

THE EFFECTIVENESS OF USING THE DUOLINGGO APPLICATION IN IMPROVING STUDENTS' MOTIVATION AND ENGLISH-SPEAKING SKILL AT UNIVERSITAS POTENSI UTAMA MEDAN

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ABSTRACT

This study aims to improve students' motivation and English-speaking skills by using the Duolingo application. The type of research applied in this study is a quasi-experimental method research type with a one group pre-test-post-test design approach, namely experimental research carried out on only one group, namely the experimental group without a comparison group or control group. The study was conducted on students of the English Study Program, Universitas Potensi Utama Medan, Semester I TA. 2024/2025, totaling 30 people. Based on the research results, it shows that the application Duolingo as a learning medium has been proven to be effective in improving students' English-speaking skills and increasing students' interest and motivation in participating in learning. It can be seen from the results of the percentage that has increased after the Duolingo application was implemented as a learning medium. In the pretest activity, the percentage of student completion scores only reached 30%, and student responses during the learning process were categorized as lacking, meaning that students seemed less motivated to participate in learning activities. While in the posttest activity there was a significant increase where there were 74% of students who experienced completion in learning to speak English and student responses during the learning process were categorized as good. This means that student interest and motivation in participating in learning have increased.

Keywords: Speaking Skills, English, Duolingo

ABSTRAK

Penelitian ini bertujuan untuk meningkatkan motivasi dan kemampuan berbicara bahasa Inggris mahasiswa dengan menggunakan aplikasi Duolingo. Jenis penelitian yang diterapkan dalam penelitian ini adalah jenis penelitian metode quasi eksperimen dengan pendekatan one group pre-test-post-test design, yaitu penelitian eksperimen yang dilakukan hanya terhadap satu kelompok saja, yaitu kelompok eksperimen tanpa adanya kelompok pembanding atau kelompok kontrol. Penelitian dilakukan terhadap mahasiswa Program Studi Bahasa Inggris Universitas Potensi Utama Medan Semester I TA. 2024/2025 yang berjumlah 30 mahasiswa. Berdasarkan hasil penelitian menunjukkan bahwa aplikasi Duolingo sebagai media pembelajaran terbukti efektif dalam meningkatkan kemampuan berbicara bahasa Inggris mahasiswa serta meningkatkan minat dan motivasi mahasiswa dalam mengikuti pembelajaran. Hal tersebut dapat dilihat dari hasil presentase yang mengalami peningkatan setelah aplikasi Duolingo diimplementasikan sebagai media pembelajaran. Pada kegiatan pretest presentase nilai ketuntasan mahasiswa hanya mencapai 30% dan respon mahasiswa selama proses pembelajaran terkategori kurang, artinya mahasiswa tampak kurang termotivasi dalam mengikuti kegiatan pembelajaran. Sedangkan pada kegiatan posttest terjadi peningkatan yang signifikan dimana terdapat 74% siswa yang mengalami tuntas dalam pembelajaran berbicara bahasa Inggris dan respon siswa selama proses pembelajaran terkategori baik. Hal ini berarti minat dan motivasi siswa dalam mengikuti pembelajaran

Kata Kunci: Keterampilan Berbicara, Bahasa Inggris, Aplikasi Duolingo

INTRODUCTION

The rapid development of technology today has played a significant role in various aspects of human life, including education (Herlina et al., 2021). So the ability to adapt quickly to technological advances in education and learning is a key factor that is very important to pay attention to (Arsyad, 2016).

Afzal (2019) argued that ability to adapt to progress technology and adopting it in the world of

education is not only a form of adjustment or as a form of transformation of conventional learning. Similarly, Jusman & Sarmila (2023) highlighted its role in creating an interactive and innovative education system. This can certainly improve the quality of learning as well as the quality of education (Herlina et al., 2021).

The use and utilization of educational technology can be applied in the form of learning media that can make it easier for educators to create

interesting material explanations and generate motivation and stimulation of learning activities that have a new psychological influence on students (Afzal, 2019; Arrosyad & Nugroho, 2021).

Currently, there are many types of technology-based platforms that can be chosen as learning media. However, these varied learning media will not be beneficial if they are not adjusted to the situation (Kurniasih & Sani, 2017). In general, there are several things that need to be considered when choosing a media that will be used, namely that the media that will be used must be in accordance with the characteristics of the students and also in accordance with the characteristics of the learning material that will be provided (Arsyad, 2016).

One of the materials that still experiences problems in learning activities at all levels of education in Indonesia, even at the tertiary level, is English language skills (Tambunsaribu & Galingging, 2021). It cannot be denied that English speaking skills are still a problem that students often experience. Most people think that English is difficult, which makes them reluctant to improve their English skills (Lena et al., 2023).

This fact is further emphasized by the data from the EF English Proficiency Index (EF EPI) 2023 report which shows that Indonesian people's English language skills are ranked 79th out of 113 countries. Meanwhile, in Asia, Indonesia is ranked 13th out of 23 countries (Kemdikbud, 2014).

Based on these data, it shows that Indonesia is still at a fairly low level in English proficiency both globally and in the Asian region. It should be understood that the dominance of English in almost all aspects of life makes English language skills a necessity and a must (Lena et al., 2023; Arrosyad & Nugroho, 2021). English language proficiency allows students to have wider access to information sources and be able to adapt to technological developments and contribute to global innovation (Kemdikbud, 2014).

It must be acknowledged that English lessons have different characteristics from other subjects. Given this, it requires an understanding of grammar and the rules contained therein, as well as mastery of vocabulary and proper pronunciation to express their ideas, thoughts, and experiences thoroughly

and effectively. This situation requires students to have skills in communicating using English (Jusman & Sarmila, 2023; Munday, 2016).

In general, the low ability of students in Indonesia to speak English is caused by the lack of mastery of standards in basic knowledge aspects, which include vocabulary and grammar, as well as academic literacy skills. Limitations in vocabulary mastery cause students to have difficulty in conveying ideas and intentions from statements related to certain goals. Constraints in grammar make students have difficulty in constructing sentences that they want to express, so they feel anxious about making mistakes (Solikhah, 2015; Muslimin & Julaikah, 2022).

Similar conditions are also felt by students of Universitas Potensi Utama in Medan. Based on the results of observations and interviews conducted by researchers on a number of students, it was revealed that many of them are still unable to communicate in English. This can be seen when lecturers invite them to interact using English, many of them are unable to respond and do not understand what is being conveyed. They still tend to often face challenges and fears when implementing it, feel embarrassed, feel insecure, have difficulty speaking, and various other things (Novaria et al., 2024; Purba & Saragih, 2022).

This problem clearly needs to be addressed immediately. In this context, students must be trained to be able and brave to express their thoughts and ideas effectively. This is important because this ability is also one of the indicators of their success in learning English (Hidayati & Diana, 2019; Hernadijaya, 2020).

Of course, there are various factors that cause this problem to occur, but it is most likely caused by several things, namely a learning situation that is too tense or monotonous, thus reducing interest and motivation in following lessons (Lena et al., 2023; Novaria et al., 2024). Apart from these factors, the selection and implementation of approaches and methods or learning media also contribute to the paradigm that students believe that speaking English is difficult (Sari et al., 2022; Hernadijaya, 2020).

In response to this, this study tries to find effective solutions to overcome problems in

teaching and learning speaking skills. Effectiveness is a condition to achieve planning goals. In the learning process, effectiveness cannot be separated from quality activities in planning, implementation, and evaluation carried out, including the media used (Juliana, 2018). Media Learning can be said to be effective if it has the ability to influence, change or be able to bring about results. When associated with learning outcomes, learning can be said to be effective if there are positive changes in students and increased learning outcomes (Redjeki & Muhajir, 2020; Tiara et al., 2021)

Thus, the main focus of this research is directed at efforts to develop a learning system that is able to attract interest, and is easy to understand, through the selection and utilization of appropriate learning media, and of course to help improve students' ability to speak English. One of them is by using technology-based learning media (Putri & Islamiati, 2018; Juliana et al., 2023).

The use and utilization of technology in English learning resources is an effort to maximize the learning process (Jusman & Sarmila, 2023). Moreover, currently there are many types of IT/ICT-based English learning media innovations (Sya et al., 2022), one of which is *Duolingo*. *Duolingo* emerged as a language learning platform solution with the main aim of opening the door to wider access to education (Sari et al., 2022; Simanjuntak et al., 2024).

Duolingo is an online language platform based on the web and also mobile online which can be used as a learning medium that provides benefits in learning, especially in language learning, one of which is English (Purba & Saragih, 2022). The use of *Duolingo* media is an alternative that can be used in learning to speak English (Herlina et al., 2021).

Given that vocabulary is one of the crucial aspects in learning English, an effective method or way is needed to master it quickly (Agustian & Salsabila, 2021). By utilizing the *Duolingo* application for learning, students can more easily expand their English vocabulary (Hidayati & Diana, 2019).

Based on this description, this research focuses on "The Effectiveness of Using the *Duolingo* Application in Improving Motivation and

English-Speaking Skills of Students at Universitas Potensi Utama Medan" (Hernadijaya, 2020).

English plays a significant role in life, including in education (Simanjuntak et al., 2024). Therefore, English learning has been given to students from elementary school to college level. In this way, it is expected that students can master English, which will later help them in developing the science and technology being studied, and applying it after completing education in Indonesia (Tambunsaribu & Galingging, 2021).

A person's English language skills can be seen from four skills, namely writing, reading, speaking and listening. Of the four skills, the most important thing to know is that someone's English language ability is predominantly determined by their speaking ability (Sari et al., 2022). Speaking ability is very important in the communication process, because by having good speaking skills, the communication activities carried out will run well (Arikunto, 2010).

With the ability to speak, a person can convey various kinds of information (facts, events, ideas, ideas, responses, and so on), can express will and desires, and express various feelings (Novaria et al., 2024). Therefore, a person must have good speaking skills so that his ideas, thoughts or opinions can be communicated well to others (Matra, 2020).

Thus, it can be concluded that the ability to communicate in English refers to a person's ability to convey intent, including ideas, thoughts, and feelings to others verbally (Redjeki & Muhajir, 2020; Muddin, 2018). This aims to ensure that the message delivered can be well understood by the recipient (Purba & Saragih, 2022).

Duolingo application is one of the famous platforms for learning foreign languages. *Duolingo* was created by Luis Von Ahn and Severin Hacker in November 2011 (Utari et al., 2019). *Duolingo* application is software available on computers or smartphones, which can be used to convert data into useful information to support various activities, including in the education sector (Hidayati & Diana, 2019).

Application is software that can be used for educational purposes (Hernadijaya, 2020). The *Duolingo* application has a foreign language learning system designed to be fun to learn various

languages with a play concept, which can be accessed for free via the website or installed on Android (Tiara et al., 2021). The Duolingo application can be an ideal alternative as a learning tool and solution for learning languages, it can be used as an alternative to increase independence while increasing vocabulary and training students' listening skills in speaking English (Mujiarni & Widiastuty, 2024).

Duolingo has various learning techniques and *up-to-date materials*, so that anyone who uses it gets the latest knowledge (Hidayati & Diana, 2019). This Duolingo application also not only provides features for learning English skills such as *listening* or *reading* but also other learning features such as *vocabulary* and grammar learning (Redjeki & Muhajir, 2020). This application works with a very easy method and is very useful for users who are learning English and some other languages. This application gives users to determine themselves how they want to practice it right from the beginning (Muddin, 2018). Based on some of the opinions above, it can be concluded that the Duolingo application is software found on computers and Android that is used for foreign language learners online. This application is designed simply for language learners, especially foreign languages (Mujiarni & Widiastuty, 2024).

The practice in learning activities using Duolingo in class, namely: 1) Students are asked to create a Duolingo account via their respective Androids with the directions given (Muddin, 2018). Students can download the Duolingo application via the Play Store. 2) Next, after creating an account, students can choose Indonesian to English or vice versa English to Indonesian 3) Then, students can choose the "Basic 1" level to work on which will be adjusted to the material. 4) Students have the opportunity to monitor their progress in each lesson by answering between 10 and 20 questions aimed at expanding vocabulary. These questions cover aspects of speaking skills, translating, understanding oral information, and vocabulary mastery (Agustian & Salsabila, 2021).

RESEARCH METHODOLOGY

The type of research used in this study is a quasi-experimental research method with a pre-test

and post-test design approach for one group. This is an experimental research conducted on only one group, namely the experimental group, without a comparison or control group (Arikunto, 2010). In this study, a quasi-experimental method with a one-group pre-test and post-test design was applied to improve students' English-speaking skills by utilizing the Duolingo application as a learning tool (Creswell et al., 2007; Creswell & Poth, 2007).

This research was conducted at the Universitas Potensi Utama located on Jalan KL. Yos Sudarso No. 3 A, Tanjung Mulia Village, Medan Deli District, Medan City. The subjects of this study were 30 students of the English Study Program at Universitas Potensi Utama Medan Semester I, Academic Year 2024/2025. Meanwhile, the Duolingo application was the object of this study, which was used as a learning medium to improve students' English-speaking skills.

The data used is qualitative data, in the form of primary data and secondary data. Primary data is obtained directly through observation results and interview sessions. Secondary information is obtained through documentation, which comes from related institutions or organizations, as additional information. The following instruments are used to measure students' English-speaking skills, including:

1. Test

The test instrument is used to assess students' English-speaking ability, which is measured using a Likert scale. Here are some indicators to consider:

Table 1. Likert Scale

Criteria	Scale	Predicate
Very good	5	Completed
Good	4	Completed
Enough	3	Enough and Incomplete
Not enough	2	Lacking and Incomplete
Very less	1	Very Lacking and Incomplete

The instrument grid used for assessment can be seen below:

Table 2. Assessment Instrument Grid

Assessment Variables	Indicator	Scale				
		5	4	3	2	1
Linguistic Factors	1. Clarity of pronunciation					
	2. Accuracy of intonation					
	3. Accuracy of language rules					
	4. Conformity of discourse sequence					
Non-linguistic factors	1. Accuracy of information					
	2. Compliance information					
	3. Smoothness					
	4. Pronunciation style, attitude, appearance, facial expressions					

The value obtained from each indicator above will be calculated based on the total respondent's answers by utilizing percentage correction using the formula:

$$\text{Student Grade} = \frac{\text{Score Acquisition}}{\text{Maximum Score Amount}} \times 100$$

To assess students' level of achievement in English speaking skills through the Duolingo application, the following assessment formula is used:

Table 3. English Speaking Ability Scoring Guidelines for Students

No	Category	Value Range
1	Very good	85 – 100
2	Good	75 – 84
3	Enough	60 – 74
4	Not enough	50 – 59
5	Very less	0 - 49

2. Observation Sheet

This observation sheet aims to assess the extent of student participation in English learning activities by utilizing the Duolingo application. Based on the observation sheet guidelines listed below:

Table 4. Observation Sheet Grid

No	Category	Indicator
1	Reception	<ol style="list-style-type: none"> 1. Students take the learning process seriously. 2. Students actively ask questions when they experience problems. 3. Students pay attention to the lecturer's explanation. 4. Students listen and take notes on the explanation given by the lecturer.
2	Response	<ol style="list-style-type: none"> 1. Students read the worksheet well 2. Students carry out the orders given by the lecturer 3. Students are able to answer questions given by the lecturer. 4. Students express their opinions.

3. Documentation

The documentation in this study is in the form of student learning outcomes from the previous semester, which is used by the researcher as a reference to compare learning outcomes before and after implementing the Duolingo application as a learning tool.

In this study, the data analysis method applied is data reduction. This is a process of selecting data obtained in the field, where the data is simplified and transformed into a narrative form that is easier to understand.

The indicators used to assess the success of students' English-speaking skills learning through the Duolingo application include the provision that the minimum score that students must achieve is 75, and the average score that must be achieved by all students is 70%.

RESEARCH RESULTS AND DISCUSSION

Description of Pretest Results

The results of the English-speaking ability of Medan's Potential Main University students before the implementation of the treatment can be seen in the following table:

Table 5. Pretest Activity Results

Mark	Amount	%	Category	Information
85 – 100	3	10	Very good	Completed
75 – 84	6	20	Good	Completed
60 – 74	7	23	Enough	Not finished
50 – 59	8	27	Not enough	Not finished
0 - 49	6	20	Very less	Not finished
Amount	30	100		

(Source: Pre-test research results, 2024)

Based on the table above, it shows that out of 30 students, only 3 students (10%) are in the Very Good category. 6 students (20%) have the ability to speak English in the good category. While only 7 students (23%) are in the sufficient category. Meanwhile, in the lacking category, there were 8 students (27%), and 6 students (20%) were in the very lacking category. These results also show that only 30% of students have successfully learned to speak English.

Meanwhile, if we look at the students' learning responses in this learning, it can be seen in the following table:

Table 6. Results of Observations of Student Learning Activities in Pretest Activities

Aspects observed	Scale				
	5	4	3	2	1
1. Students take the learning seriously			√		
2. Students actively ask questions when they experience problems				√	
3. Students listen to the explanation given by the lecturer			√		
4. Students take notes on the explanation given by the lecturer			√		
5. Students read the worksheet well				√	
6. Students carry out the orders given by the lecturer			√		
7. Students are able to answer questions given by lecturers				√	
8. Students express their opinions				√	
Amount	0	0	1	8	0
Total Score	20				
Mark	50				

Based on the results of observations of student learning responses in learning activities, the average value is $\frac{20}{40} \times 100 = 50$. Thus, it can be stated that student response activities during the learning

process are classified as lacking. Students appear less motivated to participate in learning activities.

Based on the results of the pretest that has been conducted, it is considered important to make improvements and increase students' English-speaking skills by utilizing the Duolingo application as a learning tool.

In this activity, the implementation of the use of the Duolingo application was carried out to improve students' English-speaking skills. Based on the results of the Posttest action activities, the results obtained by the students in the learning can be seen as follows:

Table 7. English Speaking Ability Results Data of Posttest Students

Mark	Amount	%	Category	Information
85 – 100	8	27	Very good	Completed
75 – 84	14	47	Good	Completed
60 – 74	4	13	Enough	Not finished
50 – 59	2	7	Not enough	Not finished
0 - 49	2	7	Very less	Not finished
Amount	30	100		

(Source: Posttest research results, 2024)

Based on the data above, it shows a significant increase in the ability to speak English in students. Of the 30 students, there are 8 people (27%) who are in the very good category, 14 people (47%) are in the good category. While those in the sufficient category are 4 people (13%). While those in the less category are 2 people (7%), as well as in the very less category, there are also 2 people (7%). These results also show that only 74% of students have experienced completeness in learning to speak English.

Meanwhile, if we look at the students' learning responses in participating in the learning in posttest, this can be seen in the following table:

Table 8. Results of Observations of Student Learning Activities in Posttest Activities

Aspects observed	Scale				
	5	4	3	2	1
1. Students take the learning seriously	√				
2. Students actively ask questions when they experience problems	√				

Aspects observed	Scale				
	5	4	3	2	1
3. Students listen to the explanation given by the lecturer		√			
4. Students take notes on the explanation given by the lecturer			√		
5. Students read the worksheet well		√			
6. Students carry out the orders given by the lecturer		√			
7. Students are able to answer questions given by lecturers		√			
8. Students express their opinions		√			
Amount	10	20	30	0	0
Total Score	33				
Mark	82.5				

Based on the results of observations of student learning responses in the Posttest learning activity, the average value obtained was $\frac{33}{40} \times 100 = 82.5$. Thus, it can be stated that the student's response during the English language learning process using the *Duolingo application* is included in the good category. This means that students' interest and motivation in participating in learning have increased.

The results of the posttest activity showed an increase in students' English-speaking ability and also an increase in students' interest and motivation to learn which experienced an optimal increase. Thus, it can be stated that the teaching and learning process using the *Duolingo application* has proven to be effective and can be used as an appropriate learning medium to improve students' speaking skills in English, where students have achieved completion.

Discussion

Based on the results of the pretest and posttest activities, a comparison of the results obtained by students regarding their ability to speak English before and after implementing the *Duolingo application* can be obtained. learning media. As can be seen in the following table:

Table 9. Recapitulation of Ability Results Student English Speaking

No	Action	Category	Amount	Percentage
1	Pretest	Completed	9	30%
		Not Completed	21	70%
2	Posttest	Completed	22	74%
		Not Completed	8	26%

(Source: Research results, 2024)

Based on the data from the table, it can be seen that the percentage of students' score completion results during the pretest and posttest activities has increased. In the pretest activity, the percentage of students' score completion was only 30%. while during the posttest there was a significant increase to 74%. If we compare the students' speaking skills at the initial condition (pretest) and after the *Duolingo application* was implemented, there was an increase of 44%. Thus, this research was declared successful and it can be stated that the use of the *Duolingo application* as a learning medium has proven to be effective in improving students' English-speaking skills.

CONCLUSION AND SUGGESTION

Conclusion

Based on the research results, the following conclusions can be drawn:

1. Based on the results of the actions taken, it can be concluded that the use of the *Duolingo application* as a learning medium has proven to be effective in improving students' English-speaking skills, as can be seen from the results of the percentage increase.
2. *Duolingo application* as a learning medium in English speaking skills learning activities is also effective in increasing students' interest and motivation in participating in learning, as can be seen from the results of the observation assessment of student responses which have increased.

Suggestion

It is important to understand that learning English is not just about gaining knowledge that requires deep thinking skills, memorizing formulas, understanding tenses, grammar, and formal English structures, and various other aspects. However,

learning English is a skill that needs to be done continuously until it becomes a habit. This is due to the fact that every language learned requires speaking practice in that language. Thus, commitment and consistency in practice are key factors in developing language skills, including English.

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