of pre-test, the total score of the students was 1445 and the number of the students who completed took the pre-test were 30 of students, to see the mean of the students in this test the researcher applied the following formula:

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

Where: X: The mean of the students

\sum : The total score

N: The number of students

So, the mean of the students was: $X = \frac{1445}{30} = 48,16$

From the analysis above knew that students' English vocabulary were still low. The mean of the students was 48,16 and the include fair level. And the number of the students who were competent in writing in was calculated by applying the following formula:

$$P = \frac{R}{T} \times 100\%$$

P = The percentage of students who get 80

R = The member of students who get 80 up

T = The total number of students who do the test.

$$p1 = \frac{6}{30} \times 100\% = 20\%$$

$$p2 = \frac{24}{30} \times 100\% = 80\%$$

Table 4.2 The Percentage of The Students' Score in Pre-Test

	Criteria	Total Students	Percentage
P ₁	Successful	6	20%
P ₂	Fail	24	80%
TOTAL		30	100%

From the percentage above known that the students who competent in English vocabulary were very low.

4.2.The Students' Score in Post Test I

Table 4.3**The Student Score in Post-Test I**

No.	Initial Students' Name	Post-Test I	
		Score	Criteria success (>80)
1.	ADL	65	Fail
2.	BP	80	Successful
3.	DI	60	Fail
4.	FA	85	Successful
5.	FR	85	Successful
6.	FY	65	Fail
7.	IF	65	Fail
8.	IS	80	Successful
9.	MA	80	Successful
10.	MDS	85	Successful
11.	MR	60	Fail
12.	MRI	80	Successful
13.	NS	80	Successful
14.	PM	70	Fail
15.	PR	80	Successful
16.	PRZ	65	Fail
17.	RA	85	Successful
18.	RAD	60	Fail
19.	RG	50	Fail

20.	SD	85	Successful
21.	SH	65	Fail
22.	SL	65	Fail
23.	SPR	80	Successful
24.	SR	70	Fail
25.	SS	80	Successful
26.	TI	80	Successful
27.	UK	60	Fail
28.	WH	65	Fail
29.	WN	50	Fail
30.	WS	80	Successful
	Total (X)	2160	
	Mean X	72	

From the table of post-test I , the total score of the students was 2160 and the number of the students who completed took the post-test I were 30 of students, to see the mean of the students in this test the researcher applied the following formula:

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

Where: X: The mean of the students

\sum : The total score

N: The number of students

So, the mean of the students was: $X = \frac{2160}{30} = 72$

From the analysis above knew that students' English vocabulary were still low. The mean of the students was 72 and the include fair level. And the number of the students who were competent in English vocabulary in was calculated by applying the following formula:

$$P = \frac{R}{T} \times 100\%$$

P = The percentage of students who get 80

R = The member of students who get 80 up

T = The total number of students who do the test.

$$p1 = \frac{15}{30} \times 100\% = 50\%$$

$$p2 = \frac{15}{30} \times 100\% = 50\%$$

Table 4.4 The Percentage of The Students' Score in Post-Test1

	Criteria	Total Students	Percentage
P ₁	Successful	15	50%
P ₂	Unsuccessful	15	50%
TOTAL		30	100%

From the analysis above knew that the students' English vocabulary got increasing. The mean of the students was 72. From the score who got 80 up were 15 students or it was 50% and 21 students got the score fewer than 80 or it was 50%. It could be concluded that the students' English vocabulary in got higher in post-test in cycle I than pre-test. But, the students' achievement in the post-test of cycle I was categorized unsuccessful. Because the percentage of the students who pass the passing grade only 50%, the researcher wanted the percentage of students who pass the passing grade was 73%. Therefore the next action continued on the cycle II.

4.3.The Students' Score in Post Test II

Table 4.5

The Student Score in Post-Test II

No.	Initial Students' Name	Post-Test II	
		Score	Criteria success (>80)
1.	ADL	80	Successful
2.	BP	80	Successful
3.	DI	80	Successful
4.	FA	95	Successful
5.	FR	85	Successful
6.	FY	70	Fail
7.	IF	85	Successful
8.	IS	85	Successful
9.	MA	80	Successful
10.	MDS	90	Successful
11.	MR	75	Fail
12.	MRI	85	Successful
13.	NS	85	Successful
14.	PM	85	Successful
15.	PR	85	Successful
16.	PRZ	85	Successful
17.	RA	90	Successful
18.	RAD	65	Fail
19.	RG	60	Fail
20.	SD	90	Successful
21.	SH	80	Successful
22.	SL	85	Successful
23.	SPR	90	Successful
24.	SR	75	Fail
25.	SS	85	Successful
26.	TI	90	Successful
27.	UK	75	Fail
28.	WH	75	Fail
29.	WN	60	Fail
30.	WS	80	Successful
	Total (X)		2430
	Mean X		81

From the table of pre-test, the total score of the students was 2430 and the number of the students who completed took the pre-test were 30 of students, to

see the mean of the students in this test the researcher applied the following formula:

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

Where: X: The mean of the students

\sum : The total score

N: The number of students

So, the mean of the students was: $X = \frac{2430}{30} = 81$

From the analysis above knew that students' English vocabulary increased. The mean of the students was 73,3 . And the number of the students who were competent in writing in was calculated by applying the following formula:

$$P = \frac{R}{T} \times 100\%$$

P = The percentage of students who get 80

R = The member of students who get 80 up

T = The total number of students who do the test.

$$p1 = \frac{22}{30} \times 100\% = 73,3\%$$

$$p2 = \frac{8}{30} \times 100\% = 26,6\%$$

Table 4.6 The Percentage of The Students' Score in Post-TestII

	Criteria	Total Students	Percentage
P ₁	Successful	22	73.3%
P ₂	Unsuccessful	8	26,6%
TOTAL		30	100%

From the percentage, the students' English vocabulary was classified on good level when doing the action research on cycle II. The students' score showed the increasing which could be determined that they showed the progress little by little. They got the increasing score in each cycle.

Table 4.7

The Students' Score in The Three Vocabulary Test

No.	Initial Students' Name	Score in Pre-Test	Score in Post-Test 1	Score in Post-Test 2
1.	ADL	35	65	80
2.	BP	45	80	80
3.	DI	35	60	80
4.	FA	80	85	95
5.	FR	80	85	85
6.	FY	50	65	70
7.	IF	45	65	85
8.	IS	45	80	85
9.	MA	40	80	80
10.	MDS	80	85	90
11.	MR	10	60	75
12.	MRI	55	80	85
13.	NS	45	80	85
14.	PM	30	70	85
15.	PR	35	80	85
16.	PRZ	40	65	85
17.	RA	80	85	90
18.	RAD	20	60	65
19.	RG	40	50	60
20.	SD	80	85	90
21.	SH	15	65	80
22.	SL	40	65	85
23.	SPR	70	80	90
24.	SR	40	70	75
25.	SS	45	80	85
26.	TI	80	80	90
27.	UK	35	60	75
28.	WH	40	65	75
29.	WN	35	50	60

30.	WS	75	80	80
	Total (X)	1445	2160	2430
	Mean X	48,16	72	81

Table 4.8 The Mean Score of Cycle I (Pre -Test and Post Test I) and Cycle II (PostTest II)

X	Pre-Test	Post-Test1	Post-TestII
Mean	48,16	72	81

The mean of the students' score in the post- test of cycle II was highest, so it could be said that the students' English vocabulary by using outlines technique improved from 48,16 to 81.

The number of competent the student was calculated by applying the following formula:

$$P = \frac{R}{T} \times 100\%$$

P = The percentage of students who get 80

R = The member of students who get 80 up

T = The total number of students who do the test.

The percentage of the increasing of students' writing ability could be seen as follows:

a. The percentage of competent students in the pre-test was:

$$p1 = \frac{6}{30} \times 100\% = 20\%$$

b. The percentage of the competent students in the post test I was:

$$p1 = \frac{15}{30} \times 100\% = 50\%$$

c. The percentage of the competent students in the post test II was:

$$p1 = \frac{22}{30} \times 100\% = 73,3\%$$

Table 4.9 The Percentage of Students Who Got Score Over 80

Listening Test	Percentage
First test (pre-test)	20%
Second test (post-test 1)	50%
Third test (post-test 2)	73,3%

From the table above, the result showed the increasing of the students' scores from the pre-test to the post-test of cycle I, post-test of cycle I to post-test cycle II. In the first test (pre-test) the students who got the score 80 up were 6 students of 30 students (20%). In the second test (post-test cycle I) the students who got the score 80 up were 15 students of 30 students (50%). In the third test (post-test cycle II) the students who got the score 80 up were 22 students of 30 students (73,3%). The increasing of the pre-test to the post-test of cycle I was about 30% and the increasing of post-test of cycle I to the post-test of cycle II was about 23,3%.

2. The Qualitative Data

The qualitative data were taken from observation sheet, interview sheet, and documentation. Those are gained within two cycles.

A. Observation

The observation was conducted to observe the activity of teacher and students during the learning process, include the students' behavior, and all activities during the learning process. Such as "students come on time. When the teacher teaches, the students pay attention to the teacher's explanation, and active in joining the learning process." Thus, the result of observation was collected as the data, which was used as a basic reflection. Observation done twice by using checklist and scale. From the result of the observation, it can be concluded that the teacher can present the material well, managed the class well and used the time effectively (it can be seen at appendix V).

B. Interview

There were two interview sessions was conducted. The first interview was done before conducting the research and the second one was done in the end of second cycle. The researcher interviewed the English teacher. In the first session, they were interviewed about their problems in listening. While the second sessions, they were interviewed about their respond or comments about the implementation of duolingo application.

This statement can be proved by the teacher's opinion about the lack of students' interest in studying English, but several of students have good interest in

studying English because they also follow the course. The next is students' achievement in vocabulary is less, and the last is the lack of facilities for English learning such as there is no language lab.

Based on the interview result, the students have limited words to know what speaker said in the text. They are still feel difficult to know the meaning of the text, not able to understand what speaker said by their own speed as native speakers. The students' interest in studying English is still low.

Based on the students' result above, the researcher want to improve students' achievement in vocabulary by using duolingo application, the teacher also made the situation in learning is comfortable, friendly, enjoy, relax, and easy to accept every information that they got (it can be seen at appendix III and IV).

C. Documentation

As a qualitative research, the researcher had to take the documentation of the research. The teacher collected some photos during teaching learning process.

1. Findings

After the researcher did the research, there are some findings that will describe in every cycle:

a. Cycle 1

1. Planning

Planning was the first step in the classroom action research. Planning had been flexible because it depends on circumstance in that school. After identification of the problem, the writer as the teacher has planned everything

needed in order to solve the students' problem faced. In this case, the English teacher as a collaborator gave some corrections to the researcher such as, in lesson plan on material that has given to the students is the text too long its depends on students' ability. In the material also, there are many difficult words that can make students getting bored quickly.

2. Action

After planning and setting the action, the researcher was implemented a set of action that has planned in the process of learning. The researcher was implemented duolingo application as media in teaching English vocabulary. The activities in this step are followed:

This research needs more than three-time treatments in order that the increase of the students' vocabulary achievement more significant and the students can get much vocabulary. Try out was conducted in order to measure the quality of the test used as the instrument and to determine which items should be revised for the pretest and posttest. After administering the pretest, the treatments were conducted for three times. When the teacher gave the treatment to the students, it seemed that they were interested in the materials. Duolingo application was presented with clear procedures.

At the first treatment, the students were told first what the Duolingo application is. The teacher introduced the rules in doing the application and demonstrated the application by giving the example. The teacher gave an example by the LCD screen and played Duolingo application, and then the teacher asked the students to answer the questions. The teacher and the students explained or translated the unknown words together. After that, the students have to work with

the laptop or the gadget device. For the student that did not bring the gadget can work together with their chair mate. Then the teacher explained the rule of Duolingo application.

Then the teacher makes sure that the students had understood the game and the procedures involved the rules. The teacher commands the students to begin the application. The students try to find new words. They should also complete each level less than 7 minutes, in order to the students focused at their level. The teacher announces the winner which has the highest points on Duolingo application, after that the teacher gives the evaluation. When teaching in the classroom, the researcher found that the students were enthusiastic in following the teaching learning process because they were not aware that they were studying.

3. Observation

The observation was done to observe the students' behavior and what the students' problem during the teaching learning process. The students getting bored when the researcher delivered the material, it caused the researcher took the time too long. The researcher also used the monotone activity in learning process.

4. Reflection

There are many corrections that given by English teacher as collaborator. As in planning the material is too long, and also too many unfamiliar words for the students. In the action, the researcher took the time too long in giving the material. And also in explanation, the researcher didn't master the classroom yet, the researcher only focused with her explanation without caring the students' understanding at all.

Here the researcher and collaborator exchanged the ideas that will be applied in the next cycle, to solve some corrections in cycle 1 that has done by the researcher. Such as in planning, make the text of material shorter in cycle 2 than cycle 1, minimized unfamiliar words in cycle 2. In action, managed the time in giving the material, gave the transcripts to the students before the researcher read the text manually and turning on the podcasts. Then, the collaborator suggested that the researcher has to master the classroom well, such as, the students' understanding by mixing the languages (English and Indonesian) to make sure the students' understanding, it aimed to achieve the purposes of using duolingo application in improving students' English vocabulary.

b. Cycle 2

After doing cycle 1, it was found that duolingo application was a good way in teaching vocabulary. It was supported by the result that showed the good score of the students. Therefore, in the cycle 1, several criterions had been not achieved, because the students not understand the question in duolingo .

The researcher also repaired the material in lesson plan, and some corrections that has mentioned by English teacher to the researcher.

In this cycle, teacher gave the students more motivation and also exploration about vocabulary. It was expected that the cycle 2 of action research would get better than the cycle 1, the action research steps were:

1. Planning

In this cycle, researcher prepared the lesson plan and emphasized the process of teaching learning students' listening. The topic of the study which discussed in cycle 2 was about "the compound noun, concrete noun, proper noun, and countable noun". In this cycle the researcher planned to change the session. The researcher made the new topic to make them accustomed by English language that would make them easy to understand. Here the researcher give the example from the material, then explained. In planning of this research, the researcher had been prepared: 1) The new topic, 2) An exercise about the topic in duolingo and 3) vocabulary test that consisted of 20 multiple choice.

2. Action

After being revised, the teacher began taught vocabulary by using duolingo application and gave the brainstorming. The researcher as the teacher introduced the topic to the students. The teacher did brainstorming about the topic which had been discussed. While the brainstorming, the teacher made some conversation to the students about what is the compound noun and concrete noun and give the example.

In the second meeting, the teacher did the same thing as the first treatment for the second treatment. The teacher told the students that they were going study about the vocabulary through Duolingo application. The teacher told the students to log in with their own account, and then continued their last level and tried to get the higher points than before. On this meeting, the teacher asked the students

to only used one gadget for two students, so they played Duolingo application in a pair.

In the third meeting, the teacher did the same thing as usual from beginning until closing. The students had to log in with their own account and then continued their game level. The teacher gave the level target of the student and showed their score on the LCD screen, so they competed to get the highest point with their friends. The teacher watched their progress and walked around the class to see the activity of the students. The teacher also supported the students that had problems with the application.

3. Observation

In cycle 2, the observation indicated that most of the students more active and enthusiastic in cycle 2. It caused the researcher did the revise adapted with collaborator's suggestions.

4. Reflection

In this step, there was feedback of the learning process taken from the result of observation, documentation, and data analysis of cycle 2. From the interview with the students after the implementation of English Podcasts, the students said that they more interest in listening by using English Podcasts. This statement was supported by their score or progress in the test. Every meeting their ability was increased, their interest and enthusiastic also increased. From some documentation, it was found that the students were serious during the learning process. All data about the use of duolingo application had been discussed. It was

concluded that the cycle could be stopped, because the students could understand and increase their interest and achievement in vocabulary.

So that, the researcher's finding in the research of using the duolingo in English vocabulary at VIII grade of MTs Guppi Pangkatan is the use of duolingo can be an effective media in learning process to improve students' ability in vocabulary.

B. Research Finding

The result was indicated that there was an improvement on the students' English vocabulary by using duolingo application. The mean of the first cycle was 72. It was still low, because the students still have difficulties. The mean of second cycle was 81. From the data could be seen that the students' score and the mean in second cycle were better than first cycle. The percentage of students who got point up to also grew up. In the pre-test, students who got up 80 were 6 students of 30 students (20%). In the post test of cycle I, students who got up 80 there were 15 students of 30 students (50%). In post-test II, students who got up 80 there were 22 of 30 students (73,3%). In other words, the students' ability was become well in the first meeting to the next meeting.

The researcher organized all the quantitative and qualitative data from each meeting. In every cycle, the researcher conducted vocabulary test, from the first test, it was found that the students' English vocabulary was still low.

They were confused how to develop their ideas, after they saw example from researcher and then transform the idea to be a good one. Next, the first cycle of classroom action research was conducted. In the first cycle most of students still has difficulties in answer the question of vocabulary. They did not understand

well about the meaning. But after teacher taught vocabulary by using duolingo application, they can understand how to use vocabulary in their ability, because teacher explained the generic structure. And the students' score of post-test I was better than pre-test.

Although most of students was understand about the lesson, but there were some students still have problem in writing descriptive text, it can be seen from the students' score in post-test I. So, the researcher did cycle II in order to make all of the students understand about the lesson well. After the researcher did the second cycle II, the result was better than first cycle. It can be seen from the students' score in post-test II, there were only 8 of 30 students have bad score. But, 22 students got score up ≥ 80

The research also analyzed qualitative data to support the research finding besides the quantitative data. The qualitative data were organized from the interview, observation, and documentation sheet and pictures. All of these was data indicated that the students given their attitude and response during teaching learning process. Based on the result of the quantitative and qualitative data. It was indicated that the action and applying of duolingo application as media teaching was improving.

D. Discussion

From the result of this research, the researcher found that the students who were taught through Duolingo application could achieve a better result in learning English vocabulary. The research had shown that Duolingo application could make the student more active and motivated in the process of learning.

It is supported by Clark who states that technology can increase the effectiveness of vocabularies teaching efforts. They also stated that technology can be useful, challenging, creative tool and resources in and around the classroom.³⁸

It also supported by Rodger who states that the use of game could develop activities to make students forget that they are in the class that is to relax the students by engaging them in stress. It means games offer a variety of interesting activities in which the students may explore many enjoyable aspects of learning. Games help the students keep on concentrating to what have been discussed during the hours.³⁹

This statement is supported by Wright who says that games help and encourage learners to sustain their interest and work. In this case, the students learn the vocabularies through the activities that they play in the games. This technique will make the students learn the vocabularies without realizing that they are learning.⁴⁰

So by applying Duolingo application, students will be more interested and challenged since they have to compete with each other. Besides, the students' scores in the posttest were higher than the students' score in the pretest. This means that Duolingo application gave a good contribution to the attainment of teaching learning English vocabulary. Although the master learning in this research was not too successful, the students' vocabulary achievement increased

³⁸ Clark, M. 2013. *The Use of Technology to Support Vocabulary Development of English Language Learners*. Education Masters. P 10

³⁹ Rodgers, S. Theodore. 2010. *Approaches and Methods in Language Teaching*. The University of Cambridge Press. P 1

⁴⁰ Wright, A., Betteridge D., & Buckby, M. 2006. *Games for Language Learning*. New York: Cambridge University Press. P 35

significantly after being taught through Duolingo application and it helped English teacher to raise the students' interest and motivation in learning English vocabulary.

Finally, it can be concluded that was a significant difference in the student's vocabulary achievement at the eight grade of MTs Guppi Pangkatan after being taught through Duolingo application

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

This chapter discusses the conclusions and the suggestions. The detailed explanation of each point is presented below.

A. Conclusions

Here the researcher got the conclusions:

Based on the result and discussion of the researcher, it could be concluded that the students' English vocabulary got improvement through duolingo application. It was showed from the mean of the students score in three test: pre-test 48,16 , post-test I 72 , post-test II 81 . And also score improvement who got score up to 80 pre-test in first cycle were 6 of 30 students (20%), post-test I in first cycle were 15 of 30 students (50%), post- test II in second cycle were 22 of 30 students (73.3%). Therefore, duolingo application in learning process can improved the students' English vocabulary.

The students' respond in language teaching when they were being taught by using duolingo application as media in teaching process was good. It could be seen from first cycle until the second cycle. The first cycle the researcher got the point that they still difficult in writing descriptive text. Beside that the students did not gave attention to the teacher. They were not understood to make a descriptive text. The students responses in learning process in cycle II was good it could be seen on the students responds in cycle II in qualitative data.

B. Suggestions

Based on the conclusion of the study, some suggestions will be directed toward the English teacher, and other researcher.

1. To English Teacher

The English teacher can use the duolingo as media in learning process. Because based on the result of the research, the use of duolingo application as learning media improve the students' English vocabulary. It also can support the teaching-learning process so that the students will be more interested in learning English.

2. To the Other Researcher

This study is mainly intended to describe how duolingo were implemented to improve the listening skill of VIII class, students of MTs Guppi Pangkatan. The other researchers may follow this study in different contexts in order to find more actions to improve the students' English vocabulary. This study may be used as one of the resources before the researchers do an action research related to the improving students' English vocabulary.

REFERENCES

- Abbad, M. Morris, D., & de Nahlik, C. 2012. Looking under the Bonnet:
Factors Affecting Student Adoption of E-Learning Systems in Jordan. The International Review of Research in Open and Distance Learning. Vol. 2. No. 12
- Algahtani, A.F. 2011. *Evaluating the Effectiveness of the E-learning Experience in Some Universities in Saudi Arabia from Male Students' Perceptions*, Durham: DurhamUniversity.
- Almosa, A. 2002. *Use of Computer in Education*. Riyadh: Future Education Library.
- Asnawir Dan M. Basyirudin Usman. 2002. *Media Pembelajaran*. Jakarta: Ciputan Press.
- Bajcsy, R. 2002. *Technology and Learning*. Washington DC: Department of Commerce.
- Bradley, C., Haynes, R., & Boyle, T. 2005. Adult multimedia learning with PDAs The user experience. In H. van der Merwe & T. Brown (Eds.), *Mobile technology: The future of learning in your hands, mLearn 2005 book of abstracts*. Cape Town, SouthAfrica: M-learn. Vol.4. No. 2
- Chapelle, C. 2001. *Computer Applications in Second Language Acquisition*. Cambridge:Cambridge University Press.
- Departemen Agama Republik Indonesia. 1989. Al-Qur'an Terjemah. Semarang: Cv Toha Putra Semarang.
- Falk, J. H. 2003. Personal meaning mapping. In G. Caban, C. Scott, J. H. Falk &

L. D. Dierking (Eds.), *Museums and creativity: A study into the role of museums in design education*. Australia: Powerhouse Publishing.

Guliani, Parul. 2017. *Duolingo looks to dominate the mobile education market with new flashcard app tinycards*.<http://en.wikipedia.org/wiki/Duolingo>.
Vol. 1. No. 4

H, Jakson And Ze Amvela,E. 2000. *Words, Meaning, And Vocabulary, An Introduction To Modern English Lexicology*. Cassell. Taylor: Francis Group.

JuhadiI, N., Samah, A & Sarah, H. 2007. Use of Technology, Job Characteristics and work outcomes: A case of Unitary Instructors. *International Review of business Research papers*. Vol. 3. No. 2.

Richads, J And Shcmidt,R. 2002. *Longman Dictionary of Language Teaching & Applied Linguistic*. London : Oxford University .

Liaw, S.S., Huang, H.M. 2011. Exploring the World Wide Web for on-line learning: a perspective from Taiwan. *Educational Technology* . Vol. 40. No. 3.

Marc, J. R. 2002. *Book review: e-learning strategies for delivering knowledge in the digital age. Internet and Higher Education*. Cambridge : Cambridge University press.

Maltz, L, Deblois, P. & The Educause Current Issues Committee. 2005. Top Ten It Issues. *Educause Review*. Vol.40. No.1.

Carten, Mc. Jeanne. 2007. *Teaching Vocabulary*.United Stated of America : Cambrige University Press.

- Naismith, L., Sharples, M., & Ting, J. 2005. Evaluation of CAERUS: A context aware mobile guide. In H. van der Merwe & T. Brown (Eds.), *Mobile technology: The future of learning in your hands, mLearn 2005 book of abstracts*. Cape Town, South Africa: mLearn. Vol. 5. No. 2
- Newman, S & Dwyer, J. 2009. *Missing in Action Vocabulary Instruction In Pre-K. The Reading Tacher*. Cambridge: Cambridge University
- Notion, I.S.P. 2001. *Learning Vocabulary In Other Language*. Cambridge : Cambridge University Press.
- Nushi, Musa and Mohamad Hosein Eqbali. 2015. Duolingo: a mobile application to assist second language learning *Teaching English with Technology*. Vol. 5. No. 3.
- Von Ahn, Luis—Duolingo|| , accessed from <http://www.pando.com/Pando> Say what Duolingo points to data's important role in online education.html. <http://blog.duolingo.com/> accessed on March 1. 2015 International Journal Of English Linguistics. 2015. Vol. 3. No. 1.
- Schmit, N,N. 2000. *Vocabulary In Language*. Cambridge: Cambridge University Press.
- Syukur, Fatah. 2005. *Teknologi Pendidikan*. Semarang: Rasail.
- Zeitoun, H. 2008. *E-learning: Concept, Issues, Application, Evaluation*, Riyadh: Dar Alsolateah publication.

APPENDICES

Appendix I

LESSON PLAN (CYCLE I)

Course Identity

School	: MTs Guppi Pangkatan
Subject	: English
Class/ Semester	: VIII/I
Academic year	: 2018/2019
Aspect	: listening and writing
Material	: vocabulary of noun
Time allocation	: 2x40 minutes

A. Standard Competency

Understand the meaning of the conventional expression for transactional and interpersonal as simple dialogue text, and learning material on the duolingo.

B. Basic Competence

1. Responding to the meaning of material accurately, fluently, and acceptable in simple short functional spoken of context day.
2. Expresses the moral in duolingos material using the variety of oral language in different contexts daily life-days.

C. Indicator

Listening to certain information from the duolingo material.

Identify specific information from the duolingo.

Writing simple vocabulary about noun.

D. Learning Purpose

By the end of the lesson the students will be able to:

- Know the material about noun
- Enrich their vocabulary

E. Character of Students Expected

1. Discipline.
2. Respect.
3. Diligence.
4. Responsibility.
5. Carefulness.

F. Lesson Source

1. dictionary
2. duolingo application

G. Media

Load speaker, laptop, smart phone (teacher belong), empty paper

H. Teaching learning activity

Opening Activity

Apperception

1. Praying.
2. The teacher will greet and check attendance list of the students.
3. The teacher will ask some leading questions related to noun.
4. The teacher will explain the material related to noun that using in learning activity.
5. The teacher will ask the students to play their Duolingo

Core activity

Exploration

1. Students complete task in Duolingo and it will be done individually
2. Students determine individual improvement

Implementation

1. Pre activities

1. Asking leading questions related to the material of noun
2. Teacher gives students learning objectives which are required in teaching and learning process.

2. While activities

1. Teacher ask the student to pay attention to the material about noun
2. Teacher explains the material about noun
3. Teacher asks the students to play their Duolingo on their smartphone
4. Teacher asks the student to open the category that will be learned today.
The category is Frasa
5. Teacher asks the students to mention the vocabularies in the application
6. Teacher asks students to rewrite vocabularies on their note book
7. Teacher pronoucing the vocabularies
8. After that, teacher asks students to repeat the pronunciation of each vocabulary
9. Teacher asks students to do the excercise in Duolingo Application about 15 minutes
10. The teacher monitors students' work
11. Teacher gives suggestion or appreciation to the students at the end the work
12. After the completion of material today, the teacher asks the students again whether they are understand with the lesson
13. The teacher asks students' difficulties at the lesson

3. Post Activities

1. Teacher check the students' understanding and the response
2. The teachers conclude learning materials and strengthen the material

6. Closing

1. The teacher conveys a lesson plan for the next meeting to cultivate students' curiosity to read

2. The teacher conveys the students to play their Duolingu at home, or everywhere
3. The teacher closed the classroom meeting on this day by reading alhamdulillah

7. Material of noun

Definition of noun is a noun in English used to define people, places, animals, plants, things, the quality of things, or an activity. (Eg: man = man, house = house, cat = cat, roses = roses, the quality = quality, writing = writing, etc.)

Kinds of Noun and Functions

- Abstract Noun (an intangible noun)
serves to show an intangible, but imaginable object.

Examples: life, love, friendship, relationship, and so on. Sample

sentence: Love is important thing in our life.

- Collective noun (collective noun)
serves as a noun that has a compound meaning.

Examples: group, class, flock, battalion and so on. Sample sentence: My

school has many classes

- Common noun (common noun),
which is usually the most memorable - because this type of noun is

among the most basic and first taught.

Example: teacher, flower, car, building, motorcycle, chair, and so on.

Sample sentence: She bought a new car

8. Exercise

Screen shoot of duolingo



I. Assessment

Form : multiple choice.

Technique : Students will be assigned to answer the question on multiple choice.

Aspect : Listening skill and writing.

Instructional scoring

1. The questions are 20 questions.
2. The correct answer gets 5 points.
3. Totally maximal score is 100 points.
4. Pattern of scoring.

$$\text{Students' score} = \frac{\text{The correct answers}}{\text{The amount of questions}} \times 100$$

5. The explanation of scoring.

No	Explanation	Score
1	Each of correct answer	5
2	False answer	0
3	No answering	0

Pangkalan, of July 2018

Be cognizant of Principal

English Teacher

Espidiani Munthe, S.Pd

wahiddin Ritonga, S.Pd

NIP.

NIP.

Researcher

Ismasiah Harahap

NIM. 34144024

APPENDIX II

LESSON PLAN (CYCLE I)

Course Identity

School	: MTs Guppi Pangkatan
Subject	: English
Class/ Semester	: VIII/I
Academic year	: 2018/2019
Aspect	: listening and writing
Material	: vocabulary of noun
Time allocation	: 2x40 minutes

J. Standard Competency

Understand the meaning of the conventional expression for transactional and interpersonal as simple dialogue text, and learning material on the duolingo.

K. Basic Competence

3. Responding to the meaning of material accurately, fluently, and acceptable in simple short functional spoken of context day.
4. Expresses the moral in duolingos material using the variety of oral language in different contexts daily life-days.

L. Indicator

Listening to certain information from the duolingo material.

Identify specific information from the duolingo.

Writing simple vocabulary about noun.

M. Learning Purpose

By the end of the lesson the students will be able to:

- Know the material about noun
- Enrich their vocabulary

N. Character of Students Expected

6. Discipline.
7. Respect.
8. Diligence.
9. Responsibility.
10. Carefulness.

O. Lesson Source

3. dictionary
4. duolingo application

P. Media

Load speaker, laptop, smart phone (teacher belong), empty paper

Q. Teaching learning activity

Opening Activity

Apperception

6. Praying.
7. The teacher will greet and check attendance list of the students.
8. The teacher will ask some leading questions related to noun.
9. The teacher will explain the material related to noun that using in learning activity.
10. The teacher will ask the students to play their Duolingo

Core activity

Exploration

3. Students complete task in Duolingo and it will be done individually
4. Students determine individual improvement

Implementation

1. Pre activities

3. Asking leading questions related to the material of noun
4. Teacher gives students learning objectives which are required in teaching and learning process.

2. While activities

14. Teacher ask the student to pay attention to the material about noun
15. Teacher explains the material about noun
16. Teacher asks the students to play their Duolingo on their smartphone
17. Teacher asks the student to open the category that will be learned today.
The category is Frasa
18. Teacher asks the students to mention the vocabularies in the application
19. Teacher asks students to rewrite vocabularies on their note book
20. Teacher pronouncing the vocabularies
21. After that, teacher asks students to repeat the pronunciation of each vocabulary
22. Teacher asks students to do the excercise in Duolingo Application about 15 minutes
23. The teacher monitors students' work
24. Teacher gives suggestion or appreciation to the students at the end the work
25. After the completion of material today, the teacher asks the students again whether they are understand with the lesson
26. The teacher asks students' difficulties at the lesson

3. Post Activities

3. Teacher check the students' understanding and the response
4. The teachers conclude learning materials and strengthen the material

6. Closing

4. The teacher conveys a lesson plan for the next meeting to cultivate students' curiosity to read

5. The teacher conveys the students to play their Duolingu at home, or everywhere
6. The teacher closed the classroom meeting on this day by reading alhamdulillah

7. Material of noun

Definition of noun is a noun in English used to define people, places, animals, plants, things, the quality of things, or an activity. (Eg: man = man, house = house, cat = cat, roses = roses, the quality = quality, writing = writing, etc.)

Kinds of Noun and Functions

- The Compound nouns are a combination of two words, where the first and both are assigned, Sample sentence: This restaurant has some men servants.
- Concrete Noun (tangible noun) to show objects that have a form with criteria can be seen or touched.

Examples: people (people), books (books), car (car), and so forth.

Sample sentence: Reading a book is my hoby

- Proper noun (name noun) ie name of person, school, company, city, country, etc.

Example: Marry, Indonesia, Facebook, and so on.

Sample sentence: His name is John

- Countable nouns are countable objects, both singular and plural. Sample sentence: My brother drinks a glass of milk.

Uncountable nouns are things that can not be calculated, for example:

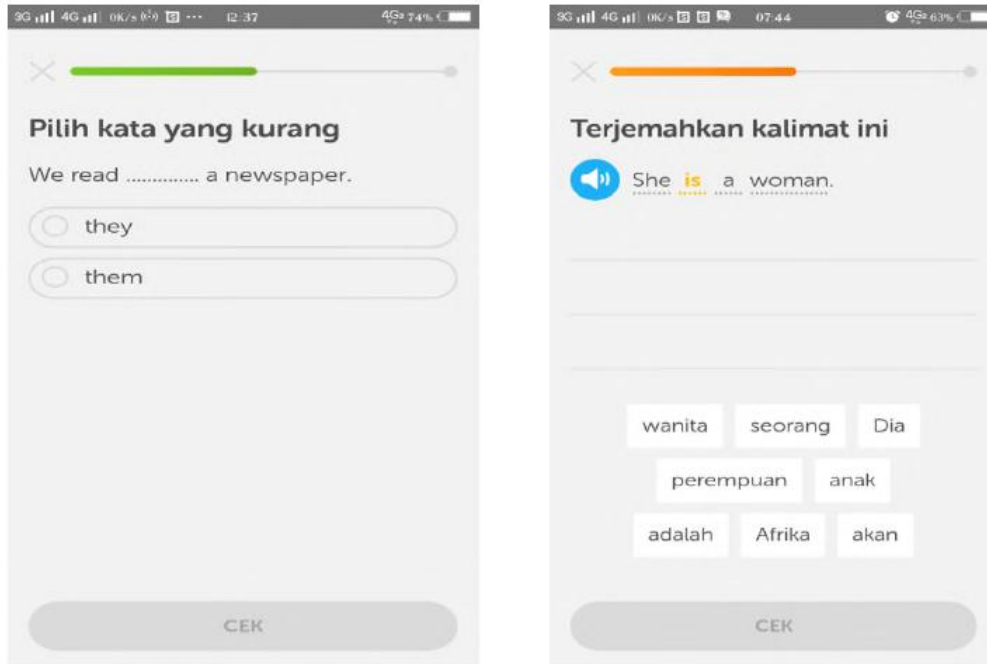
water (water), water (air), sugar (sugar), and others. Usually can be added

with some (some) or much (much for something that can not be counted.) Sample

sentence: I put a bottle of water on the table.

8. Exercise

Screen shoot of duolingo



R. ssesment

Form : multiple choice.

Technique : Students will be assigned to answer the question on multiple choice.

Aspect : Listening skill and writing.

Instructional scoring

1. The questions are 20 questions.
2. The correct answer gets 5 points.
3. Totally maximal score is 100 points.
4. Pattern of scoring.

$$\text{Students' score} = \frac{\text{The correct answers}}{\text{The amount of questions}} \times 100$$

5. The explanation of scoring.

No	Explanation	Score
1	Each of correct answer	5
2	False answer	0
3	No answering	0

Pangkalan, of July 2018

Be cognizant of Principal

English Teacher

Espidiani Munthe, S.Pd

wahiddin Ritonga, S.Pd

NIP.

NIP.

Researcher

Ismasiah Harahap

NIM. 34144024

APPENDIX III

SOAL PRE-TEST

Name :

Class :

I. Choose The Correct Answer With Crossing (X) a, b, d, or d :

- 1) _____ always comes on time.
 - a. Andy
 - b. Andy and Amy
 - c. The students
 - d. I
- 2) _____ am not American.
 - a. I
 - b. We
 - c. They
 - d. He
- 3) _____ are currently learning Chinese.
 - a. Billy
 - b. Beth and her sister
 - c. The boy
 - d. My cousin
- 4) _____ has always been such a sweet boy.
 - a. Danny's daughter
 - b. He
 - c. Danny and Dylan
 - d. She
- 5) Emily's _____ loves chasing mice every day.
 - a. Car
 - b. Kite
 - c. Cat
 - d. House
- 6) Rina : I want to wear my white gown to Amanda's party , what do you think?

Lisa : I think the red one is better.

Rina : Ok. I will the red gown

- a. wrap
- b. wear
- c. go
- d. Give

7) The carpet is I want to clean it.

- a. large
- b. dirty
- c. shiny
- c. soft

8) We often watch In the evening.

- a. Newspaper
- c. Magazine
- b. Radio
- d. Television

9) My father always reads every morning.

- a. Radio
- c. Computer
- b. Newspaper
- d. Television

10) . Ana is a tailor. She makes

- a. Clothes
- c. Bag
- b. Belt
- d. Ice cream

11) Andi reads the English book in the....

- a. Library
- c. Canteen
- b. Market
- d. Bathroom

12) Diana's barbie is broken. Diana is very now.

- a. Confuse
- c. Sad

19) This room is dark, please turn on the...

- a. Lamp
- b. Fan
- c. Door
- d. AC

20) The students write their lesson on the....

- a. Chair
- b. table
- c. Blackboard
- d. cupboard

Key Answer of pre-test

- | | |
|--------------|--------------|
| 1. A | 11. A |
| 2. A | 12. C |
| 3. B | 13. B |
| 4. A | 14. D |
| 5. C | 15. D |
| 6. B | 16. C |
| 7. B | 17. C |
| 8. D | 18. A |
| 9. B | 19. A |
| 10. A | 20. B |

9. A: Can you help me?

B: Yes of course. What can I do for you?

A: Please, ... this bag to my room.

B: Yes sir.

- | | |
|---------|----------|
| a. Help | c. Give |
| b. Has | d. Bring |

10. Indah ... the match in National Olimpiade. She is very happy.

- | | |
|-----------|---------------|
| a. Jumped | c. Lost |
| b. Won | d. Celebrated |

11. If you study hard, you will be in your examination.

- | | |
|--------------|------------|
| a. Unsuccess | c. Success |
| b. Sad | d. Stupid |

12. Cut up onion and chilli into small pieces. Kata bergaris bawah bermakna

- | | |
|-----------|------------|
| a. Daging | c. Bawang |
| b. Cabai | d. Kentang |

13. Grind together salt, sugar, pepper, and coriander. Kata coriander bermakna ...

- | | |
|-------------|-----------|
| a. Garam | c. Merica |
| b. Ketumbar | d. Gula |

14. This room is hot, please turn on the ...

- | | |
|---------|---------------|
| a. AC | c. Lamp |
| b. Door | d. Television |

15. Mrs. Wono is very famous for the delicious backed brownies. Kata Mrs. Wono termasuk jenis kata

- | | |
|--------------|-----------|
| a. Noun | c. Adverb |
| b. Adjective | d. Verb |

16. Fry the spices until aromatic. Kata *spices* termasuk jenis kata

- | | |
|--------------|---------|
| a. Adjective | c. Noun |
| b. Adverb | d. Verb |

17. At twelve o'clock. You must cook rice for lunch. Kata *O'clock* termasuk jenis kata
- a. Adverb
 - b. Adjective
 - c. Verb
 - d. Noun
18. Cut up vegetable into small pieces. Kata bergaris bawah termasuk jenis kata
- a. Adverb
 - b. Noun
 - c. Verb
 - d. Adjective
19. I hate _____ because I am not good dealing with a lot of numbers.
- a. Mathematics
 - b. English
 - c. Art
 - d. History
20. He really forgot his _____ , so he was embarrassed when his date had to pay for their dinner.
- a. Keys
 - b. Kids
 - c. Car
 - d. Wallet

Key Answer of post-test I

- | | |
|--------------|--------------|
| 1. D | 11. C |
| 2. D | 12. C |
| 3. D | 13. B |
| 4. B | 14. A |
| 5. B | 15. A |
| 6. C | 16. C |
| 7. C | 17. A |
| 8. B | 18. C |
| 9. D | 19. A |
| 10. B | 20. D |

Appendix V

SOAL POST TEST (Cycle 2)

Name :

Class :

I. Choose the correct answer with crossing (X) a,b,c, or d!

1. An _____ is a person who writes stories in books for either knowledge or entertainment.
a. Author
b. Bookkeeper
c. Accountant
d. Actor
2. The garden so I want clean it.
a. Large
b. Shiny
c. Dirty
d. Soft
3. We often hear ... in the morning.
a. Newspaper
b. Radio
c. Magazine
d. Tele vision
4. My grandmother always calls my father by....
a. Radio
b. Telephone
c. Television
d. Computer
5. Ridho is chef. He makes....
a. Shoes
b. Bag
c. BBQ
d. Belt
6. Rita buys a medicine in the....
a. Library
b. Mall
c. Dispensary
d. School
7. Raffi's robot is broken. He is very now.
a. Confuse
b. Happy
c. Sad
d. Charm
8. John's father is carpenter. He cut ... to make a chair.
a. Wood
b. Leaf
c. Flower
d. Ion

9. A: Can you help me?
 B: Yes of course. What can I do for you?
 A: Please, ... this bag to my room.
 B: Yes sir.
- | | |
|---------|----------|
| a. Help | c. Give |
| b. Has | d. Bring |
10. Indah ... the match in National Olimpiade. She is very happy.
- | | |
|-----------|---------------|
| a. Jumped | c. Lost |
| b. Won | d. Celebrated |
11. If you study hard, you will be in your examination.
- | | |
|--------------|------------|
| a. Unsuccess | c. Success |
| b. Sad | d. Stupid |
12. Cut up onion and chilli into small pieces. Kata bergaris bawah bermakna
- | | |
|--------------|------------|
| a. Potongan | c. Bentuk |
| b. Pekerjaan | d. Pilihan |
13. Grind together salt, sugar, pepper, and coriander. Kata pepper bermakna ...
- | | |
|-------------|-----------|
| a. Garam | c. Merica |
| b. Ketumbar | d. Gula |
14. This room is dark, please turn on the ...
- | | |
|---------|---------------|
| a. AC | c. Lamp |
| b. Door | d. Television |
15. The teacher write the lesson on the ...
- | | |
|----------|---------------|
| a. Chair | c. Cupboard |
| b. Floor | d. Blackboard |
16. And should I press it down? Kata press termasuk jenis kata
- | | |
|--------------|-----------|
| a. Noun | c. Adverb |
| b. Adjective | d. Verb |
17. Remember, don't take your foot off the clutch before you've pressed the accelerator lightly. Kata *take* termasuk jenis kata
- | | |
|--------------|---------|
| a. Adjective | c. Noun |
| b. Adverb | d. Verb |

18. My left foot or the right one? Kata *left* termasuk jenis kata
- a. Adverb
 - b. Adjective
 - c. Verb
 - d. Noun
19. Cut up vegetable into small pieces. Kata bergaris bawah termasuk jenis kata
- a. Adverb
 - b. Noun
 - c. Verb
 - d. Adjective
20. Chop up garlic into a very thin pieces. Kata *thin* termasuk jenis kata
- a. Adjective
 - b. Adverb
 - c. Verb
 - d. Noun

Key Answer Post-Test II

- | | |
|-------|-------|
| 1. A | 11. C |
| 2. C | 12. A |
| 3. B | 13. C |
| 4. B | 14. C |
| 5. C | 15. D |
| 6. C | 16. D |
| 7. C | 17. D |
| 8. A | 18. D |
| 9. D | 19. B |
| 10. B | 20. A |

APPENDIX VI

Interview to the Teacher

1. Why do you like the English subject for teaching?
 - Karena bahasa itu merupakan bagian dari sosial dengan adanya bahasa maka dapat mempersatukan kita sebagai saudara terutama bahasa Inggris kita bisa berkomunikasi dengan orang luar negeri.
2. What is your problem in teaching English?
 - Masalahnya karena fasilitas yang kurang memadai, bersyukur sekali jika di sekolah ini ada laboratorium bahasa, atau setidaknya ada ruangan khusus yang di dalamnya tersedia proyektor dan speaker setidaknya. Karena ada banyak materi dari internet yang bisa ditampilkan untuk anak-anak sebagai materi pembelajaran.
3. What is your media in teaching English?
 - Sejauh ini media yang digunakan buku, whiteboard, script dan audio, computer, scrabble, photos..
4. Are the students like to study English?
 - Sebagian suka dan mau belajar dengan serius dan sebagiannya maunya bermain-main saja
5. Is there any problem in teaching vocabulary as long as you teach English?
 - Masalah dalam pembelajaran vocabulary yang utama adalah kurangnya niat belajar siswa dikarenakan fasilitas di sekolah yang belum terlengkapi.

6. What media you use in teaching English vocabulary?

- Biasanya itu menggunakan media gambar terkadang video dan lainnya

7. What do you think about the learning by using duolingo application?

- Menurut saya duolingo merupakan alat pembelajaran yang bagus dan efektif, terutama untuk mendukung pembelajaran bahasa inggris dan yang terpenting itu belajar vocabulary karena jika kurang vocabulary maka pemahaman belajar juga kurang.

8. What do you like of it? Could you tell me the reason?

- Menurut saya duolingo dapat menarik perhatian siswa, meningkatkan motivasi siswa, menambah kosakata siswa, juga meningkatkan kemampuan mendengar dan memahami bahasa inggris. Selain itu, siswa bisa menyerap informasi dan pengetahuan lain dari apa yang di dengar atau dari script yang dilihat/ dibaca.

APPENDIX VII

THE TRANSCRIPT

Interview to the Student

1. Do you like to study English? Give your reason!
 - Student 1: Sangat suka, karena bahasa Inggris adalah bahasa yang terkenal dan digunakan dalam bahasa computer.
 - Student 2: Ya, karena bahasa Inggris digunakan untuk bahasa Internasional diseluruh dunia.
 - Student 3: Tidak, karena tidak tahu artinya.

2. How the teacher teaches you English?
 - Student 1: Sangat baik, karena guru kami membuat kami memahami bahasa Inggris.
 - Student 2: Sangat baik, karena tidak hanya mempelajari dan juga cara membacanya.
 - Student 3: Sangat baik, karena dapat membuat semakin pintar.

3. What is your problem in learning English especially in vocabulary?
 - Student 1: Pada saat berbicara dengan orang yang menggunakan bahasa Inggris.
 - Student 2: Masalah yang saya rasakan dalam bahasa Inggris terutama dalam kosakata bahasa Inggris, saya sangat kurang
 - Student 3: Kecepatan yang bicara dalam pengucapannya.

4. What do you think about learning English vocabulary by using duolingo application?
 - Student 1: Sangat bagus, karena kita bisa langsung mempraktekkannya.
 - Student 2: Sangat kreatif, karena dapat melatih cara membaca bahasa Inggris.

➤ Student 3: Sangat bagus, walau sedikit rumit.

5. Do you like it? Why? Give the reason!

➤ Student 1: Ya, karena tidak bosan dalam mendalami bahasa inggris dan tidak perlu banyak menghafal.

➤ Student 2: Ya, karena saya suka melihat gambar-gambar.

➤ Student 3: Ya, karena sangat menarik.

APPENDIX VIII

Observation Sheet cycle 1

Subject : English

Class : VIII MTs Guppi Pangkatan

1= poor 2=fair 3=good

No	The Aspect of Supervision	Cycle 1		
		1	2	3
1.	The teacher motivates the students about the importance of vocabulary.		✓	
2.	The teacher explains the material to the students.			✓
3.	The teacher gives the explanation about the duolingo as learning media.		✓	
4.	The teacher applies the podcast English as media in listening learning process.			✓
5.	The teacher observes the students during teaching and learning process.			✓
6.	The teacher helps the students when they find some problems in learning process.			✓
7.	The teacher conclude the material and close the meeting.			✓
8.	The students pay attention to the teacher's explanation.			✓
9.	The students are active in asking the question about the material to the teacher.		✓	
10.	The students were enthusiast to do their assignment.			✓
11.	The students were motivated in studying listening by using duolingo.			✓
12.	The students were participle in teaching learning process.		✓	

1. Cycle 1

To know the value of the teacher and students activities in cycle I,
it can be calculated by using formula :

$$\text{Score} = \frac{\text{number of score}}{\text{total score}} \times 100 \%$$

$$\text{Score} = \frac{15}{30} \times 100 \%$$

$$= 50\%$$

Note : Score < 50 % = fair

Score 51% - 70% = good

Score 71 % -100 % = very good

Based on the data above, the teacher and students has done all of activities
fair, because the percentage of the teacher and students were 50 %.

Appendix IX

Observation Sheet in cycle 2

Subject : English

Class : VIII MTs Guppi Pangkatan

1= poor 2=fair 3=good

No	The Aspect of Supervision	Cycle 2		
		1	2	3
1.	The teacher motivates the students about the importance of vocabulary.			✓
2.	The teacher explains the material to the students.			✓
3.	The teacher gives the explanation about the duolingo as learning media.		✓	
4.	The teacher applies the podcast English as media in listening learning process.			✓
5.	The teacher observes the students during teaching and learning process.			✓
6.	The teacher helps the students when they find some problems in learning process.			✓
7.	The teacher conclude the material and close the meeting.			✓
8.	The students pay attention to the teacher's explanation.		✓	
9.	The students are active in asking the question about the material to the teacher.		✓	
10.	The students were enthusiast to do their assignment.			✓
11.	The students were motivated in studying listening by using duolingo.			✓
12.	The students were participle in teaching learning process.			✓

Cycle 2

To know the value of the teacher and students activities in cycle 2,
it can be calculated by using formula :

$$\text{Score} = \frac{\text{number of score}}{\text{total score}} \times 100 \%$$

$$\text{Score} = \frac{22}{30} \times 100 \%$$

$$= 73,3\%$$

Note : Score < 60% = fair

Score 61% - 70% = good

Score 71 % -100 % = very good

Based on the data above, the teacher and students has done all of activities
very good, because the percentage of the teacher and students were 73%.

APPENDIX X

**THE SCHEDULE OF RESEARCH AT MTs GUPPI PANGKATAN IN
ACADEMIC YEAR 2018/2019**

Day / Date	Activities
Monday, July 09 th 2018	<ul style="list-style-type: none"> • Meet with the principles of MTs Pangkatan to ask the permission for doing the research. • Meet the English teacher of VIII grade to talk about the material will be teaching. • Interview the English teacher of VIII grade.
Tuesday , July 10 th 2018	<ul style="list-style-type: none"> • The first meeting in VIII grade students of MTs Guppi Pangkatan. • Give the pre-test to the students at VIII. • Interview the students of VIII grade (the first meeting).
wednesday, July 11 nd 2018	<ul style="list-style-type: none"> • The use of duolingo as learning media in vocabulary learning process. Teacher introduces duolingo as listening learning media. • Do the activity as planned in lesson plan of cycle 1.
thursday, July 12 th 2018	<ul style="list-style-type: none"> • Giving the post-test 1 in the first cycle. • Discuss about the test that have done.
Monday, July 16 th 2018	<ul style="list-style-type: none"> • Do the activity as planned in lesson plan of cycle 2.
Tuesday, July 17 th 2018	<ul style="list-style-type: none"> • Giving the post-test 2 in the second cycle. • Discuss about the test that have done. • Interview the student about the use of duolingo as vocabulary learning media.
wednesday, 18 July th 2018	<ul style="list-style-type: none"> • Interview the teacher about the use of duolingo as vocabulary learning media.

Saturday , 21 July 2018	<ul style="list-style-type: none">• Say goodbye and thanks to the Principle of MTs Guppi Pangkatan, English teacher and the side who helped in this research.
-------------------------	---

Pangkalan, July 21th 2018

The Researcher

Ismasiah Harahap

NIM 34144024

APPENDIX XI

LIST OF INITIAL STUDENTS

No.	Initial Students' Name
1.	ADL
2.	BP
3.	DI
4.	FA
5.	FH
6.	FR
7.	FY
8.	IF
9.	IS
10.	LF
11.	MA
12.	MDS
13.	MR
14.	MRI
15.	NS
16.	PM
17.	PR
18.	PRZ
19.	RA
20.	RAD
21.	RG
22.	SD
23.	SH
24.	SL
25.	SPR
26.	SR
27.	SS
28.	TI
29.	UK
30.	WH
31.	WN
32.	WS

APPENDIX XII**THE STUDENTS' ATTENDANCE LIST**

No.	Initial Students' Name	MEETING I	MEETING II	MEETING III	MEETING IV	MEETING V
1.	ADL	✓	✓	✓	✓	✓
2.	BP	✓	✓	✓	✓	✓
3.	DI	✓	✓	✓	✓	✓
4.	FA	✓	✓	✓	✓	✓
5.	FR	✓	✓	✓	✓	✓
6.	FY	✓	✓	✓	✓	✓
7.	IF	✓	✓	✓	✓	✓
8.	IS	✓	✓	✓	✓	✓
9.	LF	✓	✓	✓	✓	✓
10.	MDS	✓	✓	✓	✓	✓
11.	MR	✓	✓	✓	✓	✓
12.	MRI	✓	✓	✓	✓	✓
13.	NS	✓	✓	✓	✓	✓
14.	PM	✓	✓	✓	✓	✓
15.	PR	✓	✓	✓	✓	✓
16.	PRZ	✓	✓	✓	✓	✓
17.	RA	✓	✓	✓	✓	✓
18.	RAD	✓	✓	✓	✓	✓
19.	RG	✓	✓	✓	✓	✓
20.	SD	✓	✓	✓	✓	✓
21.	SH	✓	✓	✓	✓	✓
22.	SL	✓	✓	✓	✓	✓
23.	SPR	✓	✓	✓	✓	✓
24.	SR	✓	✓	✓	✓	✓
25.	SS	✓	✓	✓	✓	✓
26.	TI	✓	✓	✓	✓	✓
27.	UK	✓	✓	✓	✓	✓
28.	WH	✓	✓	✓	✓	✓
29.	WN	✓	✓	✓	✓	✓
30.	WS	✓	✓	✓	✓	✓

APPENDIX XIII

THE RESULT OF STUDENTS' SCORE IN PRE-TEST, POST-TEST 1,
AND POST-TEST 2

No.	Initial Students' Name	CYCLE I				CYCLE II	
		Pre-Test	Criteria success (>8,0)	Post-Test 1	Criteria success (>8,0)	Post Test 2	Criteria success (>8,0)
1.	ADL	35	Fail	65	Fail	80	Successful
2.	BP	45	Fail	80	Successful	80	Successful
3.	DI	35	Fail	60	Fail	80	Successful
4.	FA	80	Successful	85	Successful	95	Successful
5.	FR	80	Successful	85	Successful	85	Successful
6.	FY	50	Fail	65	Fail	70	Fail
7.	IF	45	Fail	65	Fail	85	Successful
8.	IS	45	Fail	80	Successful	85	Successful
9.	MA	40	Fail	80	Successful	80	Successful
10.	MDS	80	Successful	85	Successful	90	Successful
11.	MR	10	Fail	60	Fail	75	Fail
12.	MRI	55	Fail	80	Successful	85	Successful
13.	NS	45	Fail	80	Successful	85	Successful
14.	PM	30	Fail	70	Fail	85	Successful
15.	PR	35	Fail	80	Successful	85	Successful
16.	PRZ	40	Fail	65	Fail	85	Successful
17.	RA	80	Successful	85	Successful	90	Successful
18.	RAD	20	Fail	60	Fail	65	Fail
19.	RG	40	Fail	50	Fail	60	Fail
20.	SD	80	Successful	85	Successful	90	Successful
21.	SH	15	Fail	65	Fail	80	Successful
22.	SL	40	Fail	65	Fail	85	Successful
23.	SPR	70	Fail	80	Successful	90	Successful
24.	SR	40	Fail	70	Fail	75	Fail
25.	SS	45	Fail	80	Successful	85	Successful
26.	TI	80	Successful	80	Successful	90	Successful
27.	UK	35	Fail	60	Fail	75	Fail
28.	WH	40	Fail	65	Fail	75	Fail
29.	WN	35	Fail	50	Fail	60	Fail
30.	WS	75	Fail	80	Successful	80	Successful
Total		$\sum x = 1445$ M = 48,16		$\sum x = 2160$ M = 72		$\sum x = 2430$ M = 81	

Appendix XIV



FIRST MEETING BEFORE DOING THE PRE-TEST



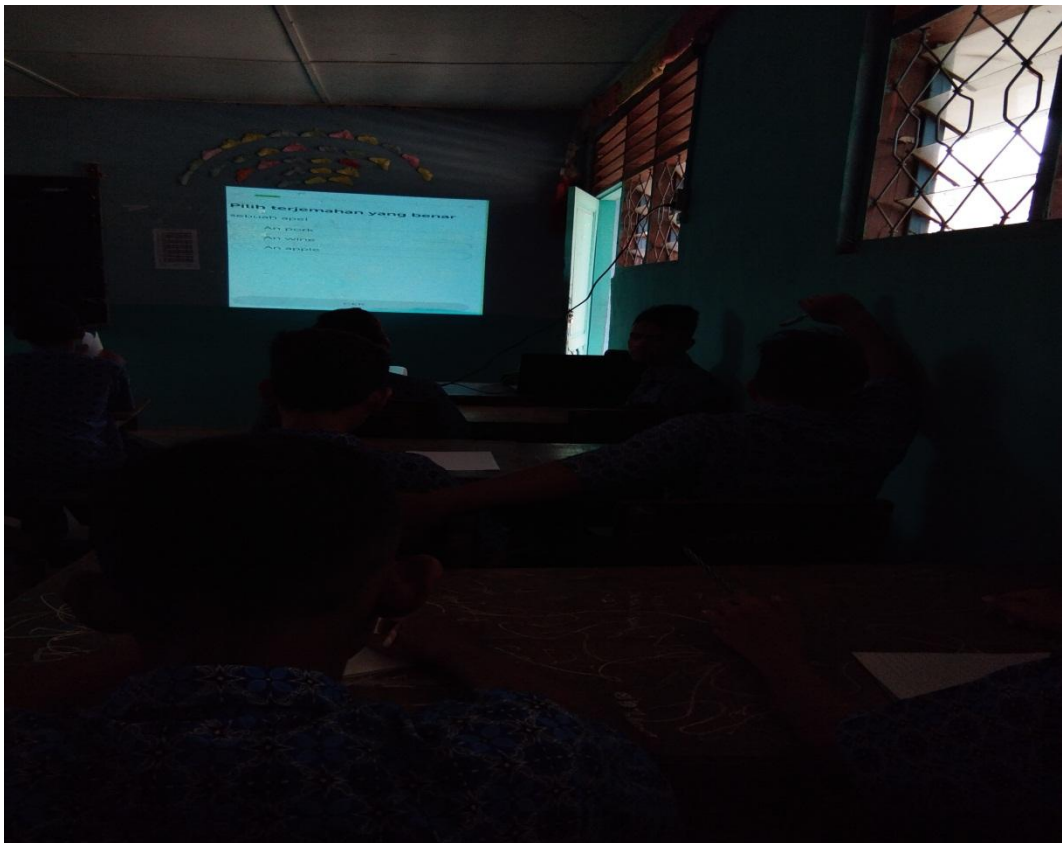
THE SECOND MEETING DOING THE PRETEST



THE THIRD MEETING, CYCLE 1 GIVING TREATMENT



THE FORTH MEETING, DOING POST-TEST 1



THE FIFTH MEETING, CYCLE 2 GIVING THE SECOND TREATMENT



THE SIXTH MEETING, GIVING THE SECOND POST-TEST



FOTO WITH TEACHERS OF MTs Guppi Pangkatan

