

**The Effect of Duolingo
Application in Improving
Students' English Skills:
A Research of Grade X Students
at SMKN 3 Baubau**

Fitriani

Sekolah Tinggi Ilmu Kesehatan (STIKES) IST Buton, Indonesia

Gia Puspita Mokodompit

Institut Kesehatan dan Teknologi Graha Medika, Indonesia

Abstract

This study investigated the impact of Duolingo application on English language proficiency among Grade XI students at SMKN 3 Baubau, Southeast Sulawesi. The integration of technology in English language learning presents new opportunities for Indonesian vocational schools, yet research on mobile learning application effectiveness in this specific context remains limited. This qualitative research at SMKN 3 Baubau, Southeast Sulawesi, used Duolingo as a learning medium, showing positive impacts on students' English skills (speaking, writing, reading, listening). Data from observations, tests, and interviews revealed that Duolingo increased motivation, vocabulary, grammar comprehension, text understanding, and pronunciation. Its interactive, gamified features reduced monotony and boosted enthusiasm, aligning with research highlighting the benefits of technology and gamification in language learning. Duolingo proves effective for enjoyable and efficient English learning.

Keywords

Blended Learning, Duolingo Application, English Skills

Corresponding author:

Fitriani, Sekolah Tinggi Ilmu Kesehatan (STIKES) IST Buton, Buton, Indonesia

Email: fitrianioffice@gmail.com

INTRODUCTION

Globalization and technological advancements represent contemporary educational challenges, exemplified by the blended learning model, which integrates diverse instructional delivery strategies. This model combines face-to-face interactions, computer-based offline learning, and online platforms (including internet and mobile learning), enabling synchronous or asynchronous engagement between facilitators and Students without specific constraints. As line with (p. 905), they exchange and use information with minimum participation human in devices vary such as size, computation power, energy capacity, and storage capability therefore model BL (Blended Learning) could be added in class to create and improve a smart learning environment (Siripongdee et al., 2020).

In the era of globalization, English, as the international language, plays a pivotal role in fostering communication and interaction among individuals from diverse nations. It serves as a medium of exchange in various domains, including education, business, governance, and social contexts. In Indonesia, English holds a significant position within the educational system and is a mandatory subject across various levels, particularly in senior high schools.

The integration of technology, particularly internet-based media, offers considerable opportunities to empower students by enhancing their creativity, fostering independence, broadening access to diverse learning resources, and supporting the development of their English skills. Blended learning emerges as a dynamic approach to mastering English, significantly improving students' language acquisition processes. This method, which seamlessly combines online and offline modalities, is highly effective in enhancing Students' skills in a time- and space-efficient manner. By enabling students to engage with educational activities both inside and outside the classroom, blended learning not only facilitates the acquisition of new competencies but also ensures a more flexible and efficient learning experience.

In Baubau of Southeast Sulawesi, all senior high schools, including SMKN 3 Baubau, are mandated to integrate technology into the teaching and learning process. This initiative aims to enhance the effectiveness and efficiency of interactions between teachers and students. By employing a blended learning model in English instruction, students gain access to internet-based resources, enabling a more contextualized and practical understanding of the language. The use of the internet as an extensive and boundless resource demonstrates effective strategies for learning English, thereby facilitating the teaching and learning process for both educators and Students.

This is consistent with the research of learning. (Ashraf et al., 2021) which argues that student participation in the learning process using digital media is limited in blended. It is difficult for students to connect with teachers regarding technical learning materials, The limitation is that it is difficult for students to interact with teachers regarding technical learning materials, as it leads to student dissatisfaction in achieving the material skills. Therefore, the limitation is that it is difficult for the students to interact with the teacher regarding.

Moreover, there are some expert researches, such as that of (Wang & Zhang, 2022), their research demonstrates that blended learning models, the combination of online and offline learning models optimized from priority factors via instructional forms such as the SPOC model, have a positive effect on the establishment and improvement of independent learning behavior and the efficacy of self-learning. Second, (Inal & Korkmaz, 2019) state that blended learning via the DynED platform contributed significantly to student achievement compared to traditional approaches, but did not significantly contribute to student attitudes about English learning. Thirdly, according to (Bralić & Divjak, 2018), the blended learning paradigm based on MOOC (Massive Open Online Courses) is a website-based course designed for unrestricted participation and open access.

Based on the explanations provided by the three experts, the blended learning model incorporating online courses positively effects students' achievement in learning English. However, the online course method does not significantly influence students' attitudes toward practicing English, nor does it substantially enhance their enthusiasm for engaging with the material. In contrast, the Duolingo application offers several additional advantages, including boosting learning motivation, expanding vocabulary, improving speaking skills, strengthening listening comprehension, facilitating word translation between English and Indonesian, enabling the exchange of information regarding learning challenges, and providing opportunities for direct practice with other users. These benefits have motivated researchers to investigate the effect of the Duolingo application on improving students' English skills at SMKN 3 Baubau.

LITERATURE REVIEW

The use of the Duolingo application as a medium for English language learning has garnered significant attention in various studies due to its potential to enhance students' language skills. Duolingo is a technology-based learning application that offers an interactive and gamified approach to mastering English. According to (Muchtar, 2021), the language can have a positive effect on the acquisition of English language skills, including reading, writing, listening, and speaking. Research by (Ersoy, 2021) reveals that active Duolingo users who engage for 34 hours achieve language learning outcomes equivalent to one semester of college-level instruction. In the context of vocational education, such as at SMKN 3 Baubau, Duolingo holds the potential to increase students' interest in learning English due to its flexibility and engaging interface. This aligns with the findings of (Anton Adi Purwanto & Syafryadin, 2023), who noted that Duolingo usage enhances students' motivation in learning English, particularly in vocabulary acquisition and grammar comprehension. Furthermore, the application enables students to learn independently beyond classroom hours, thereby supporting continuous learning. However, several studies also highlight challenges, such as reliance on internet access and limited direct teacher involvement, which may affect learning effectiveness. Therefore, integrating Duolingo into the curriculum must be accompanied by teacher guidance to ensure optimal learning outcomes.

Moreover, the use of Duolingo is particularly relevant to the needs of students at SMKN 3 Baubau, a vocational school where English skills is a critical skill for supporting their career prospects. As a vocational institution, SMKN 3 Baubau focuses on developing vocational competencies aligned with industry demands. Research by (Mahfuddin et al., 2023) indicate that technology-based applications, such as Duolingo, can assist vocational school students in understanding technical terms related to their areas of expertise while simultaneously expanding their communication skills in an international context. Additionally, Duolingo's adaptive approach, which adjusts the difficulty level based on users' abilities, allows students to learn at their own pace and according to their individual needs.

However, it is crucial to consider how this application is integrated into formal learning processes. Research by (Vitor et al., 2024.) emphasize that Duolingo's effectiveness is enhanced when used as a complement to conventional teaching methods, such as classroom discussions, hands-on practice, and conversation simulations. In this regard, teachers play a strategic role in aligning Duolingo's use with learning objectives. Furthermore, factors such as the availability of technological infrastructure, students' digital literacy levels, and parental support significantly influence the successful implementation of this application in schools.

On the other hand, studies on the use of Duolingo in areas with limited technological access, such as certain regions in Indonesia, including Baubau, reveal specific challenges. (Farida et al., 2024) highlight that the lack of stable internet access and supporting devices is a major obstacle to maximizing the use of technology-based applications. Hence, a hybrid approach that combines digital and conventional learning methods could serve as an effective solution. Thus, research on the effect of the Duolingo application at SMKN 3 Baubau not only contributes to the development of English language learning methods but also provides insights into how technology can be utilized to enhance the quality of education in vocational schools, particularly in resource-constrained areas.

RESEARCH METHOD

This research employs a qualitative descriptive design. In this research approach, the researcher gathers, classifies, analyzes, and draws conclusions based on the data analysis without aiming for generalization. According to (Creswell, 2003), qualitative research is a method used to explore and understand the meanings that individuals or groups attribute to a social or human issue. This approach seeks to uncover the underlying reasons and mechanisms behind the occurrence of a social phenomenon.

This research was conducted at SMKN 3 Baubau, located on Jalan Sijawangkat. The school is equipped with facilities that support the teaching and learning process. It has a large number of classrooms, each medium-sized and suitable for accommodating 30 students. Each classroom is equipped with a front wall and a whiteboard. Additionally, the school provides internet access for all participants to facilitate learning activities. To collect data, the researcher employed several instruments, including observation

guidelines, English tests and interview guidelines. The observation guidelines were used to gather information about the teaching and learning process by observing all aspects of classroom activities. English tests to know the students' effect of English skills when they use Duolingo Application with duration of 30 minutes. The interview guidelines supported the researcher in collecting and analyzing descriptive data related to English test results through students' interviews.

The data were analyzed qualitatively, starting with the compilation of collected materials such as observation field notes, English test and interview transcripts. The data were then coded, interpreted, and further developed. Finally, the findings were reported, which involved discussing the research questions, describing the research context, outlining and interpreting the findings, and providing feedback. This report served as an evaluation and conclusion of the research, determining whether the students' English skills give the effect from Duolingo Application as a result of the intervention.

FINDINGS AND DISCUSSION

1. Students are motivated to learn and have a better understanding of the subject.

From collected research data, it is found that, based on the students' insight, the traits of efficacious EFL teachers are presented in the following table. Pay attention to how to include a table.

Data 1

Informant 1

"I am pleasant to use the application because it increases my vocabularies, I can learn about the use of Personal Pronoun correctly, how to write better, listening comprehension, pronunciation and learning reading comprehension is also fun."

From the results of the informant 1's interview above, she explained that using the Duolingo application is very fun and also helps increasing her vocabulary and adding insight into her understanding easily about how to use personal pronouns correctly, provides information on how to write with the right grammar, how to comprehend the listening section, how to speak with the correct pronunciation and the application improves her reading comprehension. Therefore, it can be concluded that this application is very useful for informant 1 because it has helped her in providing an understanding of English lessons.

Data 2

Informant 11

"Yes, it helps. on the listening skill the audio can be speeded up or slowed down about what the native speaker said. on the speaking skill I can be guided on how to pronounce correctly, and also on the reading skill I can learn new vocabularies moreover my writing skill is also increasing".

In data 2, it is explained that informant 11 through the use of the Duolingo application has an effect on all her skills because the application is giving her an advantage such as the features which can help her to improve her English language based

on the skill, she wants to learn which makes her get more better understanding about English lessons.

Data 3

Informant 14

“My reading skill is increasing because I used to see the text and writing I think it helps me when using the application because the application provides English and Indonesian version. therefore, when I get the English material or questions, I can remember the previous vocabularies that I already memorized before which makes me easier to make the sentences. “

From the data above it is explained that the effect of the use of the Duolingo application from informant 14 is that her ability on reading and writing skills is increasing. This is because the application provides questions according to the skills, he wants to learn such as reading which provides questions to read passage. Therefore, her reading skills such as skimming and scanning is also increasing about to understand the messages from the text. Furthermore, in writing skill questions is given two versions of vocabularies, they are English to Indonesian and Indonesian to English. This made informants 14 able to know how to write based on the grammar correctly and adding to her memorization of new vocabularies that later in doing English tasks or English questions can understand the material or questions better in English. Thus, it can be concluded that the use of this application helps in understanding English material and skills.

2. Get the same turn in practicing the material.

Data 4

Informant 4

“Before using the Duolingo application I used dictionaries and Google Translate I also read English texts a lot there I started to be good at learning English although sometimes the pronunciation is still wrong but after using the Duolingo application. When I click on the word, the pronunciation appears”.

The informant data above explains that after downloading the Duolingo application, Informant 4 uses the application to develop his speaking skills. This shows that through the use of the application, Informant 4 is given the opportunity to train his English Skill.

Data 5

Informant 14

"If the ability is only a little bit, maybe it is because of the use of the Duolingo application that the English language has improved".

Based on the results of the interview, when informant 18 is asked about his English Skill on the post-test results, which increased compared to the previous pre-test, he admits that his English Skill is low and after using the Duolingo application his English Skill increases because he is given the opportunity to learn by downloading the application to develop or improve his listening, speaking, reading and writing skills.

Data 6

Informant 18

"The Duolingo app helps with all kinds of skills"

From the results of the interview informant 18 said that he used the Duolingo application and through this application it was very helpful in learning English and his English Skill also increased such as exercises in speaking how to practice correct pronunciation and writing informant 18 could immediately learn to translate correctly into English or English to Indonesian. This shows that the Duolingo application provides opportunities for anyone who wants to learn English easily because it has provided service features according to the skills needed by each student.

3. Reduce learning boredom

Data 7

Informant 16

"The Duolingo application, because it has a game and can also speak and has animations".

From data 7 informant 16 above when asked which media is most suitable for learning English, he answered the Duolingo application because the application has features that have games that allow users to learn while playing and what informant 16 likes is the availability of pronunciation games where users have to answer the questions given correctly. If the pronunciation is correct then he can move on to the next level, if it is wrong informant 16 has to continue to practice his speaking until it is correct. This makes informant 16 not feel bored quickly because learning feels like playing a game plus the moving animation feature that supports the user's mood. So, it can be explained that the use of the application helps to reduce the boredom of learning English, which was previously considered complicated, so that students want to return to learning English without boredom.

Data 8

Informant 5

"It is easy to understand and not boring, because we can learn while we play".

From the above data, it can be explained that informant 5 feels happy using the Duolingo application because he has used several learning applications before but the material or instructions provided are not really understood and the features are boring, in contrast to the application, the application can help him learn without feeling bored because the material in the application provides instructions that are easy to understand when working on questions. So, it can be concluded that informant 5 is looking for a learning tool that is suitable for learning English but not boring, so the Duolingo application is recommended for those who want to learn English because it provides the features that are needed for those who want to learn English and is not boring.

Data 9

Informant 13

"Yes, very satisfied and happy"

Based on data 9 informant 13 said that he was very happy to use the media because after downloading and using the Duolingo application he felt that it was very suitable for the application as a medium for learning English that was not boring because the Duolingo application informant 13 easily understood the instructions for the questions given and was also full of animation and was given the opportunity to revise but with the concept of learning while playing informant 13 did not feel bored to learn.

4. Facilitated remembering and practicing daily material and enthusiasm in teaching and learning activities

Data 10

Informant 21

"Speaking and writing, because when we speak, we are trained to speak correctly. Writing, because we can be told to translate into correct English or vice versa from English into Indonesian".

From data 10 above it can be seen that informant 21 likes and chooses the Duolingo application because it is very helpful in terms of practice in developing English Skill. With the features that have now been provided, informant 21 uses the application to train himself in English Skill, namely speaking and writing.

Data 11

Informant 28

"I have improved, but not as much as my reading skills"

Based on data 11, informant 28 explained in the interview that he improved his English Skill through the Duolingo application and from the interview informant 28 also explained that he used the features of the application which resulted in developing all his English Skill, but importantly according to him specifically his reading comprehension skills increased because he often read texts and worked on problems that he found challenging, especially with the help of friends to work together to solve problems in case there were things that they did not understand. It can therefore be concluded that the Duolingo application not only helps to develop knowledge, in particular to improve English Skill, but also invites users to look for ideas to solve problems.

Data 12

Informant 30

"I only use the Duolingo application because it is a faster way for us to learn English, especially in terms of speaking".

From the data 12 Informant 30 explained after an interview that after diligently using the Duolingo application, the results of his practice and consistency made his English Skill improve in the area of speaking. According to him, the application makes it easier for him to learn because learning English through the application is intertwined between questions about one skill and another. For example, the listening section teaches listening skills, and indirectly, if the interview knows the writing and pronunciation of the reading correctly, it also trains him in speaking. In conclusion, the Duolingo application helps to improve Informant 30's English Skill because he can learn and practice the questions directly.

The results of the research analysis above are in accordance with the research of (Kayimbaşioğlu et al., 2016). Language teaching by integrating ICT in the context of gamification can significantly improve language acquisition skills and the concept of peace. It can be explained that using ICT can increase motivation in the learning process. In line with (Dehghanzadeh et al., 2021) explain digital gamification is a fun method that supports learning English as a second language and increases equality between students in educational practices.

(Huynh et al., 2016), in their research, states that the Duolingo Application is a serious learning course platform while playing to increase Student motivation and engagement so that it feels more like entertainment and more relaxed. In their research, (Al Ayub Ahmed et al., 2022) add that students who use the Duolingo application have better vocabulary and grammar development. The Duolingo application is very helpful for users to better understand English lessons, for example, in learning vocabulary from quiz quizzes that are done and can develop writing creativity according to good and correct writing rules.

CONCLUSION

Duolingo application has an effect on the skills because the application is giving an advantage such as the features which can make everyone to improve their English language based on the skill they want to learn. The application can teach the user about how to use personal pronouns correctly, provides information on how to write with the right grammar, how to comprehend the listening section, how to speak with the correct pronunciation and the application can help for who want to improve the reading comprehension that after that the user can get more better understanding about English lessons.

Furthermore, the Duolingo application has game features that allow users to learn while playing. The user must answer the given question correctly. If it is correct, the user can proceed to the next level if they continue to practice answering until it is accurate. This makes users not feel bored quickly because learning feels like playing a game coupled with a moving animation feature that supports the user's mood. So that the application helps reduce the boredom of learning English, which was previously considered complicated, so users want to return to learning English without boredom. Another reason is that the application can help learn without feeling bored because the material in the application provides instructions that are easy to understand when working on problems. Therefore, the Duolingo application is an appropriate learning aid for those who want to learn English but are not bored. Hence, Duolingo application is recommended for those who want to learn English because it provides the features needed for those who want to learn English and is not boring.

Moreover, Duolingo app helps to develop knowledge, especially to improve English Skill and invites users to look for ideas for solving problems. When working on difficult problems, we can rely on the help of friends to work together to solve problems if things are not understood. Another thing is that the application makes learning easier because

learning English through the application is interrelated between one ability and another. For example, the listening section teaches listening skills, and indirectly, if the user knows the writing and pronunciation of the reading correctly, it also trains him in speaking. So, the Duolingo application helps improve English Skill. So, this application is recommended for anyone to learn and practice questions directly.

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