

**THE EFFECTIVENESS OF DUOLINGO APP ON STUDENTS'  
MOTIVATION IN LEARNING ENGLISH**

**SKRIPSI**

*Submitted in Partial Fulfillment of the Requirements For the Degree of  
Bachelor of Education (S.Pd)  
English Education Program*

**By:**

**WIDIYANTHI YULINAR MANURUNG**

**1902050118**



**UMSU**

Unggul | Cerdas | Terpercaya

**FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN  
UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA  
MEDAN  
2024**



**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](mailto:fkip@umsu.ac.id)

**BERITA ACARA**

Ujian Mempertahankan Skripsi Sarjana Bagi Mahasiswa Program Strata 1  
Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara



Panitia Ujian Sarjana Strata-1 Fakultas Keguruan dan Ilmu Pendidikan dalam Sidangnya yang diselenggarakan pada hari Senin, Tanggal 12 Februari 2024, pada pukul 08.30 WIB sampai dengan selesai. Setelah mendengar, memperhatikan dan memutuskan bahwa:

Nama : Widiyanthi Yulinar Manurung  
NPM : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Skripsi : The Effectiveness of Duolingo App on Students' Motivation in Learning English

Dengan diterimanya skripsi ini, sudah lulus dari ujian Komprehensif, berhak memakai gelar Sarjana Pendidikan (S.Pd).

Ditetapkan : (  ) Lulus Yudisium  
(  ) Lulus Bersyarat  
(  ) Memperbaiki Skripsi  
(  ) Tidak Lulus

**PANITIA PELAKSANA**

Ketua

Dra. Hj. Syamsyurnita, M.Pd.

Sekretaris

Dr. Hj. Dewi Kesuma Yudi S.S., M.Hum.

**ANGGOTA PENGUJI:**

1. Rita Harisma, S.Pd, M.Hum.
2. Dr. Mandra Saragih, S.Pd., M.Hum.
3. Yusriati, S.S., M.Hum.

1.   
2.   
3.



**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](mailto:fkip@umsu.ac.id)

**LEMBAR PENGESAHAN SKRIPSI**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Skripsi ini diajukan oleh mahasiswa di bawah ini:

Nama Lengkap : Widiyanthi Yulinar Manurung  
NPM : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Skripsi : The Effectiveness of Duolingo App on Students' Motivation in Learning English

Sudah layak di sidangkan

Medan, Januari 2024

Disetujui oleh:

Pembimbing

**Yusriati, S.S., M.Hum.**

Diketahui oleh:

Dekan

**Dra. Hj. Syamsuurnita, M.Pd.**

Ketua Program Studi

**Pirman Ginting, S.Pd., M.Hum.**



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](mailto:fkip@umsu.ac.id)

## PERNYATAAN KEASLIAN SKRIPSI



Saya yang bertandatangan dibawah ini :

Nama Lengkap : Widiyanthi Yulinar Manurung  
N.P.M : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Proposal : The Effectiveness of Duolingo App on Students' Motivation in Learning English

Dengan ini saya menyatakan bahwa skripsi saya yang berjudul "The Effectiveness of Duolingo App on Students' Motivation in Learning English" adalah bersifat asli (original) bukan hasil menyadur mutlak dari karya orang lain.

Bilamana dikemudian hari ditemukan ketidaksesuaian dengan pernyataan ini maka saya bersedia dituntut dan diproses sesuai dengan ketentuan yang berlaku di Universitas Muhammadiyah Sumatera Utara.

Demikian pernyataan ini dengan sesungguhnya dan dengan yang sebenar-benarnya.

Medan, Juni 2024  
Hormat saya  
Yang membuat pernyataan.

  
Widiyanthi Yulinar Manurung

## ABSTRACT

**Widiyanthi Yulinar Manurung. 1902050118. “The Effectiveness of Duolingo app on Students’ Motivation in learning English”. Skripsi. English Education Department, Faculty of Teacher Training and Education. Universitas Muhammadiyah Sumatera Utara. Medan. 2024.**

The purpose of this study is to determine the empirical evidence of the effectiveness of using Duolingo application on students' motivation in learning English. The formulation of the problem in this research is whether the use of duolingo has a significant effect on students' ability to master vocabulary. The method in this study uses pretest and posttest as data collection instruments. The data analysis technique of this research is (1) normality test (2) homogeneity test (3) hypothesis test in the form of t-test. Hypothesis testing uses the t test formula, which is preceded by a normality test and homogeneity test. the results of the t test showed that there was a significant effect, the value of sig (2- tailed) = 0.071<0.05. Therefore, H0 was rejected and Ha was accepted. The result indicated that using Duolingo is effective through students' vocabulary mastery and had a moderate effect at the students SMA Negeri 3 Tanjung Balai in the academic year of 2022/2023.

Keywords: *Duolingo, Vocabulary mastery*

## ACKNOWLEDGEMENT



All praised be to Allah, for the blessing given in finishing this research entitled “The Effectiveness of Duolingo App on Students’ Motivation in learning English” Shalawat and Salam to our prophet Rasulullah SAW which has brought us from the darkness until the brightness era. This research is serves as a partial fulfillment of the criteria for obtaining a bachelor's degree in the English Department.

In this opportunity, The researcher expresses gratitude to her parents for their unwavering support, encompassing prayers, guidance, encouragement, and both moral and material assistance, without which the completion of this study might have been insurmountable. Additionally, appreciation is extended to the following individuals:

1. Prof. Dr. Agussani, M.AP, as Rector of Universitas Muhammadiyah Sumatera Utara
2. Dra. Syamsuyurnita, M.Pd. as the Dean of Faculty of Teacher Training and Education, Universitas Muhammadiyah Sumatera Utara
3. Dr. Hj Dewi Kesuma Nasution, SS M.Hum. Deputy Dean I of the Faculty of Teacher Training and Education, Universitas Muhammadiyah Sumatera Utara.
4. Mandra Saragih, S.Pd, M.Hum. as the Deputy Dean III of the Faculty of Teacher Training and Education, Universitas Muhammadiyah Sumatera Utara.

5. Pirman Ginting, S.Pd., M.Hum. as the Head of the English Education Department of FKIP UMSU. And Rita Harisma, S.Pd. M.Hum as secretary of the English Education Department FKIP UMSU.
6. Yusriati, S.S., M.Hum. as a supervisor who has provided guidance and valuable suggestions for completing this research.
7. Rita Harisma, S.Pd. M.Hum. as an Proposal seminar examiner who directed her to finish this thesis.
8. All lecturers especially those from the English Education Program for guidance, advice, and encouragement during the study year.

Special thanks to individuals not explicitly named in this study. The researcher sincerely appreciates their contributions and this study proves beneficial to readers with an interest in the subject. The researcher anticipate that this marks the commencement of ongoing investigations, rather than a conclusive end. It is acknowledged that, despite the researcher's efforts, this study is not flawless. Consequently, the researcher welcome constructive criticism, comments, and suggestions to enhance and refine this research further.

Medan, Januari 2024

The Researcher

**Widiyanti Yulinar Manurung**

**NPM. 1902050118**

## TABLE OF CONTENT

ABSTRACT .....	i
AKNOLEDGEMENT .....	ii
TABLE OF CONTENT .....	iv
LIST OF APPENDICES .....	
<b>CHAPTER I INTRODUCTION.....</b>	<b>1</b>
A. Background of Study.....	1
B. Identification of the Problems .....	3
C. Scope of Limitation.....	3
D. The formulation of the Problems .....	3
E. The objective of the Study .....	3
F. The Significances of the Study .....	4
<b>CHAPTER II THEORITICAL REVIEW .....</b>	<b>5</b>
A. Theoritical Framework.....	5
1. Duolingo.....	5
2. Effectiveness .....	10
3. Vocabulary .....	11
4. Motivation .....	13
B. Previous Related Study .....	15
C. Conceptual Framework .....	16
D. Hypothesis.....	17
<b>CHAPTER III RESEARCH METHODOLOGY .....</b>	<b>18</b>



A. Time and Location of Research .....	18
B. Population and Sample.....	18
C. Research Variables .....	19
D. Research Method.....	19
E. Research Design.....	19
F. Instrument of the Research.....	20
G. Technique of Collecting Data .....	20
F. Technique of Data Analysis .....	21
<b>CHAPTER IV: RESEARCH FINDINGS.....</b>	<b>26</b>
A. Data Description.....	26
1. Score of Experiment Class .....	26
2. Score of Control Class .....	28
B. Data Analysis .....	31
1. The Normality Test .....	31
2. The Homogeneity Test.....	32
3. Analysis Test	32
4. The Effect Size Test.....	34
C. Data Interpretation.....	35
D. Discussion .....	36
<b>CHAPTER V: CONCLUSION AND SUGGESTION.....</b>	<b>37</b>
A. Conclusion.....	37
B. Suggestions.....	37
<b>REFERENNCES .....</b>	<b>39</b>

## **LIST OF APPENDICES**

# CHAPTER I

## INTRODUCTION

### **A. Background of Study**

Learning Motivation has a significant role in learning a foreign language whereas it is needed by the people in modern era. The function of learning it is very crucial so they must be highly motivated in mlanguage other than their mother tongue that is universally recognised and comprehensible worldwide. The English language is widely recognize (Azzolini, Campregher, & Madia, 2020) as a global language due to its extensive usage and prevalence across the world, English has become the global language because it brings effects from several aspects such as media, technology, and education for many countries in the world. The English language's power can benefit building cooperation in the business field, such as developing and strengthening business relations.

English as a foreign language in Indonesia was taught from primary school up to university level. Despite this fact, some students in Indonesia are not aware that English is an important subject that should learned and they are not interested in English because they are taught that English is hard to learn. One of the important aspects in learning any language is mastering vocabulary foreigners learn a new language without mastering the vocabulary of the language they will find it difficult to understand that language. Vocabulary is essential for students to develop their reading, writing, speaking, and listening skills.

It is difficult to master the other competences without mastering and understanding

the vocabulary well. In learning English the students should know about vocabularies, because by knowing the words, they will try how to use it to express their ideas and to communicate. A teacher must understand the significance of language in teaching and develop effective techniques to include it. The goal of adopting multiple teaching styles is to ensure learners absorb the lesson effectively. They will not become bored throughout the teaching or learning process.

Technology can make it easier, especially having to provide opportunities and help students improving the quality of language learning, technology can be used for engaging and complementary tools to facilitate learning, to make learning more fun and interesting. we can use media, the media that is commonly used as additional support in learning English is the Duolingo application. The Duolingo application is a free language learning application that can be downloaded on mobile phones or PCs, so that users can practice at any time. Duolingo is a mobile learning app which consists of many activities such as vocabulary, reading, writing, listening, grammar as well and speaking especially for beginners in learning English they can practice anytime and anywhere, Duolingo uses a strategy of game mechanics to create incentives for students to continue learning. Duolingo is made very much like a computer game where participants have to do it by passing certain levels.

Based on the author's observations at SMA Negeri 3 Tanjung Balai, the

author found crucial factors that made it happen students who are reluctant to learn English are their vocabulary weaknesses. When teacher explaining the material in English, the students just kept quiet, did not respond. However, when the teacher explained the material in Indonesian, the students interested and a communicative learning process occurs.

therefore the author is interested in conducting research using Duolingo, because Duolingo is one of the widely used English learning applications, whether duolingo is effective in increasing students' motivation to learn English, especially mastering vocabulary. According to Ana Paula De Castro's research, Duolingo can assist students improve their vocabulary, it has been demonstrated that there is a considerable difference in students' vocabulary and grammatical structure performance before and after using Duolingo.

## **B. Identification of the Problems**

Based on the background of the study above, the problem can be identified as:

1. Most of the student have limited diction in using vocabulary
2. Students have less interest in learning vocabulary.

## **C. Scope and Limitation**

Based on the problem identification above, this research only focuses on finding the effectiveness of using the Duolingo app to increase Students' motivation in learn English vocabulary.

#### **D. The Formulation of the Problems**

The Problem was formulated as the following: Is the use of Duolingo effective in increasing students' motivation to learn and master English vocabulary?

#### **E. The Objectives of the Study**

The research objective is as follows: Duolingo is effective in increasing students' motivation to learn English vocabulary

#### **F. The Significances of the Study**

##### 1. Practically

This research is expected to be useful for:

- a. For the teachers, provide teachers with more information about new types of educational media applications that can be adapted and applied used to teach and improve teacher quality in English class.
- b. For students, Duolingo is more enjoyable way of learning and is expected to give students interest in learning English and knowledge about it.
- c. This research can be used as one of the resources about the new type of media for teaching and learning and as the basic information for further studies by others.

##### 2. Theoretically

This study is important because it explores the potential of educational technology to increase motivation and engagement in language learning.

## **CHAPTER II**

### **THEORITICAL REVIEW**

#### **A. Theoritical Framework**

##### **1. Duolingo**

###### **1.1 Definition of Duolingo**

Duolingo is a free application created by Luis Von Ahn and Severin Hacker in November 2011 its slogan is “Free language education for the world.” according to its website, Duolingo has more than 30 million register non-English speakers. as one of the language learning applications, Duolingo can help someone to develop their vocabulary knowledge in communication their users, it offers multiple languages for English speakers as well as others for non-English speakers. Through the process of Duolingo application, the students gain new words easily based on their own will.

Duolingo provided vocabulary practice and gave opportunities for students to evaluate their knowledge and identify the need to continue improving, it means that Duolingo is presented as an educational tool that can be integrated into the classrooms in order to provide a new learning experience for the student, and it is based on content quality, feedback, and motivation. thus, Duolingo application is important for the students to learn language in order to increase their motivation and make this application more enjoyable. using Duolingo in learning English can gain positive feedback from both students and teacher, in addition, the students



who need to expand their vocabulary can use Duolingo application.

## 1.2 The Characteristics of Duolingo Application

Duolingo as a free language learning application can offer a wider reacha set of features that require an internet connection during use application, Duolingo application features include:

1. Achievements are features of the Duolingo application and are awarded when: which learner or user completed the lesson the most effort.



Figure 1.1 Achievement

2. Lingots is a small jewel icons that the learners have completed the activities and level successfully to get "lingots". It can be changed for bonus extra practices.



Figure 1.2 Lingots

3. Daily Goal is about appreciation for the learners who have completed a daily goal. Duolingo application gives a rewards to them with surprising sounds and unique pictures and make the learners feel more enjoyable.



Figure Daily Goal 1.3

#### Common exercises in duolingo app

Duolingo application also provides learners with various types of exercises within a lesson or unit, such as:

1. Listening, in which the users will hear an audio clip of word or sentence and have to type it correctly.
2. Vocabulary, in which the users be asked to choose it with the correct answer.
3. Translation in which the users will be asked to translate a word or a sentence into the language they want to know or learn.
4. Pronunciation, in which the users will be asked to repeat or say sentences that they hear.



Figure Listening 2.1 figure Vocabulary 2.2

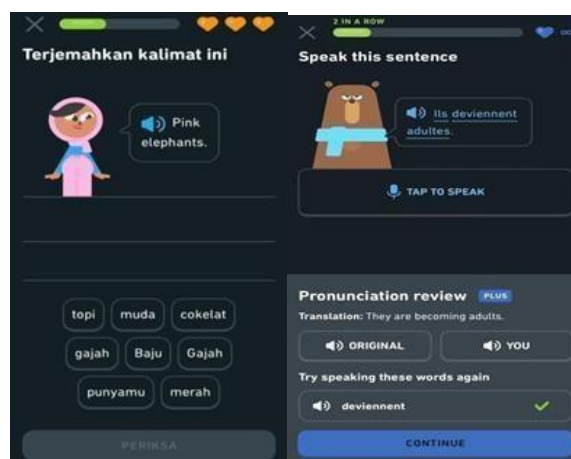


Figure Transation 2.3 figure Pronunciation 2.4

### 1.3 The Advantages and Disadvantages of duolingo app

According to Latief (2019:33-34) Duolingo as a learning media have some advantages, there are:

- 1) Duolingo as a learning media app is a user-friendly learning app, with free, simple and informative lessons. Learning is based around subjects.
- 2) Duolingo as a learning media that Teaches grammar rules. For example. masculine and feminine, plural.

- 3) Duolingo as a learning media provides tips and notes about grammar at the bottom of each lesson.
- 4) Duolingo as a learning media can be accessed on various electronic devices like mobile phone or PC, so learners can keep a detailed record of progress.
- 5) Duolingo as a learning media can set daily goals for motivation.
- 6) Duolingo as a learning media has a virtual shop with rewards for progress.
- 7) Duolingo as a learning media offers courses and is taught in various languages.

Furthermore, this app also has some disadvantages as follows:

- 1) This application Requires internet access.
- 2) This application doesn't teach much about culture.

## **2. Vocabulary**

### **2.1 The Definition of Vocabulary**

Rosyidah (2017: 30) vocabulary is knowledge of words and their meanings in spoken and written form and is used in four skills in language (Speaking, reading, listening and writing). It means that vocabulary is knowledge of words and the meaning of words used in the four components of language learning namely speaking, writing, reading and listening in oral and printed form. In addition Based on the statement above the researcher concludes vocabulary is knowledge of words, word sets, number of words with their meanings. Vocabulary consists of two or more words but explains one idea,

this vocabulary is used by someone in speaking and writing because vocabulary is an important component in language that must be mastered ]because vocabulary is used to support communication. someone will be easier to communicate if have a lot of vocabulary.

## **2.2 The Kinds of Vocabulary**

Vocabulary has some kinds. According to, Nawati (2015:204)

There are several kinds of vocabulary:

1) Oral vocabulary, this vocabulary consists of words that are actively used in speech in the language of speaking.

2) Writing vocabulary is vocabulary consisting of words used at the time of writing.

that explains there are two types of vocabulary, namely, the first is oral vocabulary and written vocabulary, oral vocabulary is the vocabulary that someone uses when speaking, this vocabulary is related to sound, while Writing Vocabulary is the vocabulary that a person uses when writing.

## **3. Motivation**

### **3.1 Definition of Motivation**

Motivation comes from a word 'motive' which means a reason. It refers to the condition where someone does something because of an interest. It is one of the supporting factors for someone to be success in doing activities. Every activity requires motivation as a reason that can push someone to do in especially in learning languages. Melendy (as cited in Husna and

Murtini, 2019, p. 209) stated that motivation is interpreted as a process that started with a necessity and guide to a behaviour that drives someone to achieve an aim. In addition, Lai (as cited in Purmama, Rahayu & Yugafiati, 2019, p. 539) stated that motivation is a reason that underlies behaviour that indicate by students' willingness and desire in English learning. From the statements above, motivation called as the most needed component in learning Engl because it is critical success for students. It also drives students to get certain purposes because there is the will to do so. It also can influence students in behaving. In the presence of motivation, students are more excited, so learning English is going well.

### **3.2 Type of Motivation**

Baily and Garratt (as cited in Rehman, et. al., 2014, p. 255) are categorized motivation in general can be classified into two types, as follow:

#### **1. Intrinsic Motivation**

Intrinsic motivation is an impulse that comes from the individual itself. According to Santrock (as cited in Fachraini, 2017, p. 49—50) intrinsic motivation is an impulse of will from within an individual in doing something. Ciccarelli & White, 2012, p. 344) adds that students have intrinsic motivation when they are doing an action because they feel the act is interesting, rewarding, challenging, or satisfying.

#### **2. Extrinsic Motivation**

Extrinsic motivation is an impulse that comes from external factor also influenced. Factors can be from the parents, teachers, or the social environments.

The influences can be rewards or keep away from punishment. This kind emphasizes of the external need to demand the students to follow in activities of learning (Arnold as cited in Nguyen, 2019, p. 53).

#### **a. The Role of Motivation in Learning**

Motivation plays an important role in teaching and learning process. Basically, motivation can help in understanding and explaining individual behaviour, including the behaviour of individuals who are learning. According to Unoin Christianto and Karin (2019, p. 176), there are several important roles of motivation in learning

#### **B. Previous Related Study**

There have been several studies conducted regarding the effectiveness of Duolingo for learning English the first study entitled "*Students' Motivation to Learning English using Mobile Application: The case of Duolingo and Hello English*" Tuti Hidayati & Sari Diana (2019) these findings result that in general students have a strong motivation in learning English and demonstrate good engagement with the application when they study on their own outside of class. the second research is entitled "*Gamification of Duolingo in rising Student's English Language Learning Motivation*" by Sausan Nafis Amin (2021) This study demonstrates that, despite varying rates of growth, Duolingo can inspire EFL students to acquire their second language. It is based on numerous variables. Some of these are internal learning variables, like as curiosity, interest, or a desire to succeed. for outside variables, such as the impact of learning contexts, the learning environment, and the impact of other people. According

to the researcher, Duolingo has a huge influence on students since it contains engaging gamification features like leader boards, achievement, points, and levels that encourage people to keep learning by using Duolingo.

The next previous study is taken from Sausan Nafis Amin. He was student of State Islamic Institute of Tulungagung. The research talks about the effectiveness Duolingo application for improving vocabulary ability at seventh grade of MTsN3 Tulungagung. This research used pre-experimental research which belongs to the quantitative method. The result shows that the mean score of post-test score (72.80) was larger than the mean of pre-test score (57.20). It means that the use of Duolingo application has caused in improving students' vocabulary.

From those three previous studies, there are some differences aspects between them and this research. Those differences are, the research from Musa Nushi and Mohammed Hosein Eqbali is that they used qualitative research to describe the advantages of Duolingo and how to use this application, while in Ahmad Fauzi Ridha's research. Even though there are some differences described above, but this research and those researches have same the variable that is Duolingo.

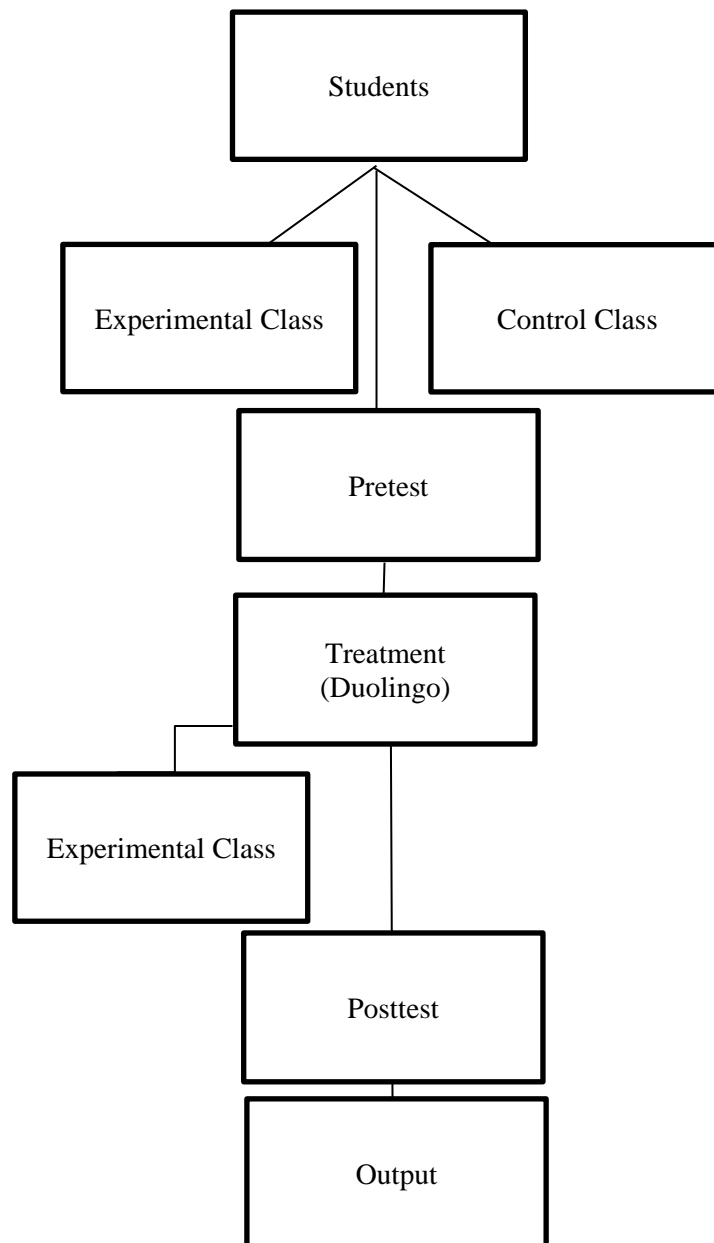
Therefore, that could be concluded that the Duolingo application could significantly improve the vocabulary ability of the students. Based on the result of data analysis showed that the increasing score. It means that there was the improvement of students' vocabulary ability when they were taught by using Duolingo application.



### **C. Conceptual Framework**

As explained in the review of literature above, it shows that motivation has an important role in learning English. Motivation cannot be separated in the learning process. Even though English is an international language, learning it is certainly not easy because there are differences in structure, in learning English it should be more enjoyable and fun for the students, as the result the students will be interested in the teaching learning process. The correlation between teaching English and teaching methods is significant, and utilizing the Duolingo application as a learning tool is expected to aid students in learning English outside the classroom.

For more details can be seen in the following framework.



#### **D. Hypothesis**

The hypothesis are:

- a.  $H_a$ : there is a significant influence of Duolingo app in improving students' motivation in learning English
- b.  $H_0$ : there is no significant influence of Duolingo app in improving students' motivation in learning English

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Location and Time of Research

This research was conducted at SMA Negeri 3 Tanjung Balai, The implementation is carried out in class XI year 2023 which is located at JL. SMAN 3 Tanjung Balai, Gading, Kec. Datuk Bandar, Kota Tanjung Balai. this study conducted from August to September 2023.

#### B. Population and Sample

The population in this study is students of two class XI SMA Negeri 3 Tanjung Balai, this sampling technique uses saturated sampling technique as a sampling method in which every member of the population is treated as a sample. The sample in this study are students of class XI SMA Negeri 3 Tanjung Balai. in this study consisted of two classes, namely one experimental class and one class aka control class. by applying conventional learning. So the number of samples use in this study is 50 grade XI students.

Select control group	Pretest	No treatment	Post-test
Select experimental group	Pretest	Experimental treatment	Post-test

### **C. Research Variables**

In this study there are two related variables namely:

1. The independent variable is "Duolingo app usage" The use of this application can be measured by the frequency of use, duration of use, or learning progress achieved through the application.
2. The dependent variable is "students' motivation in learning English" Student motivation can be measured using various indicators such as the level of interest, involvement, or consistency in using the Duolingo application.

### **D. Research Design**

The research use quasi experimental design research, one group for experiment class and the other group for the control class. The research conducted a pre-test to determine students' vocabulary knowledge before being given the treatment. Then students were given treatment by using the Duolingo and at the final meeting students were given a post-test to find out the students' vocabulary knowledge after the treatment this was done to determine significance of the students' pre-test and post-tests cores.

### **E. Instrument of the research**

in this research, the researcher take test, the test is use for measuring students vocabulary knowledge. The researcher use multiple choice test that consists of 20 items with a, b, c and d, which is in the student's English textbook as an instrument. The researchers also used a questionnaire as an instrument to determine student motivation in learning English.

### **F. Technique of Collecting Data**

To collect data this research uses pre-test and post-test. Pre-test given to the experimental and control classes before receiving the treatment determine the extent of students' interest in learning English.

#### **1. Pre-test**

Pre-test Conduct a test to measure the level of English proficiency and student motivation before using the Duolingo application. This technique makes it possible to assess students' abilities before using Duolingo.

#### **2. Treatment**

In this study, researchers gave treatment to students learning process by using duolingo application.

#### **3. Final test (post test)**

After the treatment, the next action is post -test to measure the level of English proficiency and students' motivation after using the Duolingo

application. This technique is to assess any improvement in their language skills and motivation over time.

#### 4. Questionnaire

In research questionnaire was used to determine student motivation in learning English

### **G. Technique of Data Analysis**

In analyzing the data, some techniques will be as follow:

#### 1. Normality Test

According to (Rohaeti, 2021) the data normality test is a form of testing the normality of the data distribution. The purpose of this test is to determine whether the data taken is normal data or not. In this study, the normality test used the Kolmogorov-Smirnovatest. Testing the normality of the data with the Kolmogorov-Smirnovatest can be done with the help of the SPSS version 16.0 for windows program with the significant level used is 5% (0.05).

a) If  $sign > 0.05$  then the data is normally distributed.

b) If the  $sign < 0.05$  then the data is not normally distributed.

#### 2. Homogeneity Test

Homogeneity test of variance test aims to determine whether the data pair to be tested for differences represents the variance that is classified as homogeneous (not different) (Rohaeti, 2021). This is

done because to use a different test, the variance of the data group to be tested must be homogeneous.

To simplify the calculation of data homogeneity, the researcher used the SPSS version 16.0 for windows program with the following conditions:

- 1) The value of  $\text{sig} > 0.05$  then the data has a homogeneous variance.
- 2) The value of  $\text{sig} < 0.05$  means that the data has a non-homogeneous variance.

### 3. Hypothesis Test

Hypothesis testing was used to compare two unpaired samples using the t-test Independent Sample T test with the help of SPSS version 16.0 for windows. The t-test was used to test the significance of the difference in the average class effect. The requirements for the Parametric Statistical Test are that the data must first be confirmed to be normal. According to Imam Ghozali (2012:66) the conditions used in the significance value (Sig) are:

- 1) If the value of Sig (2-tailed)  $< 0.05$ , then there is a significant difference between learning outcomes in experimental class and control class
- 2) If the value of Sig (2-tailed)  $> 0.05$ , then there is no significant difference between learning outcomes in experimental class and control class.

## **CHAPTER IV**

### **RESEARCH FINDING AND DISCUSSION**

#### **A. Research Finding**

##### **1. The Description of Data**

In this chapter, the researcher presents a description of the data of the research results from the sample, namely students of class XI-3 and XI-4 at SMA Negeri 3 Tanjung Balai. The results of this study are used to obtain empirical evidence about the effect of using the Duolingo application to develop students' vocabulary knowledge. The data was collected from students' pre-test and post-test scores of the experimental and control classes.

##### **a. Data Results of Experimental Class**

The students who became the research subjects were students of class XI-3 SMA Negeri 3 Tanjung Balai, consisting of 25 students, who learned using Duolingo application. Students' pre-test scores were collected before receiving the treatment. Then, students' post-test scores were collected after the author implemented the Duolingo application. The results can be seen in Table 4.1

##### **2. Score of Experiment Class**

The data were gained from the result of the pre-test and post-test of experiment class at SMA Negeri 3 Tanjung Balai. The following are the description:



**Table 4.1**  
**Students' Score of Experimental Class**

<b>Students</b>	<b>Pre-test</b>	<b>Post-test</b>	<b>Gained Score</b>
PH	60	90	30
RL	70	80	10
MR	65	75	10
WG	65	95	30
JM	60	85	25
RKM	55	85	30
BD	50	80	30
ZB	60	90	30
SR	70	90	20
HT	75	95	20
IAF	60	80	20
ES	65	80	15
MM	55	85	30
MK	75	100	25
JH	75	80	5
WJ	65	85	20
MP	60	80	20
KM	70	90	20
MR	70	95	25
YM	60	85	25
KK	65	75	10
LL	55	85	30
SU	70	95	20
DD	75	80	5
TA	70	75	5
<b>Mean</b>	<b>60,625</b>	<b>85</b>	

Table 4.1 presents the post-test scores. The scores were obtained after the treatment using Duolingo. Based on the post-test results, it can be seen that

the post-test average increased to 85 this means that the average student has passed the criteria or above the minimum completeness criteria.

From the data description from pre-test to post-test, it can be concluded that there is a positive effect of using Duolingo application on students' vocabulary mastery.

### 3. Score of Control Class

The data were gained from the result of the pre-test and post-test of control class at SMA Negeri 3 Tanjung Balai. The following are the description:

**Table 4.2**  
**Students' Score of Control Class**

Students	Pre-test	Post-test	Gained Score
AR	65	70	5
IHB	70	65	-5
PM	65	60	-5
HF	75	75	0
YS	55	70	15
DNP	70	85	15
DN	55	70	0
RS	65	60	0
AT	70	70	0
NAS	65	75	10
NP	60	60	0
SK	80	80	0
FN	75	75	0

RH	75	85	10
SFA	70	70	0
SW	65	65	0
SL	75	80	5
YH	80	75	5
KK	80	80	0
SF	65	70	5
SR	70	70	0
YM	80	80	0
MY	60	65	5
YG	70	75	5
Y	70	70	0
<b>Mean</b>	<b>69</b>	<b>68,8</b>	

Based on the data in table 4.2, the pre-test results in the control class has an average pre-test score of 69 out of 25 students. This means that on average students have not reached the Minimum Completion Criteria (KKM) in English subjects. This is the same as the experimental class which has an average score of 60,625 out of 25 students. As a further illustration, the table also presents the post-test scores. The scores obtained after the teaching and learning process but not using the Duolingo application in learning activities. Since this class is a control class, it did not receive the same treatment as the experimental class. The students were only guided by the teacher during the teaching and learning process to gain understanding in the descriptive text and

also enrich their vocabulary.

Based on the post-test results, it can be seen that the average post-test score in the control class also increased with a score of 68,8. The highest score of the post-test in the control class was 85 and the lowest was 55. From the differences in students' scores above, it can be seen that there is a positive improvement of students' grades in learning English. However, the post-test results showed that some scores were still below the minimum completion criteria (KKM) at SMA Negeri 3 Tanjung Balai. So it is believed that the class taught without using the Duolingo application still has difficulty passing the KKM. Overall, the difference in student scores in table 4.1 and table 4.2, it can be concluded that there is a positive effect of using the Duolingo application through students' vocabulary mastery.

## **B. Data Analysis**

The below description presents the way of pre-analysing and analysing the data that have been collected.

### **1. Validity test**

In testing the validity of an instrument, the first way is to do content validity. Several experts have checked this research instrument. In addition, researchers also use SPSS 24 to find out how carefully an instrument measures what it wants to measure. Pearson Product Moment is used in this validity test. Decision-making in this validity test uses the  $r$  table limit with a significance of 0.05. If the correlation value is above 0.330, so the sample

in the study is considered sufficient and valid. The results of the validity test of each research instrument can be presented in the following table.

From the table above, it is known that all question items have a value of  $r$  count bigger than  $r$  table. It can be concluded that the 10 items on the questionnaire are valid.

## 2. Reliability Test

The reliability test is used to see whether the questionnaire has reliability and consistency if measurements using the questionnaire are carried out repeatedly. The Cronbach Alpha reliability test was used in this study. The reliability test criteria are if the alpha value is  $> 0.60$ , it means that the statement is reliable. If the alpha value is  $\leq 0.60$ , it means that the statement is unreliable. The reliability test results will be displayed in more detail in the table below.

### The Result of Reliability test

No.	Item	Standar Cronbach's Alpha	Cronbach's Alpha	Description
1.	Q1	0,60	0,921	Reliable
2.	Q2	0,60	0,923	Reliable
3.	Q3	0,60	0,924	Reliable
4.	Q4	0,60	0,922	Reliable
5.	Q5	0,60	0,923	Reliable
6.	Q6	0,60	0,921	Reliable
7.	Q7	0,60	0,923	Reliable

8.	Q8	0,60	0,922	Reliable
9.	Q9	0,60	0,924	Reliable
10.	Q10	0,60	0,922	Reliable

The reliability test results in the table show that the alpha value is more than 0.60. It can be concluded that all question items in the questionnaire are reliable.

### 3. Normality Test

In this research, the normality of pre-test and post-test on both the experimental and control class were gained from using Lilliefors in IBM statistics SPSS 2.5. The result shown as follow:

**Table 4.3**  
**The Result of Normality Test of Pre-test Score at the Experiment and Control Class**  
**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test experimental class	.167	25	.071	.933	25	.101
Pre-test control class	.147	25	.174	.933	25	.102

a. Lilliefors Significance Correction

**Table 4.4**  
**The Result of Normality Test of Post-test Score at the Experiment and Control Class**  
**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Post-test experimental class	.155	25	.125	.935	25	.112
Post-test control class	.169	25	.063	.940	25	.144

a. Lilliefors Significance Correction

The results of the normality test in table 4.3 show that it is significant the experimental class level was 0.071 and 0.101 and the control class was 0.174 and 0.102. This means the probability value (p) for both experiment and control This class is higher than ( $>$ ) 5% degree of significance ( $\alpha = 0.05$ ). Therefore, it is so concluded that the pretest data for the experimental class and control class were normally distributed.

In the table 4.4, the result of the normality test for the post test showed that the significance level of the experimental class was 0.125 and 0.112 and the control one was 0.063 and 0.144. It means that the probability value (p) of both experimental and control class was higher than ( $>$ ) the degree of significance 5% ( $\alpha = 0.05$ ). Therefore, it is concluded that the data of both the experimental and the control class was normally distributed.

#### **4. Homogeneity Test**

Homogeneity test is required as prerequisite analysis test. To calculate it, theresearcher used *Levene* Statistic Test from IBM Statistics SPSS 2.0 software. The obtained result was as follow:

**Table 4.5**  
**The Homogeneity Test of Pre and Post-test at the Experiment**  
**and Control Class**

		Levene Statistic	df1	df2	Sig.
hasil pre test	Based on Mean	.528	1	44	.471
	Based on Median	.447	1	44	.507
	Based on Median and with adjusted df	.447	1	43.746	.507
	Based on trimmed mean	.514	1	44	.477

### Pre-test

		Levene Statistic	df1	df2	Sig.
hasil post test	Based on Mean	.137	1	44	.713
	Based on Median	.109	1	44	.743
	Based on Median and with adjusted df	.109	1	43.673	.743
	Based on trimmed mean	.129	1	44	.721

### Post-test

From the result of the *Levene* Statistic Test, it has seen that the significance level or probability value (p) of the data from the experiment and control's pre-test score was 0.471. Meanwhile the post-test homogeneity score was 0.713.

It means that the significance level or probability value (p) of the data was higher than the significance degree ( $\alpha = 0.05$ ). The result of homogeneity test showed that the sample data from the population has homogenous variance.

## 5. Analysis Test

Following the completion of the homogeneity and normality tests, this is the final stage of data analysis. The pre-test and post-test scores for the experimental and control classes both matched the requirements of the normality test, and the variance of the two classes (samples) was similar or homogeneous. The independent t-test was utilized by the author. The independent t-test is a statistical technique used to compare data from two group samples.

Independent sample t-test is used to compare the means or averages of the two separate samples (the experiment and the control class) to see if there was statistical proof that the means were statistically substantially different. The writer utilizes a t-test to determine the differences between the vocabulary mastery scores of students using and not utilizing the



Duolingo application. Moreover, the calculations and tests were performed using IBM Statistics SPSS 2.5 software to do the calculation or the test.

The result of the calculation as follows:

**Table 4.6**  
**Independent T-Test of Post-test score of Experiment and Control Class**

		Levene's Test for Equality of Variances				t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
hasil test	Equal variances assumed	.103	.749	7.748	48	<.001	<.001	16.400	2.117	12.144	20.656
	Equal variances not assumed			7.748	47.870	<.001	<.001	16.400	2.117	12.144	20.656

Thus, based on the T- test calculation above, the degree of freedom (df) is According to the T-test computation described above, the degree of freedom (df) is 48, the critical value (ttable) is 2.00 using a 5% level of significance, and the tobserved is 7.74. It indicates that the experimental class's post-test score was greater than the score for the control group. The comparison produced the value  $7.74 > 2.00 = \text{tobserved} > \text{ttable}$ .

According to the hypothesis, the  $df = 48$  and the degree of significance 5% have a value of 2.00 (obtained based on the  $df = 48$  and  $\alpha = 0.05$ ). By comparing the value tobserved (7.74) is higher than ttable (2.00), the alternative hypothesis ( $H_a$ ) is accepted while the null hypothesis ( $H_0$ ) is rejected. As a consequence, it can be said that the outcomes of utilizing the Duolingo program to teach descriptive vocabulary to students in the eleventh grade at SMA Negeri 3 Tanjung Balai during the academic year 2022/2023 varied significantly. Effect Size Formulaton

This is the addition calculation that used by the author. This was used to measure what level of the effectiveness from the treatment of the research. the means and the standard deviations of pos-test from experimental and controlled class are required which have been obtained from group descriptive statistics table. It can be seen the data as follows:

$$d = \frac{\text{mean of experimental group} - \text{mean of control group}}{\text{Pooled standard deviation}}$$

Pooled standard deviation

Statistics			
		control	experimental
N	Valid	25	25
	Missing	0	0
Mean		68.80	85.20
Median		70.00	85.00
Std. Deviation		7.676	7.286
Range		25	25

Mean for experimental group = 85.20

Mean for controlled group = 68.80

an for experimental group – mean for controlled group = 16.4

Standard deviation of group 1 = 7.286

Standard deviation of group 2 = 7.676

Pooled standard deviation (standard deviation of group 1 + standard deviation of group 2) = 7.286 + 7.676 = 14.962

$$d = \frac{\text{mean of experimental group} - \text{mean of control group}}{\text{Pooled standard deviation}}$$

$$d = \frac{85.20 - 68.80}{14.962}$$

$$14.962$$

$$d = \underline{16.4}$$

14.962

d= 1.09

After getting the result of formulation, the result will be interpreted based on the following criteria:

0 – 0.20: weak effect

0.21 – 0.50: modest effect

0.51 – 1.00: moderate effect

> 1.00: strong effect

As stated from the formulation above, the result of effect size formulation in this research was 1.09. It indicates that using *Duolingo* application had strong effect towards students' vocabulary mastery.

### **C. Data Interpretation**

According to the data analysis above, it shows that there is a strong difference in students' vocabulary mastery between the experimental class which is given a treatment using *Duolingo* and the control class which is not. The pre-test score of experiment class and controlled class has the mean value of 60,625 and 69 while the minimum criterion was 75. It means in the pre-test, both classes did not covered the minimum criterion in average. Then, after applying treatment that is *Duolingo* into the classroom, the mean of experiment class is 85 and the mean of controlled class which is not using *Duolingo* is 68,8. It indicates that experimental class covered the minimum criterion, and the control class did not

covered the minimum criterion. It means that based on the score, the vocabulary mastery of the experimental class had improved more significantly after using *Duolingo* compared with the control class which is not using it.

There were 25 students in experimental group and also 25 students in control group. Therefore, the degree of freedom (df) is  $(25 + 25) - 2 = 48$ . By the degree of freedom of 48 and the degree of significance of 5% ( $\alpha = 0.05$ ), it was calculated that the critical value was 2.00. The result of the statistic calculation showed that the value of  $t_{\text{observe}} = 7.74$ , it is higher than the  $t_{\text{table}} = 2.00$ . Therefore the null hypothesis ( $H_0$ ) is rejected and alternative hypothesis ( $H_a$ ) is accepted. The alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. It means that there is positive effect of using *Duolingo*. *Duolingo* application gives positive effect on students' vocabulary mastery at eleven grade of SMA Negeri 3 Tanjung Balai.

The majority of students think using *Duolingo* is fun, simple, and beneficial. Most of students said that using *Duolingo* had improved their English skills and that they would suggest it to others. On the other hand, the remaining portion of pupils are uneasy using *Duolingo*. They just aren't accustomed to using smartphones in the classroom because it is forbidden, not because they dislike using them. They continue to appreciate utilizing it more than traditional instruction that excludes digital media. Perhaps the smartphone-based English learning application may become widely employed in classroom learning activities in the future, especially in Indonesia.

In conclusion, since the statistical data showed that alternative hypothesis

was accepted (toobserve > ttable), and the responses of the students' through the questionnaire are positive, it is indicated that using *Duolingo* is effective on students' vocabulary mastery.

#### **D. Discussion**

When doing the investigation, the researcher discovered a few issues. The students' unease when attempting to utilize Duolingo was the first. They weren't accustomed to using smartphones throughout the hour of educational activities. The second was the timing of the lesson and the internet connection. The slow internet connection made time management extremely difficult when the researcher initially entered the classroom and began using Duolingo. pupils with speedier internet connections completed their assignments more quickly than other pupils. Therefore, using the computer lab is safer due to the available wifi connection.

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### A. Conclusion

The goal of this study is to determine empirical evidence of the impact of using the Duolingo program on students' vocabulary mastering at SMA Negeri 3 Tanjung Balai students in the eleventh grade in the academic year 2022/2023. It serves as still more evidence in support of the aforementioned hypotheses and earlier research on the subject.

The statistic calculation suggested that  $t_{\text{observe}} = 7.74$  and  $t_{\text{table}} = 2.00$  based on the data gathered after performing this investigation. The writer concludes that  $t_{\text{observe}}$  is greater than  $t_{\text{table}}$  ( $t_{\text{observe}} > t_{\text{table}}$ ,  $7.74 > 2.00$ ), after evaluating the two by each value of degree significant. The alternative hypothesis ( $H_a$ ) was accepted while the null hypothesis ( $H_0$ ) was rejected since  $t_{\text{observe}}$  is greater than  $t_{\text{table}}$ . Consequently, there are , the effect size reveals that using Duolingo gives strong effecton students' vocabulary mastery.

The study came to the final conclusion that utilizing Duolingo was successful in raising students' motivation to mastering English vocabulary, particularly for students in the eleventh grade at SMA Negeri 3 Tanjung Balai in the academic year 2022/2023.

#### B. Suggestion

After conducting this study, the researcher came to the conclusion that teachers should be more creative in their teaching to boost students' motivation for learning English, particularly vocabulary, and to prevent boredom in the classroom.

Teachers have a privilege in the digital age since there are so many relevant media resources they may employ to enhance their instruction. It is advised to use Duolingo as it has been demonstrated to have a beneficial impact on the vocabulary mastering of eleven students at SMA Negeri 3 Tanjung Balai during the academic year 2022–2023. The goal is to increase the students' enthusiasm in learning English.

The students now have a new tool for learning English in the form of Duolingo, a game-based program that makes studying more enjoyable. Along with vocabulary, additional language skills including pronunciation, grammar, easy translation, and rudimentary writing can also be learnt. The students also have a responsibility in acquiring vocabulary to not only depend on the material provided in the classroom, but to practice more at home since it can be accessed anywhere and anytime.

It is hoped that this research will provide readers with fresh knowledge and serve as a resource for other scholars. As there could be a gap in this research, the researcher hopes that subsequent research on the same topic or one unrelated to it will be conducted by another researcher in order to advance our understanding of teaching and learning.

## REFERENCES

- Aebbersold, J. A. (1997). *From Reader to Reading Teacher*. Cambridge University Press.
- Agnes, D. H. (2015). "Mobile Pedagogy for English Language Teaching: A Guide for Teachers". *ELT Research Papers London: British Council*, 13.
- Amin, S. N. (2021). Gamification of Duolingo in rising students' English Language Learning Motivation. *ejournal UIN satu*, 204.
- Brown, H. D. (2000). *Principles of Language Learning and Teaching, Fourth ed.* East Lansing : Longman.
- Castro, A. P. (2016). Duolingo: an experience in English teaching. *Journal of Educational and Instructional Studies*, 59-64.
- Diana, T. H. (2019). Students' Motivation to learn English using mobile applications: the case of Duolingo and Hello English. *semantics scholar*, 203.
- Dimiyati, M. (2006). *Belajar dan pembelajaran*. Jakarta: Rineka Cipta.
- Elliott, S. N. (2001). *Educational psychology : effective teaching, effective learning*. New York: McGraw-Hill.
- Gardner, R. (1985). *Social psychology and second language learning : the role of attitudes and motivation*. London: Edward Arnold.
- Gardner, R. C. (1972). *Attitudes and motivation in second language*. East Lansing: Newbury House Publishers.
- Hayikaleng, N. N. (2016). *The Students Motivation on English Reading Comprehension*. Malaysia: Utara Malaysia University.
- Hornby, A. S. (2000). *Oxford Advanced Learner's Dictionary of Current English*. Oxford: Oxford University Press, 7.
- Jaskova, V. (2014). Duolingo as a new language learning. *website and its contribution to elearning education*.
- Kothari, C. (2004). *Research Methodology (Methods and Techniques)*. New Delhi: New Age Publisher.
- Latief, J. A. (2019). The Implementation of Duolingo Android Application and Autonomous Learning to Enhance the Students' Writing Simple sentence.



*FKIP IAIN Salatiga.*

Munday, P. (2016). The case for using duolingo as part of the language classroom experience. *Sacred Heart University*, 19(1), 83-101.

Saksono, B. P. (1984). *The teory of the effectiveness*. Jakarta: Publisher PT. GrahaGresik.

Spoles. (2008). Measures of Effectiveness. *A white paper by Technology Digest*, 3. Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: ALFABETA, CV.

Willis, J. (2008). Teaching the Brainto Read: Strategies for Improving Fluency, Vocabulary, and Comprehension. *Virginia USA: ASCD*, 80.

## Appendix 1.

Mata Pelajaran : Bahasa Inggris

Kelas/Semester : XI

Waktu : 60 menit

Choose the correct answer from the option a, b, c, or d.

1. Many animals claim...and fight to keep other animals away.
  - A. land
  - B. stripe
  - C. territory
  - D. throughout
2. George want \$1000 for his old car, but I don't think it's...as much as that
  - A. price
  - B. valuable
  - C. value
  - D. worth
3. Having a fever means that your...is too high
  - A. hot
  - B. temper
  - C. temperature
  - D. temptetion
4. I love all fruit, but \_\_\_\_\_strawberries.
  - A. mostly
  - B. specially
  - C. Especially
  - D. Special
5. What time is it?  
It's 6.15 – a \_\_\_\_\_past six..
  - A. fifteen
  - B. quarter
  - C. half
  - D. fourth
6. harry started oainting twenty years ago, and now he's very....
  - A. considerable
  - B. succeeded
  - C. succes
  - D. succesful
7. Barbara's wedding was a big....
  - A. action
  - B. occasion
  - C. Exchange
  - D. Occasional
8. Argh! This noise is giving me a \_\_\_\_\_.
  - A. headouch
  - B. headpain
  - C. headhurt
  - D. headache
9. I \_\_\_\_\_swimming every Saturday morning
  - A. Go
  - B. To
  - C. Do
  - D. Play
10. If I were you, I'd leave earlier, so you can avoid the \_\_\_\_\_.
  - A. traffic time
  - B. peak hour
  - C. rush hour
  - D. peak time
11. helen cleaned the table until there wasn't a...of a dust on it.

- A. grain  
B. grand  
C. gray  
D. grew
12. You can't smoke here – please \_\_\_\_\_ your cigarette.  
A. put up with  
B. put out  
C. put down  
D. put away
13. It's the \_\_\_\_\_ building in the city.  
A. highest  
B. tallest  
C. fattest  
D. greatest
14. My aunt's rich. She owns a lot of ... in the middle of our town.  
A. properly  
B. preparation  
C. property  
D. prosperity
15. The gardener that works at my school ... the grass and plants a very beautiful flower every Friday.  
A. throws  
B. plants  
C. cuts  
D. goes
16. It's a good idea, but it's \_\_\_\_\_ that the boss will agree with you.  
A. unlikely  
B. likely  
C. unprobably  
D. improbably
17. Happy' is the \_\_\_\_\_ of 'sad'  
A. opposite  
B. opposed  
C. oppositive  
D. oppose
18. We nearly missed the plan we were only just \_\_\_\_\_.  
A. in time  
B. on time  
C. timely  
D. in time for
19. A lot of Chinese live in that ... of San Francisco  
A. distance  
B. distant  
C. distinct  
D. district
20. How should I go to Chicago? ..that ..on how fast you want to get there.  
a. Depends  
b. Defends  
c. Descends  
d. hangs

## Appendix 2

### LESSON PLAN (EXPERIMENTAL GROUP)

**Sekolah : SMA Negeri 3 Tanjung Balai**

**Mata pelajaran : Bahasa Inggris**

**Kelas : IX**

**Judul materi : Duolingo time!**

**Alokasi waktu : 40 menit**

**Tujuan Pembelajaran**

Setelah mengikuti proses pembelajaran, peserta didik di harapkan dapat :

Belajar vocabulary menggunakan aplikasi Bernama Duolingo

**Media pembelajaran, Alat/Bahan dan sumber Belajar :**

Media Pembelajaran : smartphone

Alat/Bahan : smartphone

Sumber belajar : Duolingo

**Kegiatan Pembelajaran Pendahuluan :**

- Guru mengucapkan salam dan berdoa.
- Guru memberikan motivasi dan apresiasi
- Guru menginformasikan tujuan pembelajaran

**Inti:**

- Guru mengajak siswa untuk melakukan Latihan menggunakan duolingo
- Guru mengajak siswa untuk melakukan interaksi antara sesama teman yang lainnnya.
- Dengan bimbingan dan pengarahan dari guru, siswa diminta untuk mampu menyelesaikan beberapa exercise yang ada di aplikasi duolingo.

**Penutup :**

- Guru beserta siswa membuat kesimpulan singkat tentang Latihan soal duolingo .
- Siswa memperhatikan informasi tentang rencana kegiatan pembelajaran untuk pertemuan berikutnya
- Guru mengakhiri pembelajaran dengan ucapan doa dan salam.

Mengetahui

Kepala SMA Negeri 3 Tanjung Balai

peneliti

Dra. Nahwati, MM.  
NIP 19650821 199303 2 001.

Widiyanthi Yulinar M.  
NPM 1902050118

Appendix 3

- C. headhurt
- D. headache
- 10. ~~A~~ swimming every Saturday morning.
  - ~~A~~ go
  - B. to
  - C. do
  - D. play
- 11. If I were you, I'd leave earlier, so you can avoid the \_\_\_\_\_.
  - ~~A~~ traffic time
  - B. peak hour
  - C. rush hour
  - D. peak time
- 11. Helen cleaned the table until there wasn't a...of dust on it.
  - A. grain
  - ~~B~~ grand
  - C. gray
  - D. grew
- 12. You can't smoke here - please \_\_\_\_\_ your cigarette.
  - A. put up with
  - B. put out
  - ~~C~~ put down
  - D. put away
- 13. It's the \_\_\_\_\_ building in the city.
  - ~~A~~ highest
  - B. tallest
  - C. fattest
  - D. greatest
- 14. My aunt's rich. She owns a lot of ...in the middle of our town.
  - A. properly
  - B. preparation
  - ~~C~~ property
  - D. prosperty
- 15. The gardener that works at my school ... the grass and plants a very beautiful flower every Friday.
  - A. throws
  - B. plants
  - ~~C~~ cuts
  - D. goes
- 16. It's a good idea, but it's \_\_\_\_\_ that the boss will agree with you.
  - A. unlikely
  - B. likely
  - ~~C~~ unpprobably
  - D. improbably
- 17. 'Happy' is the \_\_\_\_\_ of 'sad'.

- 70
- Mamma: Rami 15/10  
10/15 X 1-?
- 1. Choose the correct answer from the option a, b, c, or d.
    - 1. Many animals claim...and fight to keep other animals away.
      - A. land
      - B. stripe
      - ~~C~~ territory
      - D. throughout
    - 2. George want \$1000 for his old car, but I don't think it's...as much as that
      - ~~A~~ price
      - B. valuable
      - C. value
      - D. worth
    - 3. Having a fever means that your...is too high
      - A. hot
      - B. temper
      - ~~C~~ temperature
      - D. temptacion
    - 4. I love all fruit, but \_\_\_\_\_ strawberries.
      - A. mostly
      - B. specifically
      - ~~C~~ especially
      - D. specially
    - 5. What time is it?
      - It's 6.15 - a \_\_\_\_\_ past six.
        - A. fifteen
        - ~~B~~ quarter
        - C. half
        - D. fourth
    - 6. Harry started oaining twenty years ago, and now he's very....
      - A. considerable
      - B. succeeded
      - C. succes
      - ~~D~~ successful
    - 7. Barbara's wedding was a big....
      - A. action
      - B. occasion
      - C. exchange
      - ~~D~~ occasional
    - What size do you need: small, medium or \_\_\_\_\_?
      - A. large
      - B. huge
      - C. big
      - D. giant
    - 8. Arggh! This noise is giving me a \_\_\_\_\_.
      - A. headouch
      - ~~B~~ headpain

**Appendix 4 Questionnaire (Adapted from Pramesti & Susanti, 2020)**  
**Students' Questionnaire on Using Duolingo to Increase English**  
**Vocabulary Learning Motivation**

Part 1: Students' Characteristic

1. Gender a. Male b. Female
2. Experience in using Duolingo
  - a. I have used Duolingo before
  - b. I have never used Duolingo before

Part 2: Students' Perception of Duolingo and its features to increase their English learning motivation

Appendix 3 The Result of Questionnaire

Part 1: Students' characteristics

1. Gender

	frequency	Percent
Male	12	40
Female	18	60
Total	30	100

2. Experience in using Duolingo  
learning motivation

	Frequency	percent
I have used Duolingo Before	6	20
I have never used Duolingo before	24	80
Total	30	100

## Students' Semi-Structured Questions

1. What is your opinion about learning English by using mobile application?
2. Have you ever heard about Duolingo before?
3. What is your first impression when using Duolingo application?
4. What is your next impression after using Duolingo application?
5. Do you think Duolingo helps you to increase your motivation to learn English.
6. What are top three features in Duolingo that makes you feel motivated to learn English? Why?

### **Appendix 5 student's answer**

- Question: What do you think about learning English with using the mobile app?

Answer: Use the application to learn English more easily and practical because it can be taken anywhere.

- Question: Have you heard of Duolingo before?

Answer: I have heard about Duolingo before. I

Find out about this application yourself and use it for a long time to learn English.

- Question: What was your first impression when using the Duolingo app?

Answer: First impression I thought this app was fun and I kind of was easy to understand this application.

- Question: What is your next impression after using the application Duolingo?

• Answer: My next impression is that Duolingo is very good makes it easier and helps me in learning English because It's easy to use and more exciting than you initially imagined.

- Question: Do you think Duolingo helps you increase motivation to learn English?

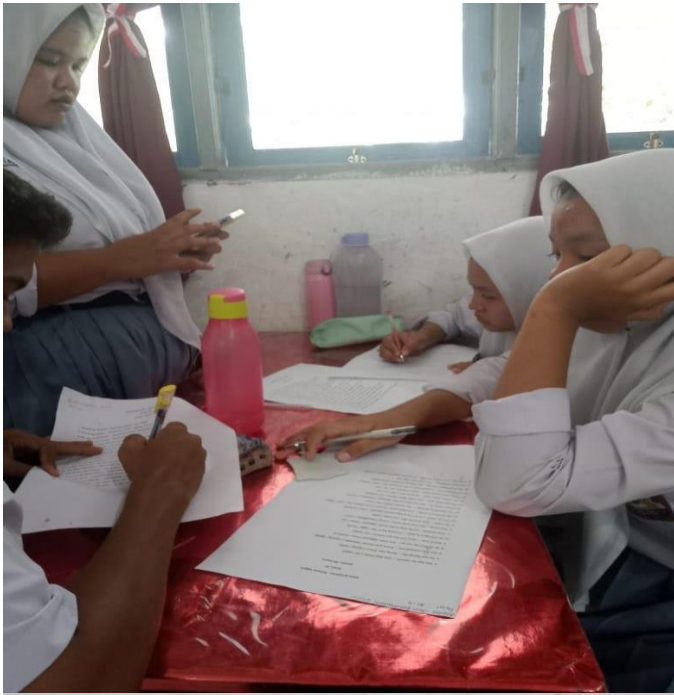


Answer: Upgrading because it's fun.

• Question: What are the top three features in Duolingo that make you feel motivated to learn English? Why?

Answer: I like all the features, but there are 3 features that are very interesting

and motivate me. First the Duolingo story. I like this because it's different with others, the story is really interesting and funny. That second feature challenges, because in those challenges we can see the missions we have to finish it. Lastly is XP, I can continue to increase my XP







## Appendix 3 Lampiran-lampiran





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> | mail : [fkip@umsu.ac.id](mailto:fkip@umsu.ac.id)

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

Perihal : **PERMOHONAN PERSETUJUAN JUDUL SKRIPSI**

Dengan hormat, yang bertanda tangan di bawah ini :

Nama : Widiyanthi Yulinar Manurung  
 NPM : 1902050118  
 Program Studi : Pendidikan Bahasa Inggris  
 IPK Kumulatif : 3,59

Persetujuan Ketua/Sek Prodi	Judul yang diajukan	
	The Effectiveness of Duolingo on Students' Motivation in Learning English	
	The Problems faced by Students in Microteaching	
	The Correlation between Students Speaking Anxiety and their Speaking Ability	

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

Medan, 25 Januari 2023

Hormat Pemohon,

Widiyanthi Yulinar Manurung

Dibuat Rangkap 3 :

- Untuk Dekan/Fakultas
- Untuk Ketua/Sekretaris Prodi
- Untuk Mahasiswa yang bersangkutan



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](mailto:fkip@umsu.ac.id)

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

Assalamu'alaikum Wr. Wb.

Dengan hormat, yang bertanda tangan di bawah ini :

Nama : Widiyanthi Yulinar Manurung  
 NPM : 1902050118  
 Program Studi : Pendidikan Bahasa Inggris

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

The Effectiveness of Duolingo on Students' Motivation in Learning English.

Sekaligus saya mengusulkan/menunjuk Bapak/Ibu sebagai :  
 Dosen Pembimbing : Yusriati, S.S.,M.Hum  
 Sebagai Dosen Pembimbing proposal/risalah/makalah/skripsi saya

  
 25 Januari 2023.

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

Medan, 25 Januari 2023  
 Hormat Pemohon,



Widiyanthi Yulinar Manurung

Dibuat Rangkap 3 :  
 - Untuk Dekan/Fakultas  
 - Untuk Ketua/Sekretaris Prodi  
 - Untuk Mahasiswa yang bersangkutan



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

UMSU Terakreditasi Unggul Berdasarkan Keputusan Badan Akreditasi Nasional Perguruan Tinggi No. 1913/SK/BAN-PT/Ak.KP/PT/XII/2022  
Pusat Administrasi: Jalan Mukhtar Basri No. 3 Medan 20238 Telp. (061) 6622400 - 66224567 Fax. (061) 6625474 - 6631003  
🌐 <https://fkip.umsu.ac.id> ✉ [fkip@umsu.ac.id](mailto:fkip@umsu.ac.id) 📱 [umsu.medan](#) 📺 [umsu.medan](#) 📺 [umsu.medan](#) 📺 [umsu.medan](#)

Bila mengunggah surat ini agar mencantumkan nomor dan tanggalnya

Nomor : 2975 /II.3/UMSU-02/F/2023  
Lamp : ---

Medan, 28 Muharram 1445 H  
15 Agustus 2023 M

Hal : Izin Riset

Kepada : Yth. Bapak/Ibu Kepala  
SMA N 3 Tanjung Balai  
Di  
Tempat.

Bismillahirrahmanirrahim  
Assalamu'alaikum Wr. Wb

Wa ba'du semoga kita semua sehat wal'afiat dalam melaksanakan tugas sehari-hari sehubungan dengan semester akhir bagi mahasiswa wajib melakukan penelitian/riset untuk penulisan Skripsi sebagai salah satu syarat penyelesaian Sarjana Pendidikan, maka kami mohon kepada Bapak/ibu memberikan izin kepada mahasiswa kami dalam melakukan penelitian /riset ditempat Bapak/ibu pimpin. Adapun data mahasiswa tersebut di bawah ini

Nama : **Widiyanthi Yulinar M**  
N P M : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Penelitian : **The Effectiveness of Duolingo App on Students' Motivation in Learning English.**

Demikian hal ini kami sampaikan, atas perhatian dan kesediaan serta kerjasama yang baik dari Bapak/ibu kami ucapkan banyak terima kasih, Akhirnya selamat sejahteralah kita semuanya. Amin.



**Dra. Hj. Samsuwarnita, MPd.**  
NIDN: 0004066701

**\*\*Penting!**







**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](mailto:fkip@umsu.ac.id)

#### BERITA ACARA SEMINAR PROPOSAL

Pada hari ini Kamis Tanggal 20 Bulan Juli Tahun 2023 diselenggarakan seminar prodi Pendidikan Bahasa Inggris menerangkan bahwa :

Nama Lengkap : Widiyanthi Yulinar M  
 N.P.M : 1902050118  
 Program Studi : Pendidikan Bahasa Inggris  
 Judul Proposal : The Effectiveness of Duolingo App on Students' Motivation in Learning English

No	Masukan dan Saran
Judul	
Bab I	- Mention clearly the main reasons of your background of study. - Mention clearly identification of Problems. - Mention your scope and limitation. - Revise the formulation of the Problems.
Bab II	- Add the explanation of "effectiveness" - Mention clearly the similarities and the differences your research with the previous related study. - Add the Advantages and Disadvantages of Duolingo App
Bab III	- Revise Population and sample. - Add of research Design of the research. - Add Instrument of the research.
Lainnya	- Pay attention of grammar and typing
Kesimpulan	[ ] Disetujui [ ] Ditolak [✓] Disetujui Dengan Adanya Perbaikan

Dosen Pembahas

(Rita Harisma, S.Pd., M.Hum.)

Dosen Pembimbing

(Yusriati S.S., M.Hum.)

Panitia Pelaksana

Ketua

(Pirman Ginting, S.Pd., M.Hum.)

Sekretaris

(Rita Harisma, S.Pd., M.Hum.)



**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.umhu.ac.id> E-mail: [fkip@umhu.ac.id](mailto:fkip@umhu.ac.id)



**BERITA ACARA BIMBINGAN PROPOSAL**

Perguruan Tinggi : Universitas Muhammadiyah Sumatera Utara  
 Fakultas : Keguruan dan Ilmu Pendidikan  
 Jurusan/Prog. Studi : Pendidikan Bahasa Inggris  
 Nama : Widiyanthi Yulinar Manurung  
 NPM : 1902050118  
 Program Studi : Pendidikan Bahasa Inggris  
 Judul Skripsi : The Effectiveness of Duolingo App on Students' Motivation in Learning English

Tanggal	Deskripsi Hasil Bimbingan Proposal	Tanda Tangan
25 Jan 2023	Acc Judul	
20 Juni 2023	Chapter I - Background of the Study - The formulation of the Problems - The objectives of the Study - significances of the Study.	
22 Juni 2023	Chapter II - Technique of Collecting Data - Technique of Analysis Data.	
26 Juni 2023	Chapter III - Reference	
5 Juli 2023	Acc for Seminar.	

Diketahui oleh:  
Ketua Prodi

(Pirman Ginting, S.Pd., M.Hum.)

Medan, 5 Juli 2023

Dosen Pembimbing

(Yusriati, S.S., M.Hum.)



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

UMSU Terakreditasi Unggul Berdasarkan Keputusan Badan Akreditasi Nasional Perguruan Tinggi No. 1913/SK/BAN-PT/Ak.KP/PT/XII/2022  
Pusat Administrasi: Jalan Mukhtar Basri No. 3 Medan 20238 Telp. (061) 6622400 - 66224567 Fax. (061) 6625474 - 6631003  
🌐 <https://fkip.umsu.ac.id> ✉ [fkip@umsu.ac.id](mailto:fkip@umsu.ac.id) 📱 [umsumedan](#) 📺 [umsumedan](#) 📺 [umsumedan](#) 📺 [umsumedan](#)

Bila mengunggah surat ini agar mencantumkan nomor dan tanggalnya

Nomor : 2975 /II.3/UMSU-02/F/2023  
Lamp : ---

Medan, 28 Muharram 1445 H  
15 Agustus 2023 M

H a l : Izin Riset

Kepada : Yth. Bapak/Ibu Kepala  
SMA N 3 Tanjung Balai  
Di  
Tempat.

Bismillahirrahmanirrahim  
Assalamu'alaikum Wr. Wb

Wa ba'du semoga kita semua sehat wal'afiat dalam melaksanakan tugas sehari-hari sehubungan dengan semester akhir bagi mahasiswa wajib melakukan penelitian/riset untuk penulisan Skripsi sebagai salah satu syarat penyelesaian Sarjana Pendidikan, maka kami mohon kepada Bapak/ibu memberikan izin kepada mahasiswa kami dalam melakukan penelitian /riset ditempat Bapak/ibu pimpin. Adapun data mahasiswa tersebut di bawah ini

Nama : **Widiyanthi Yulinar M**  
N P M : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Penelitian : **The Effectiveness of Duolingo App on Students' Motivation in Learning English.**

Demikian hal ini kami sampaikan, atas perhatian dan kesediaan serta kerjasama yang baik dari Bapak/ibu kami ucapkan banyak terima kasih, Akhirnya selamat sejahteralah kita semuanya. Amin.



**Dra. Hj. Samsuwarnita, MPd.**  
NIDN: 0004066701

**\*\*Penting!**





**PEMERINTAH PROVINSI SUMATERA UTARA  
DINAS PENDIDIKAN**

JL. SMAN 3 KEL. GADING KEC. DATUK BANDAR KOTA TANJUNGBALAI KODE POS 21362

**SMA NEGERI 3 KOTA TANJUNGBALAI**

NSS 301076402500/AKREDITASI A/NPSN 10212011/Web <http://www.smantitanjungbalai.com>

**SURAT KETERANGAN**

Nomor 421/ SMAN 3-TB/IX/2023

Yang bertanda tangan dibawah ini


Nama	Dra. NAHWATI, MM
NIP	19650821 199303 2 001
Jabatan	Kepala Sekolah
Unit Kerja	SMA Negeri 3 Tanjungbalai

Menerangkan bahwa

Nama	<b>Widiyanthi Yulinar Manurung</b>
NPM	<b>1902050118</b>
Program Studi	Pendidikan Bahasa Inggris
Judul Penelitian	<b>The Effectiveness of Duolingo app on students' motivation in learning English</b>

Adalah benar nama tersebut telah melaksanakan Penelitian/Riset dari Bulan Agustus s/d September 2023 di SMA Negeri 3 Tanjungbalai guna memenuhi salah satu persyaratan pembuatan Skripsi. Demikian Surat Keterangan ini diberikan untuk dapat dipergunakan seperlunya.

Tanjungbalai, 27 September 2023  
Kepala SMA Negeri 3 Tanjungbalai



Dra. NAHWATI, MM  
Kepala Sekolah  
NIP. 19650821 199303 2 001





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.umma.ac.id> E-mail: [fkip@umma.ac.id](mailto:fkip@umma.ac.id)



**BERITA ACARA BIMBINGAN SKRIPSI**

Perguruan Tinggi : Universitas Muhammadiyah Sumatera Utara  
Fakultas : Keguruan dan Ilmu Pendidikan  
Jurusan/Prog. Studi : Pendidikan Bahasa Inggris  
Nama Lengkap : Widiyanthi Yulinar Manurung  
NPM : 1902050118  
Program Studi : Pendidikan Bahasa Inggris  
Judul Skripsi : The Effectiveness of Duolingo App on Students' Motivation in Learning English

Tanggal	Deskripsi Hasil Bimbingan Skripsi	Tanda Tangan
5/10/2023	Revisi Chapter I: Background of the Study : Identification	
16/10/2023	Chapter II Theoretical Framework	
22/11/2023	Chapter III : Technique of collecting Data	
23/11/2023	Chapter III : Technique of Data Analysis	
24/11/2023	Chapter IV Data Analysis	
25/11/2023	see for the exam	

Medan, Januari 2024

Diketahui oleh:  
Ketua Prodi

Pirman Ginting S.Pd., M.Hum.

Dosen Pembimbing

Yusriati, S.S., M.Hum.

<b>Biodata</b>	
Nama Lengkap	Nurul Anjalni Syahroini, S.Pd
Tempat, Tanggal Lahir	Medan, 12 Desember 2001
Jenis Kelamin	Perempuan
Kewarganegaraan	Indonesia
Agama	Islam
Nama Ibu	Malayani
Nama Ayah	Suhaili
No. Hp	0895-3565-32828
Email	<a href="mailto:Nurulanjalni12@gmail.com">Nurulanjalni12@gmail.com</a>



### **Curriculum Vitae**

### **Background of Education**

<b>Year</b>	<b>Education</b>
-------------	------------------

SD (2007-2013)	SD PAB 10 SAMPALI
SMP (2013-2016)	SMP Negeri 6 Percut Sei Tuan
SMA/SMK (2016-2019)	SMK PRAYATNA 1 MEDAN
Universitas (2019-2024)	Universitas Muhammadiyah Sumatera Utara (UMSU) FKIP, Pendidikan Bahasa Inggris