

**THE EFFECT OF DUOLINGO APPLICATION ON THE STUDENTS'
ACHIEVEMENT IN VOCABULARY**

SKRIPSI

*Submitted Partial Fulfillment of the Requirements
for the Degree of Sarjana Pendidikan (S.Pd)
English Education Program*

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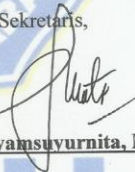
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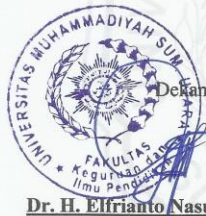
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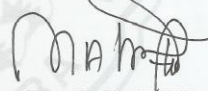

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benar telah melakukan seminar proposal skripsi pada hari Kamis, tanggal 09, Bulan Mei, Tahun 2019.

Demikianlah surat keterangan ini dibuat untuk memperoleh surat izin riset dari Dekan Fakultas. Atas kesediaan dan kerjasama yang baik, kami ucapkan terima kasih.

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ABSTRACT

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This study was carried out to find out the students' achievement in vocabulary using Duolingo Application. The descriptive quantitative methods was applied to describe the data. The population of this research was the second class of Madrasah Tsanawiyah Negeri 3 Medan, which was divided into the experimental and control class and the total of the sample was 73 students. The researcher gave 25 questions about vocabulary to collect the data in pre-test and post-test. T-test formula was used by the researcher to analyze the data. In this research, it was found that the mean of pre-test score in experimental class was 57.30 and in control class was found 49.56. Meanwhile, the mean of post-test score which found in experimental class was 82.49 and in control class was 70.22. It can be counted from the students' score that t_{count} was 3.864, whereas the t_{table} was 1.993 for $\alpha = 0.05$ with the degree of freedom (df) 71. It means that t_{count} was higher than t_{table} ($3.864 > 1.993$). So, alternative hypothesis (H_a) was accepted and null hypothesis (H_0) was rejected in this research. In an addition to this result, using of Duolingo Application had significant effect as media in English teaching learning process. In another instrument was giving questionnaire to measure students' perception toward the using of Duolingo Application and the researcher was found out that most of students were agree toward using Duolingo Application could be made them more interested in English teaching learning process especially when learning vocabulary. In this term, it can be concluded that none of students who responded disagree or strongly disagree toward the questionnaire that have given by the researcher.

Keywords: vocabulary, duolingo application

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CHAPTER I

INTRODUCTION

A. Background of the Problem

English is the language which is having the most important role in the world as the tool to communicate with each others. English is also one of foreign language which become the subject at school which should learned by students in formal education from the lowest to the highest level and it is also examined in the National Examination. The students should understand, deliver the information, opinion, feeling, ideas with developing the knowledge, technology, and culture by using English. The most important English learning component is comprehending the vocabulary. Vocabulary is the prior element in English that the students need to comprehend and it should be taught to them because it has the key role to every languages in the whole of world, in which without vocabulary we can not understand each others. Nation & Newton (1997) have mentioned that vocabulary is the knowledgment that learn about words and word meanings. Vocabulary is the fundamental competence that should be had by students to get another competence like reading, speaking, listening, and writing. In the other hand, other language skills cannot be separated from vocabulary.

As the previous researcher said that there are several causes the students feel difficult to learn English. First, the students are lack in vocabulary so that they cannot understand the meaning of the words. Second, the media that used is not interest. The way to teach the material about vocabulary is still using the

conventional way, in which the students given some words then the students writes and memorizes that words. This method will be made the students easy to forget it because some factors like a lack of memory, lazy, and bored. With the difficulty of memorizing vocabulary, the ability to understand English both verbal and non-verbal is not optimal.

Based on the experience of researcher in Madrasah Tsanawiyah Negeri 3 Medan and also asked to the English teacher there, the researcher got several obstacles that the students faced, in which they were lack in comprehending the vocabulary because they did not know how to express some words that gave by using guessing game method. Furthermore, lack of media variety that used in teaching English, caused by limitations of existing the media. By this conditions, the researcher assumed that the appropriate method, strategy or media should be choose, because it is not an easy thing to do when teaching English in vocabulary especially without the complementing of an appropriate method.

Nowadays, people have been living in the globalization era, in which the development of technology grows rapidly. Eventually, they try to find much information by using internet. They can browse much information and news through the internet. The growth of technology is related to the development of English. Technology can change the method of people work, learn, interact, and spend their time. Along with the development of the period including smartphone technology that continues to grow, in which smartphones are primer necessary for everyone especially for the students. As well as technology also has a crucial role in the process of education and learning in almost the whole world. Hamalik

(2000:18), technology in education includes all of tools that can be used to present the information, especially related to the education and assessment, such as television, language laboratory, and some of media which projected and computer. It can be said that everything covered as audio-visual aids is classified as the technology in education.

The use of teaching learning media which use technology in the form of an android application, providing the students with an easier understanding of vocabulary and also making the learn will be fun and enjoyable. Therefore, the researcher wants to make an experimental research by using one of android application that easy to use by the students to learn especially in English. One of the application for the learning English is Duolingo. Lionetti (2013) mentioned that Duolingo is a free gamified e-learning tool that allows users who are looking to learn how to speak any of the following languages, such English, Italian, French, and so on. Duolingo itself are often downloaded on the phone or register in the computer, so the users will practice it anytime and anywhere.

It can be seen that technology provide the learners an instrument of learning. Applications such as games set aside the new facilitation for the significant learning process and it increases the basic duty of the teacher in giving the stimulation and the motivation to the students to comprehend the second language by using fun learning process effectively. The role of the teacher when using this method is as the mediator. In this obstackle had conducted an experimental research entitled “The Effect of Duolingo application on Students’ Achievement in Vocabulary”.

B. The Identification of the Problem

In relation to the background of problem above, the following problems can be identified, as follows:

1. Students were lack in comprehending the vocabulary
2. Lack of media variety that was used in teaching English.

C. Scope and Limitation

This study is intended to find out the students' achievement in vocabulary using Duolingo application in which limited on asking and expressing capability and willingness.

D. The Formulation of the Problem

In line with the background of problem above, this research are formulated, as follows:

1. How is the students' achievement in vocabulary that would be taught by using Duolingo application?
2. Is there any effect of Duolingo application on the students' achievement in vocabulary?
3. What is the students' perception toward the use of Duolingo application?

E. The Objectives of the Study

Based on the formulation of the problem above, the objectives of the study were:

1. To know the students' achievement in vocabulary that would be taught by using Duolingo application.
2. To find out the effect of Duolingo application on the students' achievement in vocabulary.
3. To know the students' perception toward using of Duolingo application.

F. The Significances of the Study

The result of this study are expected to provide the significant contribution both theoretically and practically.

1. Theoretically

The result of this research are expected to support theories dealing with the effect of Duolingo application on the students' achievement in vocabulary.

2. Practically

a. For Teachers

1. Teachers can motivate students to encourage their vocabulary through the using of Duolingo application.
2. Teachers are able to teach the material easier and also will be have a new media to teach vocabulary trough Duolingo application.

b. For Students

1. Students are able to raise their achievement in vocabulary.
2. Students have interest in learning process because it is more fun and enjoyable.

c. For other researcher

It is also contributed as the reference for other researchers who want to do another research in line with this research and give the sources of information also.

CHAPTER II

REVIEW AND LITERATURE

A. Theoretical Framework

This chapter discussed some of points due to the theories that used in this study, such as concepts of vocabulary and duolingo.

1. Vocabulary

1.1 Definition of Vocabulary

Either of the difficult subject for students is English, it is because they do not have enough vocabulary, and their knowledge is very restricted, in paying attention the students are not interest in English subject because they do not know the meaning. According to Scrivener (1998) “vocabulary is a much more powerful carrier of meaning compared to grammar because we can get our message over with vocabulary and without grammar, but we cannot communicate unless we use the necessary words in our patterns and structures.” So, we can communicate with other if we know the meaning although we do not sure to communicate with sentences structurally. David Wilkins have claimed that “without grammar very little can be conveyed, without vocabulary *nothing* can be conveyed”. This is according to his statement that learning vocabulary is very important.

Meanwhile, Jean & Geva (2009) have stated that vocabulary or knowledge of the meaning words is perhaps the most obvious language skill that influences reading development. This is quite clear if we try to understand a sentence in which most of words that we do not get the meaning, perhaps the page from an

advanced physics text. In reading, vocabulary knowledge have an important role, it is starting in the early grades when it influences the development of word reading skills.

Vocabulary and reading have the characteristic which is complex. Whipple (1925) stated that the primary role of vocabulary thus: "Growth in reading power means, therefore, continuous enriching and enlarging of the reading vocabulary and increasing clarity of discrimination in appreciation of word values".

Furthermore, Swan and Walter (1984) mentioned that "vocabulary acquisition is the largest and most important task facing the language learner". Including the rushes that specifically targeted to vocabulary is started from course books. Nevertheless, around grammar syllabuses were organized by the most language courses. There are good grounds for retaining a grammatical organisation. While vocabulary is a collection of items largely, grammar is a system of rules.

Based on the explanations from some experts that have stated in the previous paragraph, the researcher could draw the conclusion that comprehending the vocabulary is very important because it is the primary element in language especially in English.

1.2 Types of Vocabulary

According to Ellis and Tomlinson (1980:64-5), vocabulary has two types, they are:

a. Passive/Receptive Vocabulary

A learner's passive vocabulary consists of the total number of lexical items which he can understand correctly, and it is one of the teacher's aims to increase gradually the size of the learner's passive vocabulary so that he can eventually read and understand ungraded books (i.e. those not specially written for ESL learners) and can listen with understanding to people speaking on the topics that wide range. To increase the learners' passive vocabulary, the teacher must present new lexical items in such a contextualised and meaningful way that they are understood and will be remembered when heard or read again.

b. Active/Productive Vocabulary

A learner's active vocabulary consists of the total number of lexical items which he can accurately use in speech and writing. A learner's passive vocabulary will always be larger than his active vocabulary as he will have listen to or read some items which he need to use, and he will be able to understand approximately many items which he cannot use with any degree of accuracy.

There are two different opinions that states by the experts, in which the one of expert stated that the types of vocabulary is verbal and print. Verbal vocabulary means that vocabulary that we know the meaning because someone speaks or reads verbally. Meanwhile, in the print vocabulary occurs if the vocabulary printed and read silently. And other expert mentioned that tpes of vocabulary is receptive and productive. Receptive is the vocabulary which listening by people and in the other hand productive vocabualry is the vocabulary which speak or write by any people.

1.3 Teaching and Learning Vocabulary

Another challenging aspects of teaching and learning vocabulary is making principled decisions about which words are most worth used. The vast number of words in the English language makes selecting the most worth teaching appear to be an overwhelming task. According to Goulden, Read, and Nation (1990) in *Webster's Third New International Dictionary* (1963), the largest English dictionary of its time to identify all of English word families. In all, *Webster's Third New International Dictionary* included approximately 54,00 word families. Of course, it not only would be virtually impossible to teach 54,00 word families to students but also would be far beyond the reach of students experiencing vocabulary difficulties and even those who are not to learn that number of word families.

The linguists such as Biemiller, (2009); Nation, (1990) reported that the result of studies of vocabulary are useful in making principled decisions about which words are worth focusing on for teaching and learning vocabulary. In another word, teaching and learning vocabulary should be suitable to the broader framework of a language course.

Nunan (2003) stated “one way to make sure that there is a balanced range of learning opportunities is to see a language course as consisting of four strands.”

They can be seen in the following:

- a. Learning from meaning, it means through reading and listening could focus on input-learning

- b. Deliberating language, it means learning from being taught sounds, vocabulary, grammar, and discourse should be focus
- c. Learning from meaning, it means to produce language in speaking and writing, it should focussed in output-learning
- d. Developing fluency, it means to become faster and confident at listening, speaking, reading and writing

The report of the National Reading Panel (NICHD, 2000), stated that “it is useful when learning vocabulary with a clear perspective. But, students' learning in school will not be optimal if it conducted without a clear perspective on meaningful guideline. Fortunately for teachers, vocabulary instruction is available if a clear perspective on the divisions is effective.”

1.4 Principles for Teaching Vocabulary

Nunan (2003) mentioned that “learners look at vocabulary as being a necessary part of language learning and planning the vocabulary component of a course is one of the difficulties in making sure that it does not cover other essential parts of the course.” The prime method to evade this term is the educator and course planner should guide the principles which can be implemented in some types of teaching and learning conditions. The implementation in some courses in which there are divisions of the course with the planned for development in vocabulary, or in some courses that occurs in skill or content which is focussed to the lessons where vocabulary is dealt.

a. Focussing on the most useful vocabulary

Some of words can be applied in an extensive method in one of certain conditions and it is limited in use. As the sample, the helping word can be applied to ask for helping, to explain how people work with others, to describe how much knowledgements that they have, or tools and materials that can make people in working will be easier and another example. The advertise word has much more limited usefulness. It is still an important word to know, but there are many more words that useful to learn before this term. Teaching the advantages of vocabulary gives learners to be better in the return for their learning effort.

b. Focussing on the vocabulary in the most appropriate way

The basic which should do first is looked at what words to teach and learn. We must know the four most important vocabulary learning strategies when using word parts, word cards, dictionaries and guessing from context. We need to look at the teachers to differentiate the method clearly then treat the words with high frequency from the method that they treat the words with low frequency.

c. Giving attention to the high frequency words across the four sheets of a course

Vocabulary is needed in advance frequency and it happened in all four sheets of a course. Deliberation should be got through teaching and studying and should be used when communicating messages in listening, reading, writing, and speaking. Vocabulary in advance frequency also should be accessible fluently in using receptive and productive.

d. Encouraging the learners to draw on and take the responsibility for the learning

Looking at the principles that connected in choosing what vocabulary that should be taught and also the conditions that needed for learning the vocabulary. There is a primary role that lies behind choosing and learning which is needed by the learners to realize that they must be responsible for their own learning. Taking this duty requires (1) what knowledge that should be learned and the space of options for learning vocabulary, (2) having skill in choosing the best options, and (3) able to monitor and assess the advancement with those options.

1.5 Some Techniques in Teaching Vocabulary

Scott stated that “there were as many different ways to teach vocabulary, the most successful teacher will be use many types approaches to teach vocabulary, the vocabulary that teach is including explicit and indirect which have meaning to help building skill in language for the students.” Learning on word acquisition that was done by One Vanderbilt University have shown that great readers get on through both ways of vocabulary instruction, but those who previously identified as average readers have to work harder with the guidelines not directly to them, meanwhile explicit instruction was more worth. Developing vocabulary is important in one of curriculum. Learning new words is necessary to keep in mind that having a variety of approaches will be the most effective way in the classroom. Focussing on one type of vocabulary instruction is not always the most effective way. It compares several different elements of indirect and explicit instruction, as follows:

1. Indirect Instruction

Learning vocabulary in indirect way comes from facing the words in various context, not focused instruction based on working with certain words. Learning vocabulary in indirect way can also be improved the skills by teaching the students who need to draw their own conclusions about vocabulary, finding the meaning of words through analyzing the roots and developing skill in context. There are three ways to teach in indirect method, as follows:

a. Passive Acquisition

Developing a strong vocabulary absolutely should be critical, the method that students get words which the most throughout their live by incidental learning or learning words naturally from reading, but to apply this method in the classroom is very difficult.

b. Context Skills

The students try to find out their meaning when they encounter new words in reading passages. The answer is the best readers who assists in analysing the word's meaning are able to assess the context quickly, while those who struggle have a harder time.

c. Multiple Exposures

Using the method of acquisition without the regarding in order to internalize the vocabulary words is needed to repeat by students, and it is not enough if considering the flashcard which is same more and more again. Exploring the words in different context repeatedly is necessary for students to get

the most out of their time to study. In some different contexts, the students should encounter word repeatedly in the only one class period than a longer time.

2. Explicit Instruction

According to the teacher who laying out clearly, explicit vocabulary instruction have purposes for the students in instructing one of meaning words directly by means of a near examination of specifically targeted words. There are five ways in teaching explicit method, as follows:

a. Direct Vocabulary Instruction

Introducing one of word series is the central of most vocabulary programs in direct guideline, learning the definitions, antonyms, synonyms and learning how to use the words in one of context.

b. Root Analysis

There are three distinct techniques for discovering the sense when getting a new word, they are: finding word up in a dictionary, decoding the word by using context clues and analyzing the roots of word to realize the etymology. None of these method is working in separation, but they make the tool to develop a solid vocabulary together.

c. Pre-Teaching Vocabulary from Literature

Facing new words passively in the books that students read will gain some exposure to vocabulary merely then the students study to show that they are very gergous in their ability in taking words when they are reading. Either of the prime methods when teaching vocabulary is pre-teaching potentially trouble words that students will be face when they are reading, it is useful to assist the students to

realize what they are reading and retaining them will be better in vocabulary words.

d. Dictionary Skills

The dictionary often seen as out dated in the 21st century classroom. Dictionary skill resides a capable equipment for students to obtain the most out of their vocabulary instruction, and we should not ignore the students to teach them in using the resource effectively, especially using digital equipments make it more helpful than before. Using dictionary to find out the meaning of words is exceed of convincing by students. Students are able to find out the basic words, as example in doing pronunciations, substitute meanings, some sentences, word origin, particular uses and related words, with their little attempt.

e. Developing Word Consciousness

Nagy and Scott mentioned that word awareness as “the knowledge and arranging are necessary for students to learn, appreciate, and also use words effectively,” understanding the differences between formal and informal related to the means of connection, building an effective arguments, and also understanding schooling languages. Anyway of the ways in the course of the year raises the word awarness which is spent the time to work in vocabulary and to help students become conscious of the words over them.

2. Duolingo

2.1 The Definition of Duolingo

Munday (2016) have stated that “Duolingo is a free app created by Luis Von Ahn and Severin Hacker in November 2011.” Duolingo also have motto, in which “Free language education for the world.” In accordance with its site, “it has more than 30 million registered users. It offers several languages for English speakers as well as others for non-English speakers.”

Meanwhile, Teske (2017) mentioned that “Duolingo is an online language-learning platform which launched in 2012 that offers courses in 27 different world languages.” Duolingo itself can be accessed in mobile application on Android or accessing internet on computer devices. “This review will primarily focus on the website version of the software. The site claims to act as a private language tutor that provides individualized instruction that motivates its users through game-like activities to promote language acquisition (Duolingo, 2011).” Duolingo offered the instruction that individualism and also the English Test site to evaluate non-native English speakers’ proficiency degree and also an English test for bussiness and schools. This observation should be focus on the individual educator function of the site for Spanish for English speakers’.

Moreover, Paula (2016, p.60) mentioned that “duolingo is an application for cell phones or computers. It is one of the most famous and praised language teaching applications on the market. It works in a very simple way and it is very useful for those who are studying English and several other languages, such as Spanish, Italian, German and Turkish. It can be used for at least five minutes a

day, and the users define how they would like to practice it right from the beginning. The four skills, reading, writing, listening and speaking, are present during the learning process in Duolingo, through elaboration of questions, affirmative and negative sentences, small texts and excerpts to be heard and transcribed, and it is also possible to the students to record their own pronunciation to assess their oral performance.”

As the conclusion that Duolingo is either of English teaching learning media, which is able to assist the students in learning English which is more enjoyable, because it is such as the game based free learning platform, that can be used as educational technology in school.

2.2 Target Audience of Duolingo Application

As Lionetti (2013) states that Duolingo has targeted there e-learning to individuals who are looking to learn a second language. This tool is for any user looking to learn how to speak from any of the following languages: English, Italian, French, Portuguese, Spanish, and German. The audience using this tool should be familiar and have accessibility to an iPhone, iPad, any Android device, or a computer to go online and use this online gamified e-learning. The audience looking to use Duolingo should have an account of some sort through either facebook or an e-mail address in order to create an account on Duolingo. There is no specified age requirement to use Duolingo nor are there any pre course requirements or knowledge needed to begin a language course. Duolingo is for all users whether they are beginner’s moderate or intermediate students. The e-learning tool has allowed those that are advance to skip lessons and learn to their

request. Whether you have a busy schedule or not, the audiences are able to access the course on their own time and work through the course at their own pace completing the language course as they wish.

2.3 The Objectives of Duolingo Application

Lionetti (2013, p.4) states that there are some objectives of duolingo application, as follows:

1. To teach users to speak another language for free
2. To understand and be able to speak a phrase or sentence in another language
3. To listen a phrase or sentence in your target language and type it out
4. To be able to write the correct words to the matching pictures
5. To develop the skills to translate your words and sentences from your chosen language to English
6. To be able to translate words and sentences from English to your chosen language
7. To help users online to translate as much of the web as possible
8. To provide a gamified learning experience for users
9. To provide our clients with the most accurate translation to their webpage

2.4 Types of Duolingo Tasks

Wagner et al (2015, p. 322) said that “there are four separate tasks on Duolingo, such as vocabulary task, a listening and transcription task, a sentence completion task, and a speaking task. As indicated earlier, because the test is

computer adaptive, the order and number of times each task appears may differ for each test taker on the basis of his or her responses.”

a. Vocabulary

In the vocabulary assignment, a number of words on the boxes in the screen can be seen by the test taker. After that, the words which is proper in English words should be selected by the test taker also. It has rule that the test taker only has one minute in completing the assignment.

b. Listening and Transcription

Listening and Transcription has purpose to assess test taker's ability in listening. The test taker must type the sentence that they heard which is presented aurally to them. Usually this assignment is absolutely a dictation model. The test should complete the assignment and it can hear the audio text up to three times. The test taker only has one minute to finish this assignment.

c. Sentence Completion

Sentence completion is the task that labeled to complete sentences. Here, the test taker will present some short text arranged of several sentences. There are five blank spaces in the assignment and it should be choosed by clicking on the blank space to answer the question from a list of eight answer that provided. This assignment is identic to a selected-response or rational close task. In completing this assignment, it has the rule that the test taker only has three minutes.

d. Speaking

The last task is speaking. In this task, the test taker will give instuction on the screen such “Speak this sentence.” Then, the microphone icon should be

clicked by test takers and the written sentence should be read aloud together with clocking the icon. This task also has the rule that it only has one minute to complete it.

There are some tasks that provide in Duolingo Application, but in this study just focus on the vocabulary task that appropriate to this experimental design.

2.5 The Advantages and Disadvantages of Duolingo

As Mulya et al (2016) stated Duolingo Application also has advantages and disadvantages, as follows:

a. The Advantages of Duolingo

Duolingo is a game-based platform for learning foreign languages. It can be access in browser-based application or an Ios, Android, or Windows Phone application. Duolingo has been released to use a compound of activities; students listen, transcribe, speak, and translate in a simple interface as they work through words and phrases. Duolingo lets teachers track students' language learning progress easily. Students distribute their progress in language learning directly with their teacher, who can track their progress through a dedicate dashboard. By being able to tracks their students' progress, teacher can plan lessons, doing Duolingo skills as homework, and extra award to get credit points accordingly.

It also makes the students to keep going and beat their previous records, and the students can also compete each other with their friends at classroom. The students also are able to gain experience points (XP) to measure how much they

do the task in Duolingo, and pass through different levels and can differentiate with their friends, then they earn lingots with which they can purchase items and bonus lessons or change the icon to make their Duolingo more interesting. Duolingo itself can be accessed on PC and also on the android by downloading it on the Play Store. The interface is explicit and very easy to use. There is also a nice balance between translation, listening, matching words and speaking exercises. The voice recognition program is not too bad, and the students still can hear what the speaker said.

b. The Disadvantages of Duolingo

Duolingo uses a computerized voice system for all of its listening exercises, so the students are not introduced to how the language really sounds. The voice is dry, non-rhythmical, and it can hear fluently, the most important thing in their language learning is actually speaking with native speakers of their target language. There is really no substitute for it and currently Duolingo has no way of allowing people to converse with any native speakers.

Duolingo does not offer any explanation of grammatical structures as part of its dashboard. Grammar is a significant part of language learning and it makes the students have some difficulties to do the task.

2.6 Learning Step by Using Duolingo Application

Related to learning activities which have done, this research have use Duolingo Application as the teaching learning media. There were several steps in running Duolingo Application, as follows :

1. Opening the lesson with regards.

2. Leading one student to guide a common prayer.
3. Checking the attendance list by calling their name one by one.
4. Motivating the interest of students and giving good words
5. Giving the students a chance to exhibit what will be done in using duolingo application
6. Explaining about Duolingo application. Then, the teacher gave example of how to use Duolingo application.
7. Asking the students to join the class in Duolingo Application
8. Giving one of assignment as the example to the students so that they do their task and the teacher could be seen their assignment by seeing on the screen.

B. Previous Relevant Study

There were many researches which had carried out the studies relating to duolingo application as the English learning teaching media, as follows:

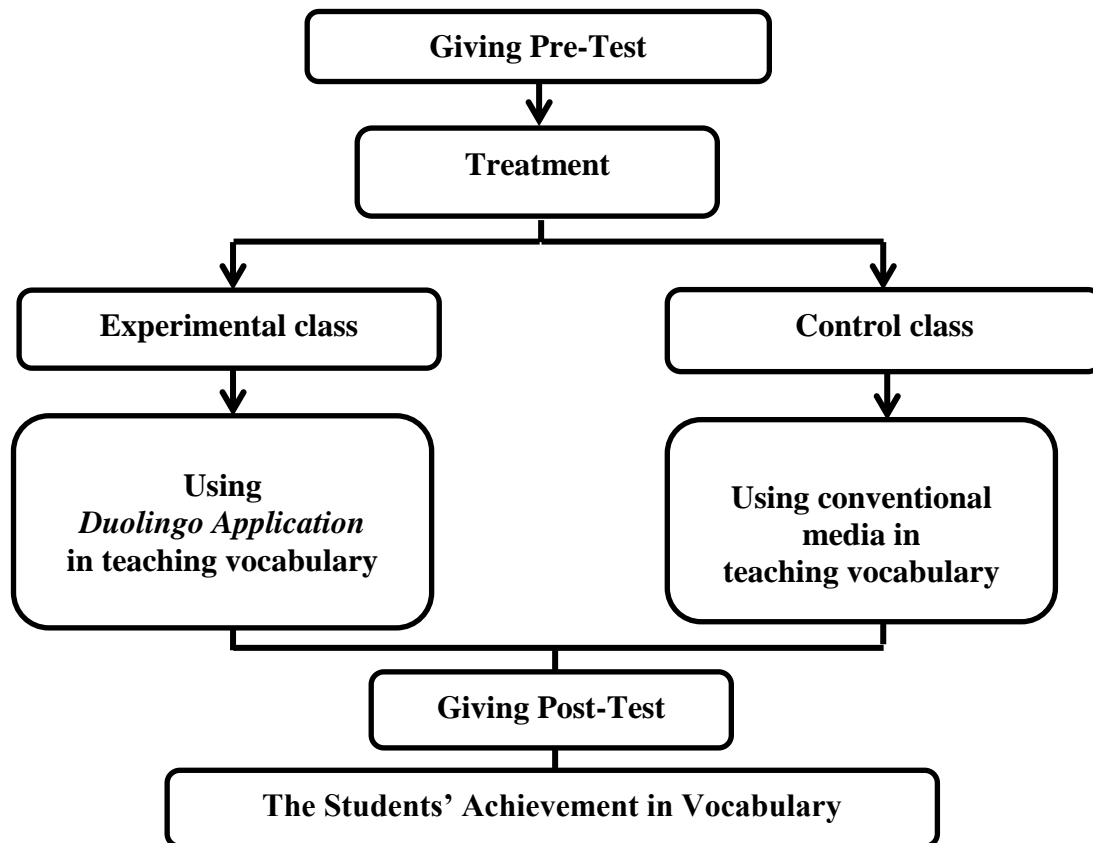
1. Abdul Manan (2017), in his research entitled “The Implementation of Duolingo as Media to Improve Students’ English Language Skill at IAIN Langsa.” The study that he was done aim in confirming the effectiveness of Duolingo which is help the students when learning English It was a survey research including questionnaire. He found that the result which displayed on Duolingo has the significant effet in learning English by using application for the students at his college, but it has limitation. His research suggested in using Duolingo continually for progressive grades as well as for English language learners. The distinct between his research

and this research was lied in the scope of limitation, in which the researcher used Duolingo Application to apply four skill in English, meanwhile this research only limited in students' ability in vocabulary.

2. Budi Kadaryanto, Hery Yufrizal, Rizky Kurnia Wijaya, in their research entitled "Improving Vocabulary through Duolingo Application in CALL at the Seventh Grade of SMP." This study is aimed in implementing Duolingo Application can improve students' achievement in English vocabulary or not. This study was carried out in one class which is applying experimental design that divided into pre-test and post-test group. The researcher have found that Duolingo Application can be used as teaching learning media in English vocabulary and it can make students more interested to learn vocabulary. The distinct between their research and this research was lied in the research design, which is the researchers only use one class and dividing it into two groups.
3. Meanwhile, Laila Mahmuda (2015) in her research entitled "An Analysis of Pronunciation Exercises in Duolingo Application and its Contribution as English Learning Media". This study discussed that Duolingo Application was worthy as English learning media and she found that Duolingo Application has ten criteria to be relevant in digital resources. The differences between her research with this research was lied in the domain of English, in which her research focussed on how pronunciation which done by Duolingo Application, meanwhile in this research focussed on the students' ability in vocabulary.

C. Conceptual Framework

As explained in the review of literature above, vocabulary is one of the primary element in English. It is known that vocabulary can not separate from the four competences such as speaking, reading, writing and listening. Teaching vocabulary is not simply gives some words so that the students write and memorize it, but also teaching vocabulary should be more enjoyable and fun for the students, as the result the students will be interest to the teaching learning process. In relation between teaching vocabulary with the way of teaching is more important. So, through the using of Duolingo Application as the teaching learning media was hopefully able to assist the teacher to teach vocabulary in the class. The study have been conducted, as follows:



Based on the conceptual framework in the previous page, the researcher have taught vocabulary in each of experimental and control class. Experimental and control class have taught simultaneously. Duolingo Application was used in teaching vocabulary in experimental class, meanwhile conventional technique sech as memorizing vocabulary have conducted in control class.

D. Hypothesis

From the description which has been described, it can be formulated in alternative hypothesis (H_a) in which there was effect of using Duolingo Application on the students' achievement in vocabulary.

CHAPTER III
RESEARCH METHODOLOGY

A. Location and Time

The study was carried out at Madrasah Tsanawiyah Negeri 3 Medan. It's located on Jalan Melati 13 Blok X Perumnas Helvetia Medan. The study was conducted from July to August, 2019. The reason for choosing the school was based on the experience in that school, in which the researcher found problem on the students' achievement in vocabulary and also availability of adequate time and funds.

B. Population and Sample

Sugiyono (2007) has stated that "population is generalization area consisting of object or subject which become certain quantities and characteristics set by researchers to be studied and then conclude it." The population of this study was taken from the second year students of Madrasah Tsanawiyah Negeri 3 Medan in academic year 2019/2020. The population which was taken were 218 students that consist of 6 classes such as showing by the table below:

Table 3.1
The Total Number of Population

No	Class	Students
1	VIII – 1	37
2	VIII – 2	36
3	VIII – 3	36
4	VIII - 4	36
5	VIII – 5	37

6	VIII – 6	36
Total		218

Sugiyono (2007), stated that “sample is a part of the number and characteristics possessed by the population.” Purposive sampling technique was used in this study with the reason both of class had low achievement in vocabulary than other class. The researcher had taken VIII-1 as experimental class which consist of 37 students and VIII-2 as control class which consist of 36 students which is shown in the following table:

Table 3.2
The Total Number of Sample

No	Class	Students
1	VIII – 1 (Experimental Class)	37
2	VIII – 2 (Control Class)	36
Total		73

C. Research Design

The design which is used in this research was experimental design. It was divided into experimental class and control class. In experimental class, Duolingo application was used in teaching English media, meanwhile in control class used conventional teaching media such as memorizing vocabulary.

Pre-test and post-test design was used by the researcher to get the data and to find out the effectiveness significant by comparing pre-test and post-test score

both experimental and control class. The research design can be seen in the following table:

Table 3.3
Research Design

Class	Group	Pre-test	Treatment	Post-test
VIII – 1	Experimental	√	Using Duolingo Application	√
VIII – 2	Control	√	Using Conventional Technique (Memorizing vocabulary)	√

D. Research Instrument

There were some instruments that have used by the researcher in this study, they were test and questionnaire, it can be seen as follows:

1. Test

Test was used as the instrument of the study to know the students' achievement in vocabulary. The source of the test was taken from Duolingo application itself which consisted of 25 items. Pre-test was done to measure the students' achievement in English vocabulary while the post-test was done to measure the improvement in students' vocabulary after giving the treatment.

2. Questionnaire

The questionnaire was used by the researcher to identify and knew the students' perception toward the using of Duolingo application in learning vocabulary. Sugiyono (2007) state that "questionnaires is the technique to collect the data which is doing by giving some of written question to the respondent to be

answered.” So, the researcher gave five questions to the students, and the students would be guided by the researcher to checklist on the blank box of the table. The form of the table in questionnaire can be seen, as follows:

Table 3.4
Table of Questionnaire

No	Questions	SA	A	N	DA	SD
1	The students like to use Duolingo application in learning English especially vocabulary					
2	The students are more motivated to learn English by using Duolingo application					
3	Learning English by using Duolingo application makes the students easier in memorizing vocabulary					
4	Duolingo application helps the students to add some new vocabularies					
5	Duolingo application allows the students to learn anytime and anywhere					

Where :

SA = Strongly Agree

N = Neutral

SD = Strongly Disagree

A = Agree

DA = Disagree

(Sugiyono, 2007)

E. Technique of Collecting Data

1. Pre-Test

Pre-test had been given by the researcher to both of experimental and control class. Pre-test for experimental and control class was conducted on July, 2019.

2. Treatment

The treatment that was conducted in experimental class, started on July to August 2019. Duolingo Application was used as the treatment in experimental class to teach vocabulary especially nouns and verbs, meanwhile the activities which was doing in control class is treated only by conventional technique such as memorizing vocabulary and it was started on July together with the experimental class.

3. Post-Test

After conducting the treatment in both of experimental and control class, post-test was conducted to find out students' understanding in the vocabulary after being tried in each method and it held on August, 2019 in both of experimental and control class.

4. Questionnaire

Questionnaire was as supporting instruments togetherness with the test. The researcher has given a number of questions to the students that correlating to the research problem. In this instrument contained five items that indicate the students' interest, they had to select one of the choices of any single items such as: strongly agree, agree, neutral, disagree, and strongly disagree.

F. Technique of Data Analysis

The data from students' tests was taken by the researcher to know the result of students' knowledge in vocabulary by using Duolingo Application in the experimental class and without Duolingo Application in control class. After

obtaining all of students' scores, the researcher measured normality and homogeneity test that have been tested by using SPSS. After analyzing normality and homogeneity test, T-test was used to know the distinct between students' score in pre-test and post-test in each class of experimental and control class.

The formula that can be used to know the effect of using Duolingo Application on the students' achievement in vocabulary by using t-test, as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where:

- t = test of significance
- \bar{X}_1 = mean score of experimental group
- \bar{X}_2 = mean score of control group
- S_1 = sum square of experimental group
- S_2 = sum square of control group
- n_1 = number of students of experimental group
- n_2 = number of students of cotrolled group

(Sugiyono, 2007)

1. Validity

In quantitative research, one of the main criteria for researching results was validity. It have described that “Validity is the degree of accuracy between the data that occurred in the object of research with the power that can be reported by researcher.” Actually, the thing that should be valid is the instrument in the research. There was several provisions or aspects validity that should be checked in declaring whether one of test instrument is valid or not. Product moment correlation by Pearson or SPSS program can be used to test the T-test, the formula can be seen, as follows:

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

N = Number of samples

$\sum X$ = Score item

$\sum Y$ = Total scores

r_{xy} = Correlation coefficient

As the conclusion when measuring the test was valid or not, it could be drawn if $r_{count} > r_{table}$, so the item is valid.

2. Reliability

The formula from Kuder Richardson-21 and SPSS program can be used to find out the reliability of the test, the formula can be seen as follows:

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

Where :

K = The number of test items

M = Mean of the score

S = Standard deviation of the score

3. Normality Test

Knowing the data which was obtained from the students' score had normal distribution or not can be measured by using Lilifors test or SPSS program. In this research, the normality test have done by using SPSS. In using Lilifors test, L_o should be compared to L_t with $\alpha = 0.05$ to know the data was normal or not. The characteristics of Lilifors test was:

- If $L_o < L_t$ = data is normal
- If $L_o > L_t$ = data is not normal

4. Homogeneity Test

Homogeneity test was used to know whether the data that got from the students' score was homogenous or not. In this research, the homogeneity test have done by using SPSS or it can be measured by using Levene test. After getting F_o , it should be compared to F_t with $\alpha = 0.05$ to know the data was homogenous or not. The characteristics of Levene test was:

- If $F_o < F_t$ = data is homogenous
- If $F_o > F_t$ = data is heterogeneous

5. The Stastical Hypothesis

After measuring the t-test by SPSS, the researcher compared the result of t-test with t-table. Testing hypothesis used criteria with significant in the degree 0.05. Could be drawn as the conclusion:

Alternative Hypothesis (H_a) is accepted if $t_o > t_{table}$ or if the sig. (2-tailed) < 0.05 .

Null Hypothesis (H_o) is accepted if $t_o < t_{table}$ or if the Sig. (2-tailed) > 0.05 .

The hypothesis of this research were :

- a. Alternative Hypothesis (H_a): “There is significance difference of students’ achievement in vocabulary between students who taught by using Duolingo Application and students who taught without using Duolingo Application”.
- b. Null Hypothesis (H_o): “There is no significance difference of students’ achievement in vocabulary between students who taught by using Duolingo Application and students who taught without using Duolingo Application”.

6. Analysing the data from questionnaire by using the formula below:

$$P = \frac{f}{n} \times 100\%$$

Where :

P = Percentage

f = frequency of respondents

n = number of sample

CHAPTER IV

DATA AND DATA ANALYSIS

A. Data

The experimental and control class have been taught by using different method. In the experimental class, the students have been taught by using Duolingo Application and giving questionnaire to measure how interest them on using Duolingo Application to learn vocabulary, meanwhile in the control class the students have been taught without Duolingo Application, the teaching and learning process was only doing by conventional technique, in which the students should memorize the vocabulary which given to them every meeting. In order to know the distinct of students' achievement in vocabulary that have been taught by using Duolingo Application and without using Duolingo Application, the data was needed to be measured. The data was collected from the results of pre-test, post-test score and questionnaire that have been conducted in both of experimental and control class.

a. Students' Score of Pre-Test and Post-Test in Experimental Class

The experimental class which is used in this study was class VIII-1 who contain 37 students. Pre-test was done to measure the students' achievement in vocabulary that have been taught by using Duolingo Application. Based on the pre-test score, it can be measured that the mean score of experimental class was 57.30 with the lowest score was 28 and the highest score was 100. After the data was measured from the pre-test, Duolingo application was conducted in this class.

After the treatment have been finished, the post-test was carried out to measure whether Duolingo Application have an effect on students' achievement in vocabulary by distinguishing both pre-test and post-test score. From the post-test that have been done, it is obtained the mean score of the students in experimental class increased to be 82.49 and the range of the mean score from pre-test to post-test was 25.19. The result of pre-test and post-test can be seen in the following table:

Table 4.1
The score of Pre-Test and Post-Test in Experimental Class

Students	Pre-Test	Post-Test
ABA	36	80
ARF	60	96
AF	52	68
AHN	68	84
AR	80	88
AFR	52	96
AS	64	100
AMN	68	80
BHP	60	76
DNS	56	64
ES	44	88
FAS	48	84
IAL	72	76
MAK	48	64
MRA	40	64
MA	28	76
MHH	56	76
MT	36	64
MAN	76	84
MNS	52	64
MRS	32	92
MTT	56	96
MH	36	88
MZ	60	72
NI	60	100

NF	52	92
NM	48	68
NSA	68	96
PID	52	72
SRL	52	80
SNH	80	100
WZL	44	80
ZA	60	72
ZZL	100	100
ZA	92	96
ZNR	92	100
ZKS	40	76
Total Score	2120	3052
Mean Score	57.30	82.49

Based on the table of pre-test and post-test score that have showed on the table above, it can be concluded that there was an effect of Duolingo Application on students' achievement in vocabulary.

1) The Result of Pre-Test in Experimental Class

As the additional results from pre-test score in experimental class, it can be seen in the following table:

Table 4.2
Table of Data Statistics of the Pre-Test Result in Experimental Class

N	Valid	37
	Missing	0
Mean		57.30
Median		56.00
Mode		52
Std. Deviation		17.076
Variance		291.604
Range		72
Minimum		28
Maximum		100
Sum		2120

As already stated that “mean score was the total of all the students’ score in a group and divided with the total of the students’ number.” It can be seen from the table above, that the mean score of this experimental class was 57.30. Then, “Median of the data was the value that separated between the highest and lowest score.” In the pre-test of experimental class that have been done, it have been obtained the median was 56.00. The Mode that have been measured was 52. Standart deviation of the data was 17.076 and variance of the students’ score in the pre-test was 123.227. The range which have been calculated from the highest to the lowest score was 72. The minimum score from the pre-test which got by the student in experimental class was 28, meanwhile the maximum score was 100. Based on the previous table, it can be made a table of frequency, as follows:

Table 4.3
Table of Frequency Distribution of the Pre-Test Result in Experimental Class

	Frequency	Percent	Valid Percent	Cumulative Percent
28	1	2.7	2.7	2.7
32	1	2.7	2.7	5.4
36	3	8.1	8.1	13.5
40	2	5.4	5.4	18.9
44	2	5.4	5.4	24.3
48	3	8.1	8.1	32.4
Valid 52	6	16.2	16.2	48.6
56	3	8.1	8.1	56.8
60	5	13.5	13.5	70.3
64	1	2.7	2.7	73.0
68	3	8.1	8.1	81.1
72	1	2.7	2.7	83.8
76	1	2.7	2.7	86.5

80	2	5.4	5.4	91.9
92	2	5.4	5.4	97.3
100	1	2.7	2.7	100.0
Total	37	100.0	100.0	

Based on the previous table, it has been described that in the experimental class the score varied from 28 to 100.

2) The Result of Post-Test in Experimental Class

As the additional results from post-test score in experimental class, it can be seen in the following table:

Table 4.4
Table of Data Statistics of the Post-Test Result in Experimental Class

N	Valid	37
	Missing	0
Mean		82.49
Median		80.00
Mode		64
Std. Deviation		12.269
Variance		150.535
Range		36
Minimum		64
Maximum		100
Sum		3052

From the table above, it have been showed that in the experimental class, the mean score of post-test score was 82.49. The result of median in post-test was 80.00 and the mode was 64. The result of standart deviation was 12.269 and the variance was 150.535. The range of the score was 36. The minimum score of post-

test was 64, while the maximum score was 100. Based on the previous table, it can be made a table of frequency, as follows:

Table 4.5
Table of Frequency Distribution of the Post-Test Result in Experimental Class

	Frequency	Percent	Valid Percent	Cumulative Percent
64	5	13.5	13.5	13.5
68	2	5.4	5.4	18.9
72	3	8.1	8.1	27.0
76	5	13.5	13.5	40.5
80	4	10.8	10.8	51.4
Valid 84	3	8.1	8.1	59.5
88	3	8.1	8.1	67.6
92	2	5.4	5.4	73.0
96	5	13.5	13.5	86.5
100	5	13.5	13.5	100.0
Total	37	100.0	100.0	

From the previous table above, it can be seen the result of post-test score in experimental class that there were five students who got 64 as the lowest score, and there was five students also who got 100 as the highest score.

b. Students' Score of Pre-Test and Post-Test in Control Class

The control class which is used in this study was class VIII-2 who contained 36 students. Pre-test have been done to measure the students' achievement in vocabulary. From the following table below, it can be seen that the mean score of pre-test was 49.56. After conducting pre-test and the treatment without using Duolingo Application then the post test was conducted to measure

the mean score and it have been measured that post-test score was 70.22. It was found that the range of the mean score from pre-test to post-test was 20.66. The result of pre-test and post-test can be seen in the following table:

Table 4.6
The score of Pre-Test and Post-Test in Control Class

Students	Pre-Test	Post-Test
AF	56	76
AWS	36	64
ALA	52	76
AP	76	88
AN	32	68
AIA	56	76
BAK	36	40
DPS	60	72
DA	48	76
DRB	36	60
FK	24	72
HSH	20	52
HZ	24	44
INF	56	76
IIP	64	76
KNA	60	80
MIS	40	64
MRS	28	48
MRA	52	60
MA	56	76
MFI	76	88
NKB	52	80
NA	32	68
NVS	92	100
NF	88	92
NSJ	28	52
NSY	48	72
RAP	72	88
RAL	52	60
RWA	24	60
RIF	60	88
SR	28	44
SA	80	80

YKH	80	80
YGA	40	80
ZA	20	52
Total Score	1784	2528
Mean Score	49.56	70.22

From the previous table, it have been showed the score of pre-test and post-test in control class.

1) The Result of Pre-Test in Control Class

As the additional results from pre-test score in control class, it can be seen in the following table:

Table 4.7
Table of Data Statistics of the Pre-Test Result in Control Class

N	Valid	36
	Missing	0
Mean		49.56
Median		52.00
Mode		52
Std. Deviation		20.154
Variance		406.197
Range		72
Minimum		20
Maximum		92
Sum		1784

From the table above, it have been showed that the mean score of pre-test was 49.56. The median of the post-test score was 52.00 and the mode was 52. The standart deviation was 20.154 and the variance was 406.197. The range of the score was 72. The minimum score of post-test was 20, while the maximum score

was 92. Based on the previous table, it can be made a table of frequency, as follows:

Table 4.8
Table of Frequency Distribution of the Pre-Test Result in Control Class

	Frequency	Percent	Valid Percent	Cumulative Percent
20	2	5.6	5.6	5.6
24	3	8.3	8.3	13.9
28	3	8.3	8.3	22.2
32	2	5.6	5.6	27.8
36	3	8.3	8.3	36.1
40	2	5.6	5.6	41.7
48	2	5.6	5.6	47.2
52	4	11.1	11.1	58.3
Valid 56	4	11.1	11.1	69.4
60	3	8.3	8.3	77.8
64	1	2.8	2.8	80.6
72	1	2.8	2.8	83.3
76	2	5.6	5.6	88.9
80	2	5.6	5.6	94.4
88	1	2.8	2.8	97.2
92	1	2.8	2.8	100.0
Total	36	100.0	100.0	

From the table above, it have been showed that in the control class score in pre-test was varied from 20 to 92.

2) The Result of Post-Test in Control Class

As the additional results from post-test score in control class, it can be seen in the following table:

Table 4.9
Table of Data Statistics of the Post-Test Result in Cntrol Class

N	Valid	36
	Missing	0
Mean		70.22
Median		74.00
Mode		76
Std. Deviation		14.765
Variance		218.006
Range		60
Minimum		40
Maximum		100
Sum		2528

Based on the previous table, it can be seen that the mean score of post-test was 70.22. The median of the post-test result was 80.00 and the mode was 76. The standart deviation was 14.765 and the variance was 218.006. The range of the score was 60. The minimun score of post-test was 40, while the maximum score was 100. From the table above, it can be made a table of frequency, as follows:

Table 4.10
Table of Frequency Distribution of the Post-Test Result in Control Class

	Frequency	Percent	Valid Percent	Cumulative Percent
40	1	2.8	2.8	2.8
44	2	5.6	5.6	8.3
48	1	2.8	2.8	11.1
52	3	8.3	8.3	19.4
60	4	11.1	11.1	30.6
Valid 64	2	5.6	5.6	36.1
68	2	5.6	5.6	41.7
72	3	8.3	8.3	50.0
76	7	19.4	19.4	69.4
80	5	13.9	13.9	83.3
88	4	11.1	11.1	94.4

92	1	2.8	2.8	97.2
100	1	2.8	2.8	100.0
Total	36	100.0	100.0	

From the table above, it have been showed the result of post-test in control class that there was only one students who got 40 as the lowest score and also there was only one student who got 100 as the highest score.

B. Data Analysis

1. Validity

a. Validity of Test

The calculation of validity test instrument have been done by using SPSS V 21 program. The data analyzed were obtained from the result of the test instrument that consist of 25 questions. The researcher should got the result of $r_{\text{count}} > r_{\text{table}}$ if the question is valid and vice versa. It can be seen as follows:

Table 4.11
The Result of Validity Test

No. Item	R count	R table	Status
1	0.466	0.329	Valid
2	0.353	0.329	Valid
3	0.492	0.329	Valid
4	0.466	0.329	Valid
5	0.523	0.329	Valid
6	0.799	0.329	Valid
7	0.353	0.329	Valid
8	0.523	0.329	Valid
9	0.758	0.329	Valid
10	0.799	0.329	Valid
11	0.799	0.329	Valid
12	0.758	0.329	Valid
13	0.776	0.329	Valid
14	0.758	0.329	Valid
15	0.514	0.329	Valid
16	0.799	0.329	Valid

17	0.464	0.329	Valid
18	0.430	0.329	Valid
19	0.641	0.329	Valid
20	0.533	0.329	Valid
21	0.555	0.329	Valid
22	0.438	0.329	Valid
23	0.575	0.329	Valid
24	0.599	0.329	Valid
25	0.412	0.329	Valid

From the previous table, it can be seen all of the test item is valid. In the table showed that r_{count} is higher than r_{table} . So that, the test can be used to find out the data of students' ability in the research.

b. Validity of Questionnaire

The calculation of validity questionnaire instrument have been done by using SPSS V 21 program. The data analyzed were obtained from the result of the questionnaire that consist of 5 questions. The researcher should got the result of $r_{\text{count}} > r_{\text{table}}$ if the question is valid and vice versa. It can be showed in the following table:

Table 4.12
The Result of Validity Questionnaire

		Item1	Item2	Item3	Item4	Item5	Total	Status
Item1	Pearson Correlation	1	.569**	.526**	.153	.127	.761**	Valid
	Sig. (2-tailed)		.000	.000	.323	.411	.000	
	N	44	44	44	44	44	44	
Item2	Pearson Correlation	.569**	1	.415**	.163	.053	.666**	Valid
	Sig. (2-tailed)	.000		.005	.291	.733	.000	
	N	44	44	44	44	44	44	
Item3	Pearson Correlation	.526**	.415**	1	.092	-.110	.643**	Valid
	Sig. (2-tailed)	.000	.005		.555	.476	.000	

	N	44	44	44	44	44	44	
	Pearson Correlation	.153	.163	.092	1	.009	.507**	Valid
Item4	Sig. (2-tailed)	.323	.291	.555		.956	.000	
	N	44	44	44	44	44	44	
	Pearson Correlation	.127	.053	-.110	.009	1	.404**	Valid
Item5	Sig. (2-tailed)	.411	.733	.476	.956		.006	
	N	44	44	44	44	44	44	
	Pearson Correlation	.761**	.666**	.643**	.507**	.404**	1	
Total	Sig. (2-tailed)	.000	.000	.000	.000	.006		
	N	44	44	44	44	44	44	

** . Correlation is significant at the 0.01 level (2-tailed).

From the previous table, it have been showed that the questionnaire is valid include item one until five. In the table showed that r_{count} is higher than r_{table} . So that, the questionnaire can be used to measure the students' perception toward the using of Duolingo Application.

2. Reliability

Reliability can be measured by using SPSS V 21, the researcher should got the result of $r_{count} > r_{table}$ if the question is valid and vice versa.

a. Reliability of Test

Reliability of test which has been measured by using SPSS V 21 got the result of reliability level in high category, because $r_{count} > r_{table}$ ($0.750 > 0.329$) with N (total of students) was 36 students and 30 items questions. Significance level $\alpha = 0.05$. It means that the test is reliable. It can be seen as follows:

Table 4.13
Reliability Statistics

Cronbach's Alpha	N of Items
.750	26

b. Reliability of Questionnaire

Reliability of questionnaire which has been measured by using SPSS V 21 got the result of reliability level in high category, because $r_{\text{count}} > r_{\text{table}}(0.719 > 0.329)$ with N (total of students) was 36 students and 5 items questions. Significance level $\alpha = 0.05$. It means that the questionnaire is reliable. It can be seen in the following table:

Table. 4.14
Reliability Statistics

Cronbach's Alpha	N of Items
.719	6

3. Normality Test

a. Pre-Test Normality Test

The formula of *Kolmogorov-Smirnov* and *Shapiro-Wilk* can be used to measure normality test. But, the normality in this research was done by using SPSS V 21 program. Normality test have been measure to get the data which have the normal distribution, the significant score that should be achieve was more than 0.05. It can be interpreted if the significant score was lower than 0.05 and it means

that the data was not in normal distribution. Based on the result of pre-test score, the normality test can be seen in the following table:

Table 4.15
Test of Normality from the Pre-Test Result both of Experimental and Control Class

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Experimental	.140	37	.065	.959	37	.185
Control	.111	36	.200*	.952	36	.120

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on the previous table, it have been showed that in *Kolmogorov-Sminorv*, the score of significance in experimental class was 0.065 and in control class was 0.200. Meanwhile, the significance of normality pre-test score of experimental class in *Shapiro-Wilk* was 0.185 and in control class was 0.120.

From the qualification that had been described in the previous chapter, the data can be claimed if the significance score was more than 0.05 it means the data was in normal distribution. Therefore, it can be concluded that the data in pre-test were normally distributed both of experimental and control class.

b. Post-Test Normality Test

From the the results both of experimental and control class in post-test score, the normality test can be seen in the following table:

Table 4.16
Test of Normality from the Post-Test Result both of Experimental and Control Class

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.

Experiment	.135	37	.087	.921	37	.052
Control	.152	36	.054	.963	36	.273

a. Lilliefors Significance Correction

Based on the previous table, it have been showed in *Kolmogorov-Sminov*, the score of significance in experimental class was 0.087 and in control class was 0.054. In addition, *Shapiro-Wilk* formula have stated the significance of normality pre-test score of experimental class was 0.052 and in control class was 0.273.

From the qualification that had been mentioned in the previous chapter, the data can be claimed that they were in normality distributed, if the significance score was more than 0.05, it means the data is normal because the values were $0.087 > 0.05$ and $0.034 > 0.05$. On the other formula that used *Shapiro-Wilk*, the significance score in experimental class was 0.012 and in control class was 0.273. Therefore, it can be concluded that the data in post-test both experimental and control class were normally distributed.

4. Homogeneity Test

The homogeneity test have been measure by using SPSS V 21 program. *Levene* method was used to test the homogeneity in SPSS 21. The significant score in *Levene* table should be higher than 0.05 in order to have homogenous distribution data.

a. Pre-Test Homogeneity Test

The result of homogeneity test in the pre-test can be seen in the following table:

Table 4.17
Homogeneity Pre-Test Result both Experimental and Control Class

Levene Statistic	df1	df2	Sig.
1.812	1	71	.183

Based on the table above, it have been presented that the significant homogeneity of pre-test in experimental and control class was 0.183. Therefore, it can be concluded that the distribution data of pre-test both experimental and control class was in homogenous distribution, it have been described in the previous chapter, in which the result of this test was $0.183 > 0.05$. It means the result data was homogenous in pre-test both experimental and control class.

b. Post-Test Homogeneity Test

The result of homogeneity test in the post-test can be seen in the following table:

Table 4.18
Homogeneity Post-Test Result in both Experimental and Control Class

Levene Statistic	df1	df2	Sig.
.814	1	71	.370

Based on the table above, it have been presented that the result of significance homogeneity in post-test both of experimental and control class was 0.370. It can be conclude that the result of post-test in both of experimental and control class were in homogenous distribution.

5. Test of Hypothesis

Test of hypothesis have been conducted after measuring the normality and homogeneity test. In this study, t-test in SPSS V 21 was used to measure the data to find out the significant distinct between students' vocabulary in experimental and control class. Hypothesis test have been done in the result of post-test after treatment was carried out to see whether there was significance difference or not. The data that should be inputed from the mean score in both of experimental and control class. The hypothesis can be concluded from the following table, in which the result of test that have been conducted in experimental class was accepted because there was effect of using Duolingo Application on students' achievement in vocabulary. The result of hypothesis test by using SPSS V 21 program can be showed in the following table:

Table 4.19
The Result of T-Test Calculation

	Class	N	Mean	Std. Deviation	Std. Error Mean
Score	Experimental	37	82.49	12.269	2.017
	Control	36	70.22	14.765	2.461

It can be seen from the table above that each of class had different number of students, in which there were 37 students in experimental class meanwhile there were 36 students in control class. The test have been conducted to find out the distinct of students' achievement in vocabulary between using Duolingo Application and without using Duolingo Application. The table have been presented that the mean score was 82.49 in experimental class, meanwhile in control class was 70.22. It can be distinguish that the difference mean score

between experimental and control class was 12.27. It can be concluded that the mean score of experimental class was higher than control class.

Table 4.20
The Result of Independence Sample Tests

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Score	Equal variances assumed	.814	.370	3.864	71	.000	12.264	3.174	5.936	18.593
	Equal variances not assumed			3.854	67.990	.000	12.264	3.182	5.915	18.614

The previous table have been showed the result of statistical hypothesis. On the table above, the value of t_{count} was 3.864. While Df (Degree of Freedom) was 71 and sig.tailed (p) value was 0.000. It have been explained in the previous chapter that H_a would be rejected if $p > \alpha$. Based on the result that have been presented on the table above, $p < \alpha$, which was $0.000 < 0.05$. It proved that H_0 was rejected and H_a was accepted. Therefore, it can be concluded that there was the effect of Duolingo Application on students' achievement in vocabulary.

6. The Analysis of Questionnaire

Questionnaire were used to get the data about students' interest who have been taught by using Duolingo Application. The number of question in questionnaire were five. The researcher provided a closed-ended questionnaire. It can also be described in the percentage about students who interested toward the using of Duolingo Application. The data can be seen, as follows:

Table 4.21
The students like to use Duolingo application in learning English especially vocabulary

Option	Frequency	Percentage
Strongly Agree	17	45.9%
Agree	17	45.9%
Neutral	3	8.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	37	100%

From the table above, there were 17 students who responded strongly agree with the percentage 45.9%, there were 17 students who responded agree with the percentage 45.9% also and there were only three students who responded neutral with the percentage 8.2% for the question that state "the students like to use Duolingo Application in learning English especially in vocabulary." It have been presented on the table that none of students who responded disagree or strongly disagree.

Table 4.22
The students are more motivated to learn English by using Duolingo application

Option	Frequency	Percentage
Strongly Agree	7	18.9%
Agree	24	64.9%
Neutral	6	16.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	37	100%

From the table above, there were seven students who responded strongly agree with the percentage 18.9%, the most response in this item was agree because there were 24 students who responded it with the percentage 64.9% and there were six students who responded neutral with the percentage 16.2% for the question that state “the students were more motivated to learn English by using Duolingo application.” It have been showed on the table that none of students who responded disagree or strongly disagree.

Table 4.23
Learning English by using Duolingo application makes the students easier in memorizing vocabulary

Option	Frequency	Percentage
Strongly Agree	17	45.9%
Agree	13	35.1%
Neutral	7	18.9%

Disagree	0	0%
Strongly Disagree	0	0%
Total	37	100%

From the table above, there were 17 students who responded strongly agree with the percentage 45.9%, there were 13 students who responded agree with the percentage 35.1% and there were seven students who responded neutral with the percentage 18.9% for the question “learning English by using Duolingo application makes the students easier in memorizing vocabulary.” It have been presented on the table that none of students who responded disagree or strongly disagree.

Table 4.24
Duolingo application helps the students to add some new vocabularies

Option	Frequency	Percentage
Strongly Agree	12	32.4%
Agree	19	51.4%
Neutral	6	16.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	37	100%

From the table above, there were 12 students who responded strongly agree with the percentage 32.4%, there were 19 students who responded agree with the percentage 51.4% and there were six students who responded neutral

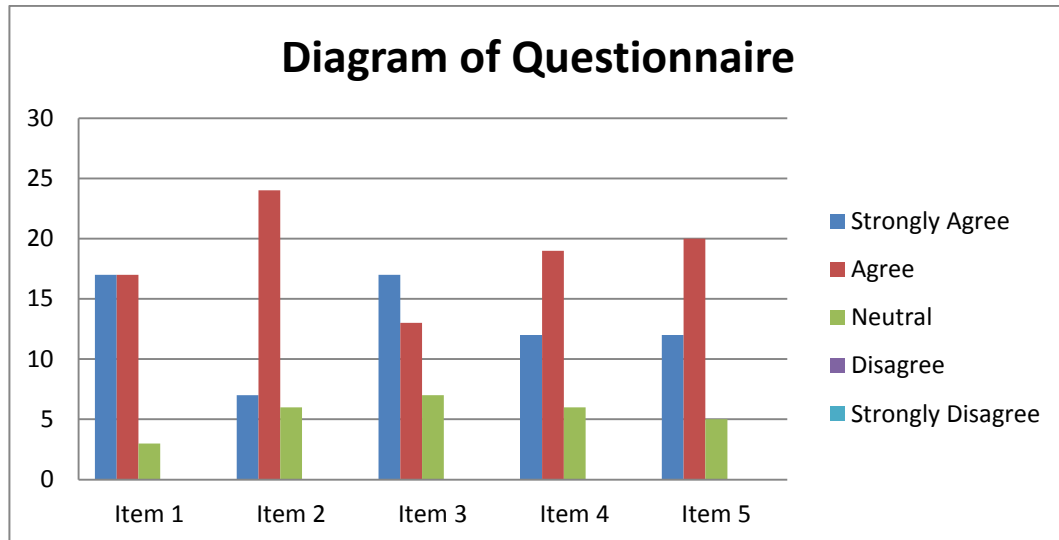
with the percentage 16.2% for the question “Duolingo application helps the students to add some new vocabularies.” It have been showed on the table that none of students who responded disagree or strongly disagree.

Table 4.25
Duolingo application allows the students to learn anytime and anywhere

Option	Frequency	Percentage
Strongly Agree	12	32.4%
Agree	20	54.1%
Neutral	5	13.5%
Disagree	0	0%
Strongly Disagree	0	0%
Total	37	100%

From the table above, there were 12 students who responded strongly agree with the percentage 32.4%, there were 20 students who responded agree with the percentage 54.1% and there were five students who responded neutral with the percentage 13.5% for the question “Duolingo application allows the students to learn anytime and anywhere.” It have been presented on the table that none of students who responded disagree or strongly disagree. From all of the tables, the data can be concluded in a diagram who explain the different response in each questions that responded by the students. The data can be seen in the following diagram:

Figure 4.1
The Diagram of Questionnaire



From the diagram above, it can be conclude that most of students responded in category of agree and none of students who responded disagree or strongly disagree in the questionnaire. It means that the students were agree if Duolingo Application can help or motivate them in the learning English, especially learning vocabulary.

BAB V

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the research which had conducted at Madrasah Tsanawiyah Negeri 3 Medan, especially in class VIII-1 as the experimental class and VIII-2 as the control class. This research was aimed to know about the effect of Duolingo Application toward the students' achievement in learning vocabulary. After the research was done, the reseaecher find the data from pre-test, post-test and questionnaire in each of class that have been described in each of chapter, as follows:

1. Duolingo Application was able to make a significant effect on students' vocabulary. The students more interested in learning vocabulary by using Duolingo Application, it can be seen in their value before implementing Duolingo Application and after implementing it in their class. It also can be seen in their answer on the questionnaire that have been given by the researcher. Most of them agree if Duolingo Application can make their learning more interested than before.
2. The statistical data also have been mentioned in the previous chapter in which it can be seen if there was different value both of experimental class who was using Duolingo Application with the control class who was only used conventional technique likes memorizing the vocabulary every meeting.

3. In hypothesis test, it have been presented that there was an increasing of pre-test and post-test in each of class. It showed that alpha (α) was 0.05, H_a (Alternative Hypothesis) would be accepted and H_o (Null Hypothesis) would be rejected because the sig.2 tailed was lower than alpha. It proved that there is significant effect of Duolingo Application on students' achievement in vocabulary. Moreover the mean score of post-test in experimental class was higher than the mean score in control class. The mean score of post-test in experimental class was 82.49, meanwhile in control class was 70.22.

As the conclusion of the whole chapters, it could be interpreted that the effect of Duolingo Application on students' achievement in vocabulary was significant, especially for eight-grade in MTs Negeri 3 Medan.

B. Suggestions

Based on the conclusion that have been written, there are some suggestion proposed for others:

1. For Teachers

Choosing teaching learning media especially in English will influence the students' interest in the teaching learning process. Learning media which have variation can be used to make students more interest with the material that taught by the teacher. The students also have motivation in learning especially in learning English. Therefore, the teacher must choose appropriate media in teaching English for their students.

2. For Students

Duolingo Application is the Application that used to learn Language especially learning vocabulary. It can be played toward the smartphone, the students should be often to play this application so that they can add their new vocabulary. So, the students do not bored when learning English with the same metode.

3. For Other Researcher

The researcher expected that finding out this study will be used as an additional reference for a similar research with the distinct way in other research. There are many teaching learning media that can be studied in learning English especially vocabulary and it can be applied in teaching learning process also.

REFERENCES

- Akar, N. 2010. *Teaching Vocabulary Bridging the Gap Between Theory and Practice*. Eylul: Birinci Baski.
- Furqon, F. 2013. *Correlation Between Students' Vocabulary Mastery and Their Reading Comprehension*. *Journal of English and Education*. H.68-80.
- Gay, L.R. 2006. *Educational Research*. America: Pearson Education.
- Hiebert, E., & Michael L. 2005. *Teaching and Learning Vocabulary* America: Lawrence Erlbaum.
- Lionetti, L. 2013. Duolingo.
- Manan, A. 2017. *The Implementation of Duolingo As Media to Improve Students' English Language Skill at IAIN Langsa*. Langsa.
- Muddin, A. 2018. *The Use of Duolingo to Improve Students' vocabulary*. Banda Aceh.
- Mulya, A., & Refnaldi. *Using School.Duolingo.com as an Alternative E-Learning at Senior High School for Teaching and Learning English Online*. *Journal of English Language Teaching*. 2302-3198
- Munday, P. *The Case for using Duolingo as part of the language classroom experience*.1138-27.
- Nunan, D. 2003. *Practical English Language Teaching*. Singapore: MC Graw Hill.
- Paula, A., and friends. 2016. *Duolingo: An Experience in English Teaching*. *Journal of Educational and Instructional Studies in the World*. 2146-7463.
- Rahmadani, C. 2018. *The Effect of Using Frayer Model on the Students' Vocabulary Mastery at SMP IT Al Ihya Tanjung Gading*. Medan.
- Riduwan. 2007. *Belajar Mudah Penelitian*. Bandung: Alfabeta.
- Scott, J. *Guide to Teaching Vocabulary*. Prestwick House.
- Setyowati, L. 2017. *Pemanfaatan Teknologi Aplikasi Berbasis Android sebagai Media Belajar dan Ajar Vocabulary untuk Guru Bimbel MIPA dan Bahasa Inggris pada Sakinah Courses Jatimulya-Bekasi*. *E-DIMAS: Jurnal Pengabdian kepada Masyarakat*. 2528-5041.

- Sugiyono. 2007. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Teske, K. 2017. *Duolingo*. *Calico Journal*. 2056-9017.
- Thornbury, S. 2002. *How to Teach Vocabulary*. Malaysia: Pearson Education.
- Vadasy, P., & J. Ron N. 2012. *Vocabulary Instruction for Struggling Students*. New York: The Guilford Press.
- Wagner, E., & Anthony J. 2015. *Language Assessment Quarterly*. 320-331.
- Wijaya,Rizky K., and friends. Improving Vocabulary Through Duolingo Application in Call at the Seventh Grade of SMP.

APPENDICES

Appendix I

RENCANA PELAKSANAAN PEMBELAJARAN (EXPERIMENTAL CLASS)

Sekolah	:	MTs Negeri 3 Medan
Mata Pelajaran	:	Bahasa Inggris
Kelas/Semester	:	VIII/Ganjil
Alokasi Waktu	:	8 x 40 Menit (4 Pertemuan)

A. Kompetensi Inti

- K.1. Menghargai dan menghayati ajaran agama yang dianutnya
- K.2. Menghargai dan menghayati perilaku jujur, disiplin, tanggung jawab, peduli (toleransi, gotong royong), santun, percaya diri dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaannya.
- K.3. Memahami dan menerapkan pengetahuan (factual, konseptual dan procedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata.
- K.4. Mengolah, menyaji dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar

dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori.

B. Kompetensi Dasar dan Indikator

No	Kompetensi Dasar	Indikator
3	3.1 Menerapkan struktur teks dan unsur kebahasaan untuk melaksanakan fungsi sosial dari ungkapan meminta perhatian, mengecek pemahaman, menghargai kinerja yang baik, meminta dan mengungkapkan pendapat serta responnya sesuai dengan konteks	3.2.1 Menyebutkan cara menanyakan kemampuan dan kemauan melakukan suatu tindakan dalam Bahasa Inggris sesuai dengan konteks. 3.2.2 Menyebutkan cara menyatakan kemampuan dan kemauan melakukan suatu tindakan dalam Bahasa Inggris sesuai dengan konteks.
	4.1 Menyusun kalimat lisan sederhana untuk mengucapkan dan mengartikan kata benda sederhana serta mengecek pemahaman dan kinerja yang baik dengan memperhatikan fungsi sosial, struktur teks dan unsure kebahasaan yang benar dan sesuai konteks.	4.2.1 Membuat pertanyaan mengenai kemampuan dan kemauan melakukan suatu tindakan yang akan ditanyakan.

C. Materi Pembelajaran

Materi pokok	Teks lisan dan tulis untuk a) meminta perhatian, b) mengecek pemahaman, c) menghargai kinerja yang baik dan d) meminta/mengungkapkan pendapat serta Responnya
Fungsi sosial	Menjaga hubungan interpersonal dengan guru dan teman
Unsur kebahasaan	Kosa kata: kata benda dan kerja sederhana

D. Metode pembelajaran

Pendekatan : Scientific (Observing, questioning, experiment, associating, Networking)

Metode : Discussion Method

E. Media, Alat dan sumber pembelajaran

1. Media : Projector, laptop, duolingo application
2. Alat/bahan : Spidol dan Papan Tulis
3. Sumber belajar :- Bright An English Course for Junior High School Students
- Sumber dari Internet:
<http://school.duolingo.com>

F. Langkah-langkah pembelajaran

1). Pertemuan Pertama

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none">•Guru mengucapkan salam dan memulai pembelajaran•Guru mengecek kehadiran siswa•Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari	10 Menit
Kegiatan Inti	Mengamati	<ul style="list-style-type: none">• Siswa mendengarkan instruksi yang diberikanguru•Guru memperlihatkan gambar dan beberapa kosakata benda Bahasa Inggris dan artinya•Dengan bimbingan dan arahan guru, siswa mengidentifikasi arti dan spelling yang benar dari gambar dan kosakata tersebut	60 Menit

	Menanya	<ul style="list-style-type: none"> •Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut. •Guru meminta siswa untuk mengulang kembali apa yang disebutkan oleh guru. 	
Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	10 Menit

2). Pertemuan Kedua

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 Menit
Kegiatan Inti	Mengeksplorasi	<ul style="list-style-type: none"> •Guru memperlihatkan beberapa kosakata yang ada di Duolingo •Guru mengajak siswa untuk menerjemahkan beberapa kata di Duolingo 	20 Menit
	Mengasosiasi	<ul style="list-style-type: none"> •Guru membagi siswa ke dalam beberapa kelompok •Guru mengajak siswa untuk menyelesaikan beberapa exercise yang ada di Duolingo. 	30 menit
	Mengkomunikasikan	<ul style="list-style-type: none"> •Siswa kemudian membuat sebuah kalimat mengenai kemampuan dan kemauan 	10 menit

		melakukan suatu tindakan dari kata yang didapat di Duolingo	
Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	10 Menit

3). Pertemuan Ketiga

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 menit
Kegiatan Inti	Mengamati	<ul style="list-style-type: none"> •Siswa mendengarkan instruksi yang diberikanguru •Guru memperlihatkan gambar dan beberapa kosakata kerja Bahasa Inggris dan artinya •Dengan bimbingan dan arahan guru, siswa mengidentifikasi arti dan spelling yang benar dari gambar dan kosakata tersebut 	10 menit
	Menanya	<ul style="list-style-type: none"> •Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut. 	10 menit

		<ul style="list-style-type: none"> •Guru meminta siswa untuk mengulang kembali apa yang ditampilkan dari aplikasi Duolingo tersebut. 	
	Mengeksplorasi	<ul style="list-style-type: none"> •Guru mengajak siswa untuk menerjemahkan beberapa kata yang berhubungan dengan kata kerja di aplikasi Duolingo tersebut 	15 menit
	Mengasosiasi	<ul style="list-style-type: none"> •Guru meminta siswa untuk bergabung dengan kelompok sebelumnya •Guru mengajak siswa untuk menyelesaikan beberapa exercise yang ada di Duolingo. 	15 menit
	Mengkomunikasikan	<ul style="list-style-type: none"> •Siswa secara bergantian di depan kelas menyebutkan jawaban mereka 	10 menit
Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	10 Menit

4). Pertemuan Ke-empat

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 menit

Kegiatan Inti	Mengamati	<ul style="list-style-type: none"> •Siswa mendengarkan instruksi yang diberikan guru •Guru memperlihatkan gambar dan beberapa kosakata kerja Bahasa Inggris dan artinya •Dengan bimbingan dan arahan guru, siswa mengidentifikasi arti dan spelling yang benar dari gambar dan kosakata tersebut 	10 menit
	Menanya	<ul style="list-style-type: none"> •Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut. •Guru meminta siswa untuk mengulang kembali apa yang ditampilkan dari aplikasi Duolingo tersebut. 	10 menit
	Mengeksplorasi	<ul style="list-style-type: none"> •Guru mengajak siswa untuk menerjemahkan beberapa kata yang berhubungan dengan kata kerja di aplikasi Duolingo tersebut 	15 menit
	Mengasosiasi	<ul style="list-style-type: none"> •Guru meminta siswa untuk bergabung dengan kelompok sebelumnya •Guru mengajak siswa untuk menyelesaikan beberapa exercise yang ada di Duolingo. 	15 menit
	Mengkomunikasikan	<ul style="list-style-type: none"> •Siswa secara bergantian di depan kelas menyebutkan jawaban mereka 	10 menit
Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	10 menit

G. Penilaian

1. Penilaian Pengetahuan

- a. Teknik Penilaian : Test (Pre-test dan Post-test)
- b. Bentuk Instrument : Multiple Choices

2. Rubrik Penilaian

$$\text{Nilai} = \frac{\text{Jawaban benar}}{\text{Jumlah soal}} \times 100$$

Medan, Juli 2019

Mengetahui,

Guru Mata Pelajaran Bahasa Inggris

Peneliti

ROSMANETTI, S.Pd.I
NIP. 196603161995122001

DINA AMALIA
NPM. 1502050268

RENCANA PELAKSANAAN PEMBELAJARAN

(CONTROLLED CLASS)

Sekolah	:	MTs Negeri 3 Medan
Mata Pelajaran	:	Bahasa Inggris
Kelas/Semester	:	VIII/Ganjil
Alokasi Waktu	:	8 x 40 Menit (4 Pertemuan)

A. Kompetensi Inti

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

B. Kompetensi Dasar dan Indikator

No	Kompetensi Dasar	Indikator
3	3.1 Menerapkan struktur teks dan unsur kebahasaan untuk melaksanakan fungsi sosial dari ungkapan meminta perhatian, mengecek pemahaman, menghargai kinerja yang baik, meminta dan mengungkapkan pendapat serta responnya sesuai dengan konteks	3.2.1 Menyebutkan cara menanyakan kemampuan dan kemauan melakukan suatu tindakan dalam Bahasa Inggris sesuai dengan konteks. 3.2.2 Menyebutkan cara menyatakan kemampuan dan kemauan melakukan suatu tindakan dalam Bahasa Inggris sesuai dengan konteks.
	4.1 Menyusun kalimat lisan sederhana untuk mengucapkan dan mengartikan kata benda sederhana serta mengecek pemahaman dan kinerja yang baik dengan memperhatikan fungsi sosial, struktur teks dan unsur kebahasaan yang benar dan sesuai konteks.	4.2.1 Membuat pertanyaan mengenai kemampuan dan kemauan melakukan suatu tindakan yang akan ditanyakan.

C. Materi Pembelajaran

Materi pokok	Teks lisan dan tulis untuk a) meminta perhatian, b) mengecek pemahaman, c) menghargai kinerja yang baik dan d) meminta/mengungkapkan pendapat serta Responnya
Fungsi sosial	Menjaga hubungan interpersonal dengan guru dan teman
Unsur kebahasaan	Kosa kata: kata benda dan kerja sederhana

D. Metode pembelajaran

Pendekatan : Scientific (Observing, questioning, experiment, associating, Networking)

Metode : Discussion Method

E. Media, Alat dan sumber pembelajaran

1. Media : Papan Tulis, Gambar
3. Sumber belajar :- Bright An English Course for Junior High School Students

F. Langkah-langkah pembelajaran

1). Pertemuan Pertama

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none">•Guru mengucapkan salam dan memulai pembelajaran•Guru mengecek kehadiran siswa•Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari	10 Menit
Kegiatan Inti	Mengamati	<ul style="list-style-type: none">• Siswa mendengarkan instruksi yang diberikanguru•Guru memperlihatkan gambar dan beberapa kosakata benda Bahasa Inggris dan artinya•Dengan bimbingan dan arahan guru, siswa mengidentifikasi arti dan spelling yang benar dari gambar dan kosakata tersebut	60 Menit
	Menanya	<ul style="list-style-type: none">•Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut.•Guru meminta siswa untuk mengulang kembali apa yang disebutkan oleh guru.	
Penutup	Kesimpulan	<ul style="list-style-type: none">•Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran	10 Menit

		<ul style="list-style-type: none"> •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	
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2). Pertemuan Kedua

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 Menit
Kegiatan Inti	Mengeksplorasi	<ul style="list-style-type: none"> •Guru menuliskan kosakata bendadi papan tulis •Guru meminta siswa untuk mencatat dan menerjemahkan kosakata tersebut 	20 Menit
	Mengasosiasi	<ul style="list-style-type: none"> •Guru meminta siswa untuk menyelesaikan beberapa exercise yang ada di buku cetak siswa. 	20 menit
	Mengkomunikasikan	<ul style="list-style-type: none"> •Siswa kemudian membuat sebuah kalimat mengenai kemampuan dan kemauan melakukan suatu tindakan dari kata yang diberikan oleh guru 	20 menit
Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya 	10 Menit

		•Guru mengucapkan salam penutup	
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3). Pertemuan Ketiga

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 menit
Kegiatan Inti	Mengamati	<ul style="list-style-type: none"> •Siswa mendengarkan instruksi yang diberikanguru •Guru memperlihatkan gambar dan beberapa kosakata kerja Bahasa Inggris dan artinya •Siswa memperhatikan struktur atau abjad dari kosakata tersebut 	10 menit
	Menanya	<ul style="list-style-type: none"> •Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut. •Guru meminta siswa untuk mengulang kembali kosakata yang telah dituliskan tersebut. 	10 menit
	Mengeksplorasi	•Guru mengajak siswa untuk menerjemahkan beberapa kata yang berhubungan dengan kata kerja	15 menit
	Mengasosiasi	•Guru mengajak siswa untuk menyelesaikan exercise yang ada di buku cetak siswa.	15 menit
	Mengkomunikasikan	•Siswa secara bergantian di depan kelas menyebutkan jawaban mereka	10 menit

Penutup	Kesimpulan	<ul style="list-style-type: none"> •Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup 	10 Menit
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4). Pertemuan Ke-empat

Kegiatan	Tahap Pembelajaran	Kegiatan Pembelajaran	Alokasi Waktu
Pendahuluan		<ul style="list-style-type: none"> •Guru mengucapkan salam dan memulai pembelajaran •Guru mengecek kehadiran siswa •Guru memberikan motivasi belajar siswa secara kontekstual sesuai dengan manfaat dan aplikasi materi ajar dalam kehidupan sehari-hari 	10 menit
Kegiatan Inti	Mengamati	<ul style="list-style-type: none"> •Siswa mendengarkan instruksi yang diberikanguru •Guru memperlihatkan gambar dan beberapa kosakata kerja Bahasa Inggris dan artinya •Siswa memperhatikan struktur atau abjad kosakata tersebut. 	10 menit
	Menanya	<ul style="list-style-type: none"> •Siswa bertanya tentang hal-hal yang tidak mereka mengerti dari materi tersebut. •Guru meminta siswa untuk mengulang kembali kosakata yang telah dituliskan 	10 menit
	Mengeksplorasi	<ul style="list-style-type: none"> •Guru mengajak siswa untuk menerjemahkan beberapa kata yang berhubungan 	15 menit

		dengan kata kerja di	
	Mengasosiasi	•Guru mengajak siswa untuk menyelesaikan beberapa exercise yang ada di buku cetak siswa	15 menit
	Mengkomunikasikan	•Siswa secara bergantian di depan kelas menyebutkan jawaban mereka	10 menit
Penutup	Kesimpulan	•Siswa dan guru memberikan umpan balik terhadap proses dan hasil pembelajaran •Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya •Guru mengucapkan salam penutup	10 menit

G. Penilaian

1. Penilaian Pengetahuan

- a. Teknik Penilaian : Test (Pre-test dan Post-test)
- b. Bentuk Instrument : Multiple Choices

2. Rubrik Penilaian

$$\text{Nilai} = \frac{\text{Jawaban benar}}{\text{Jumlah soal}} \times 100$$

Medan, Juli 2019

Mengetahui,

Guru Mata Pelajaran Bahasa Inggris

Peneliti

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Appendix II

SOAL PRE-TEST AND POST TEST

Name :

Class :

I. Translate the sentences below and choose the correct answer with crossing (X) a,b,c, or d!

1. Pria-pria itu memakan apel itu....

- | | |
|----------------------------|----------------------------|
| a. The men eat the apples | c. The man eat the apples |
| b. The men eats the apples | d. The man eats the apples |

2. The turtles eat cheese....

- | | |
|-----------------------------|-----------------------------|
| a. Kura-kura itu makan kue | c. Kura-kura itu makan daun |
| b. Kura-kura itu makan keju | d. Kura-kura itu makan roti |

3. Perempuan itu makan pagi....

- | | |
|----------------------------|-----------------------------|
| a. The woman eats morning | c. The women eat morning |
| b. The women eat breakfast | d. The woman eats breakfast |

4. My sister and my brother are very hungry, so I dinner for them.

- | | |
|------------|---------|
| a. Throw | c. Wear |
| b. Prepare | d. Kick |

5. Aku membaca buku-buku....

- | | |
|-----------------------|---------------------|
| a. I read some books | c. I read books |
| b. I read a few books | d. I read book book |

6. Tell him that we support him....

- Katakan padanya bahwa kami mendukungnya
- Katakan padanya bahwa kami membencinya
- Katakan padanya bahwa kami menunggunya

- d. Katakan padanya bahwa kami menghormatinya
7. Kamu memakai sepotong gaun...
- | | |
|---------------------|---------------------|
| a. You wear a glove | c. You wear a skirt |
| b. You wear a pants | d. You wear a dress |
8. Where are my glasses?
- | | |
|----------------------|---------------------|
| a. Dimana gelasku | c. Dimana cangkirku |
| b. Dimana kacamataku | d. Dimana topiku |
9. Kakak saya memakai rok dan kemeja....
- | |
|------------------------------------|
| a. My sister wear skirt and shirt |
| b. My sister wears shirt and skirt |
| c. My sister wears skirt and shirt |
| d. My sister wear shirt and skirt |
10. "My father's office receives letters from other towns".
The underlined word means....
- | | |
|----------|-----------|
| a. Gets | c. Drives |
| b. Takes | d. Brings |

II. Choose and write the suitable answer based on the words in the box !

1. The man eats the
2. The girls drink
3. The author writes
4. My grandfather reads
5. The is an animal
6. A woman eats an
7. My brother writes a to his friend
8. The woman wears her
9. I walk and she

10. We to our parents

Spider	Egg	Letter
Newspaper	Chicken	Coat
Books	Milk	Walks
Respect	Change	Radio

III. Underlined the correct answer based on the words below!

1. My father always.....radio every morning in living room.

(**reads, listens, takes, buys**)

2. Siska did not study hard, so she did not the exam.

(**change, read, take, pass**)

3. A : Can you help me?

B : Sure. What can I do for you?

A : Please, this bag to my room

B : Yes, sir.

(**help, buy, bring, change**)

4. My father is a tailor. He sews and makes

(**clothes, foods, cakes, books**)

5. You can find in your kitchen.

(**spoon, television, sofa, pillow**)

KEY ANSWERS

I.

- | | |
|------|-------|
| 1. a | 6. a |
| 2. b | 7. d |
| 3. d | 8. b |
| 4. b | 9. c |
| 5. c | 10. a |

II.

- | | |
|--------------|-------------|
| 1. chicken | 6. egg |
| 2. milk | 7. letter |
| 3. books | 8. coat |
| 4. newspaper | 9. walks |
| 5. spider | 10. respect |

III.

1. listen
2. pass
3. bring
4. clothes
5. spoon

QUESTIONNAIRE FOR STUDENTS TOWARD THE USING OF DUOLINGO APPLICATION

Name :
Class :

Instructions!

1. Choose one of criteria which suitable with your opinion, by giving checklist sign (✓) in one of criteria score below.

2. Description of score :

SA = Strongly Agree
A = Agree
N = Neutral
DA = Disagree
SD = Strongly Disagree

No	Questions	SA	A	N	DA	SD
1	The students like to use Duolingo application in learning English especially vocabulary					
2	The students are more motivated to learn English by using Duolingo application					
3	Learning English by using Duolingo application makes the students easier in memorizing vocabulary					
4	Duolingo application helps the students to add some new vocabularies					
5	Duolingo application allows the students to learn anytime and anywhere					

Appendix IV

DOCUMENTATIONS



Picture 1.1
The researcher introducing the Duolingo Application



Picture 1.2
The students learned by Duolingo Application



Picture 1.3

The students learned by Duolingo Application with helping proyektor



Picture 1.4

The students learned by conventional technique



Picture 1.5

The students memorized the vocabulary in the front of class



Picture 1.6

The students wrote the vocabulary every meeting

Appendix V



MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
Jl. Kapten Mukhtar Basri No. 3 Telp. (061) 6619056 Medan 20238
Website: <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id

Form : K - 1

Kepada Yth: Bapak Ketua & Sekretaris
Program Studi Pendidikan Bahasa Inggris
FKIP UMSU

Perihal : **PERMOHONAN PERSETUJUAN JUDUL SKRIPSI**

Dengan hormat yang bertanda tangan di bawah ini:

Nama Mahasiswa : Dina Amalia
NPM : 1502050268
Prog. Studi : Pendidikan Bahasa Inggris
Kredit Kumulatif : 136 SKS

IPK = 3,77

Persetujuan Ket./Sekret. Prog. Studi	Judul yang Diajukan	Disahkan oleh Dekan Fakultas
	The Effect of Duolingo Application on the Students' Achievement in Vocabulary	
	The Effect of Applying Whisper Games Method on the Students' Achievement in Listening	
	The Effectiveness of Using Jeopardy Games to Improve Students' Achievement in Reading Report Text	

Demikianlah permohonan ini saya sampaikan untuk dapat pemeriksaan dan persetujuan serta pengesahan, atas kesediaan Bapak saya ucapkan terima kasih.

Medan, 06 April 2019
Hormat Pemohon,

Dina Amalia

Keterangan:

- Dibuat rangkap 3 :- Untuk Dekan/Fakultas
- Untuk Ketua/Sekretaris Program Studi
- Untuk Mahasiswa yang bersangkutan

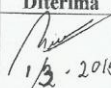


MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
Jl. Kapten Mukhtar Basri No. 3 Teip. (061) 6619056 Medan 20238
Website: <http://www.fkip.umstu.ac.id> E-mail: fkip@umstu.ac.id

PERMOHONAN PERSETUJUAN JUDUL SKRIPSI

Dengan ini saya:

Nama Mahasiswa : Dina Amalia
NPM : 1502050268
Prog. Studi : Pendidikan Bahasa Inggris

Judul	Diterima
The Effect of Duolingo Application on the Students' Achievement in Vocabulary	 13. 2019

Bermohon kepada Dosen Pembimbing untuk mengesahkan Judul yang telah diajukan kepada Prodi Pendidikan Bahasa Inggris.

Disetujui oleh
Dosen Pembimbing


Dr. Bambang Panca Syahputra, M.Hum

Medan, 01 Maret 2019
Hormat Pemohon,


Dina Amalia

Appendix VI



MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
Jl. Kapten Mukhtar Basri No. 3 Telp. (061) 6619056 Medan 20238
Website: <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id

Form K-2

Kepada : Yth. Bapak Ketua/Sekretaris
Program Studi Pendidikan Bahasa Inggris
FKIP UMSU

Assalamu'alaikum Wr, Wb

Dengan hormat, yang bertanda tangan dibawah ini:

Nama Mahasiswa : Dina Amalia
NPM : 1502050268
Prog. Studi : Pendidikan Bahasa Inggris

Mengajukan permohonan persetujuan proyek proposal/risalah/makalah/skripsi sebagai tercantum di bawah ini dengan judul sebagai berikut:

The Effect of Duolingo Application on the Students'
Achievement in Vocabulary

Sekaligus saya mengusulkan/ menunjuk Bapak/ Ibu:

1. Dr. Bambang Panca Syahputra, M.Hum

Sebagai Dosen Pembimbing Proposal/Risalah/Makalah/Skripsi saya.

Demikianlah permohonan ini saya sampaikan untuk dapat pengurusan selanjutnya. Akhirnya atas perhatian dan kesediaan Bapak/ Ibu saya ucapkan terima kasih.

Medan, 15 April 2019
Hormat Pemohon,

Dina Amalia

Keterangan

Dibuat rangkap 3 :
- Untuk Dekan / Fakultas
- Untuk Ketua / Sekretaris Prog. Studi
- Untuk Mahasiswa yang Bersangkutan

Appendix VII



FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
Jln. Mukhtar Basri BA No. 3 Telp. 6622400 Medan 20217 Form : K3

Nomor : *D/SD* /II.3/UMSU-02/F/2019
Lamp : ---
Hal : Pengesahan Proyek Proposal
Dan Dosen Pembimbing

Assalamu'alaikum Warahmatullahi Wabarakatuh

Dekan Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara menetapkan proyek proposal/risalah/makalah/skripsi dan dosen pembimbing bagi mahasiswa yang tersebut di bawah ini :

Nama : Dina Amalia
N P M : 1502050268
Program Studi : Pendidikan Bahasa Inggris
Judul Penelitian : The Effect of Duolingo Application on the Students' Achievement in Vocabulary.

Pembimbing : Dr. Bambang Panca, S.Pd, M.Hum

Dengan demikian mahasiswa tersebut di atas diizinkan menulis proposal/risalah/makalah/skripsi dengan ketentuan sebagai berikut :

1. Penulis berpedoman kepada ketentuan yang telah ditetapkan oleh Dekan
2. Proyek proposal/risalah/makalah/skripsi dinyatakan BATAL apabila tidak selesai pada waktu yang telah ditentukan
3. Masa kadaluarsa tanggal : 15 April 2020

Wa'alaikumssalam Warahmatullahi Wabarakatuh.

Medan, 10 Sya'ban 1440 H
15 April 2019 M

Dekan

Dr. H. Elfranto Nst, S.Pd, M.Pd.
NIDN : 0115057302

Dibuat rangkap 4 (empat) :

1. Fakultas (Dekan)
 2. Ketua Program Studi
 3. Pembimbing
 4. Mahasiswa yang bersangkutan :
- WAJIB MENGIKUTI SEMINAR

Appendix IX



**MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN**

Jl. Kapten Mukhtar Basri No. 3 Medan 20238 Telp.061-6619056 Ext. 22, 23, 30
Website: <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id



SURAT KETERANGAN

Ketua Program Studi Pendidikan Bahasa Inggris, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Sumatera Utara, menerangkan di bawah ini:

Nama Lengkap : Dina Amalia
N.P.M : 1502050268
Program Studi : Pendidikan Bahasa Inggris
Judul Proposal : The Effect of Duolingo Application on the Students' Achievement in Vocabulary

benar telah melakukan seminar proposal skripsi pada hari Kamis, tanggal 09, Bulan Mei, Tahun 2019.

Demikianlah surat keterangan ini dibuat untuk memperoleh surat izin riset dari Dekan Fakultas. Atas kesediaan dan kerjasama yang baik, kami ucapkan terima kasih.

Medan, 17 Mei 2019

Ketua,

Mandra Saragih, S.Pd, M.Hum

Appendix X

SURAT PERNYATAAN



Saya yang bertandatangan dibawah ini :

Nama Lengkap : Dina Amalia
N.P.M : 1502050268
Program Studi : Pendidikan Bahasa Inggris
Judul Proposal : The Effect of Duolingo Application on the Students' Achievement in Vocabulary

Dengan ini saya menyatakan bahwa:

1. Penelitian yang saya lakukan dengan judul di atas belum pernah diteliti di Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara
2. Penelitian ini akan saya lakukan sendiri tanpa ada bantuan dari pihak manapun dengan kata lain penelitian ini tidak saya tempahkan (dibuat) oleh orang lain dan juga tidak tergolong *Plagiat*.
3. Apabila point 1 dan 2 di atas saya langgar maka saya bersedia untuk dilakukan pembatalan terhadap penelitian tersebut dan saya bersedia mengulang kembali mengajukan judul penelitian yang baru dengan catatan mengulang seminar kembali.

Demikian surat pernyataan ini saya perbuat tanpa ada paksaan dari pihak manapun juga, dan dapat dipergunakan sebagaimana mestinya.

Medan, 17 Mei 2019

Hormat saya

Yang membuat pernyataan,



Dina Amalia

Diketahui oleh Ketua Program Studi
Pendidikan Bahasa Inggris

Mandra Saragih, S.Pd, M.Hum

Appendix XI



MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
Jl. Kapten Mukhtar Basri No. 3 Medan 20238 Telp. 061-6622400 Ext. 22, 23, 30
Website: <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id



LEMBAR PENGESAHAN HASIL SEMINAR PROPOSAL

Proposal yang sudah diseminari oleh mahasiswa di bawah ini:

Nama Lengkap : Dina Amalia
N.P.M : 1502050268
Program Studi : Pendidikan Bahasa Inggris
Judul Proposal : The Effect of Duolingo Application on the Students' Achievement in Vocabulary

Pada hari Kamis tanggal 09 bulan Mei tahun 2019 sudah layak menjadi proposal skripsi.

Medan, 17 Mei 2019

Disetujui oleh:

Dosen Pembahas

Erlindawati, S.Pd, M.Pd

Dosen Pembimbing

Dr. Bambang Panca S, S.Pd, M.Hum

Diketahui oleh
Ketua Program Studi,

Mandra Saragih, S.Pd, M.Hum

Appendix XII



UMSU

Bila menjawab surat ini agar disebutkan nomor dan tanggalnya

MAJELIS PENDIDIKAN TINGGI PENELITIAN & PENGEMBANGAN UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN

Jalan Kapten Mochtar Basri No. 3 Medan 20238 Telp. (061) 6622400
Website: <http://fkip.umsu.ac.id> E-mail: fkip@yahoo.co.id

Nomor : 3369 /II.3/UMSU-02/F/2019
Lamp : ---
Hal : Mohon Izin Riset

Medan, 19 Ramadhan 1440 H
24 Mei 2019 M

Kepada Yth, Bapak/Ibu Kepala
MTS Negeri 3 Medan
di-
Tempat

Assalamu'alaikum Warahmatullahi Wabarakaatuh

Wa ba'du, semoga kita semua sehat wal'afiat dalam melaksanakan kegiatan-aktifitas sehari-hari, sehubungan dengan semester akhir bagi mahasiswa wajib melakukan penelitian/riset untuk pembuatan skripsi sebagai salah satu syarat penyelesaian Sarjana Pendidikan, maka kami mohon kepada Bapak/Ibu Memberikan izin kepada mahasiswa untuk melakukan penelitian/riset di Sekolah Bapak/Ibu pimpin. Adapun data mahasiswa kami tersebut sebagai berikut :

Nama : Dina Amalia
N P M : 1502050268
Program Studi : Pendidikan Bahasa Inggris
Judul Penelitian : The Effect of Duolingo Application on the Students' Achievement in Vocabulary.

Demikian hal ini kami sampaikan, atas perhatian dan kesediaan serta kerjasama yang baik dari Bapak/Ibu kami ucapkan terima kasih.

Wa'alaikumssalam Warahmatullahi Wabarakatuh.


Dr. H. Elfrianto Nst, S.Pd, M.Pd. A
15057302

** Pentingal **

Appendix XIII



KEMENTERIAN AGAMA REPUBLIK INDONESIA
KANTOR KEMENTERIAN AGAMA KOTA MEDAN
MADRASAH TSANAWIYAH NEGERI 3 MEDAN
Jalan Melati 13 Blok X Perumnas Helvetia Medan
Telepon (061) 6472306 E-Mail : mtsntigamedan@gmail.com

SURAT KETERANGAN SELESAI RISET

Nomor : B - 015 /Mts.02.15.54/PP.00.5/09/2019

Yang bertanda tangan di bawah ini Kepala Madrasah Tsanawiyah Negeri 3 Medan dengan ini menerangkan:

Nama : Dina Amalia
NIM : 1502050268
Asal Universitas : UMSU
Semester/Jenjang Studi : VIII/S-1
Program Studi : Pendidikan Bahasa Inggris
Judul : The Effect of Duolingo Application on The Students' Achievement in Vocabulary.

Nama tersebut di atas adalah benar telah melaksanakan penelitian di MTsN 3 Medan dari bulan Juli 2019 s.d Agustus 2019 dengan judul "The Effect of Duolingo Application on The Students' Achievement in Vocabulary".

Demikian Surat keterangan ini dibuat untuk dapat dipergunakan seperiunya.



September 2019

Dakwah Cici Mahruliana, M.Si
007/01997032001

Appendix XIV

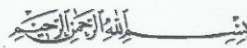


MAJELIS PENDIDIKAN TINGGI
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN

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Website : <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id

LEMBAR PENGESAHAN SKRIPSI



Skripsi ini yang diajukan oleh mahasiswa di bawah ini :

Nama Lengkap : Dina Amalia

N.P.M : 1502050268

Program Studi : Pendidikan Bahasa Inggris

Judul Skripsi : The Effect of Duolingo Application on the Students' Achievement
in Vocabulary

sudah layak disidangkan.

Medan, 02 September 2019

Disetujui oleh:
Dosen Pembimbing


Dr. Bambang Panca S, S.Pd., M.Hum

Diketahui oleh:



Dr. H. Elfrianto Nasution, S.Pd, M.Pd.

Ketua Program Studi,


Mandra Saragih, S.Pd, M.Hum

Appendix XV



MAJELIS PENDIDIKAN TINGGI
 UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
 FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN
 Jalan Kapten Mukhtar Basri No. 3 Telp. (061) 6619056 Medan 20238
 Website : <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id

BERITA ACARA BIMBINGAN SKRIPSI

Perguruan Tinggi : Universitas Muhammadiyah Sumatera Utara
 Fakultas : Keguruan dan Ilmu Pendidikan
 Nama Lengkap : Dina Amalia
 N.P.M : 1502050268
 Program Studi : Pendidikan Bahasa Inggris
 Judul Skripsi : The Effect of Duolingo Application on the Students' Achievement in Vocabulary

Tanggal	Materi Bimbingan Skripsi	Paraf	Keterangan
26/8/19	Acknowledgements	<i>h</i>	
	Chapter I - Objectives of study	<i>h</i>	
	Chapter II - Previous Relevant Studies.	<i>h</i>	
31/8/19	Chapter III - Location of Time - Research Design	<i>h</i>	
	Chapter IV - Chapter V - Conclusions.	<i>h</i>	
	Referensi.	<i>h</i>	
02/9/19	<i>h</i>	<i>h</i>	

Diketahui oleh :
 Ketua Program Studi

Mandra Saragih, S.Pd., M.Hum.

Medan, 02 September 2019

Dosen Pembimbing

Dr. Bambang Panca S, S.Pd., M.Hum

CURRICULUM VITAE



Personal Information

Name : Dina Amalia
Place / Date of Birth : Medan / 21st August 1997
Sex : Female
Religion : Islam
Address : Jalan Marelan II Psr. 4 Timur Gg.
Abadi

Parents

Father's Name : Drs. Lisanuddin, M.Pd
Mother's Name : Irmawati Rangkuti, S.Ag
Address : Jalan Marelan II Psr. 4 Timur Gg.
Abadi

Education

Elementary School (2003-2009) SDN 060842 Medan
Junior High School (2009-2012) Madrasah Tsanawiyah Negeri 3
Medan
Senior High School (2012-2015) Madrasah Aliyah Negeri 1 Medan
University (2015 - 2019) English Department of University of
Muhammadiyah Sumatera Utara

The effect of Duolingo Application on the Students' Achievement in Vocabulary

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