

**User Perceptions and Experiences : A Study on Duolingo's Role as an  
Interactive Learning Media**

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**ABSTRACT**

The effects of Duolingo as an interactive language learning platform on language acquisition and user engagement is examined in this study. Online language learning programs like Duolingo are becoming more popular, therefore instructors and learners must evaluate their usefulness. This study evaluates Duolingo's language-learning efficacy. The study examines its effects on learning results, user engagement, and learning experience. This mixed-approaches study uses quantitative and qualitative methods to get insights. In contrast, qualitative interview data are thematically evaluated to better understand user experiences and attitudes. This study uses quantitative and qualitative methods to evaluate Duolingo's language learning platform. This SMAIM Samarinda study shows that Duolingo improves pupils' English. Duolingo lets students learn new vocabulary and speak English despite device limits. Learning and mastering difficult concepts is easy with the app's user-friendly features. Most participants were motivated, found the app useful and interesting, and used it occasionally daily. This suggests that Duolingo improves English and makes learning easier in addition to motivating participants.

**Keywords :** Duolingo, Interactive Learning Media, Perceptions.

**INTRODUCTION**

In today's world many people especially students, are used to using smartphones, such as Android devices. The use of mobile devices has become common across various age groups due to their affordability and widespread availability (Newhouse, Willians, & Pearson 2006). According to Alfaki & alharti (2014), information and communication technology (ICT), like smartphones and the internet, is recommended for learning, and those who use them are often referred to as digital learners. Various studies have shown that students view Duolingo positively as a learning tool. For example, a study in the Journal of English Language and Education found that students responded well to Duolingo's fun and interactive features, making learning enjoyable and maintaining student motivation (Octaviani & Arumsari, 2022)

Being passionate about the impact of technology on education, I am enthusiastic about exploring user perceptions and experiences with Duolingo as an interactive language learning platform. I am eager to delve into why people choose to use Duolingo and what aspects of the platform appeal to them, aiming to uncover the motivations that drive their engagement. Additionally, I am keen on understanding how cultural backgrounds influence users' interactions and experiences with the platform, as language learning is deeply intertwined with cultural understanding. Through my research, I aspire to contribute valuable insights that not only enhance the effectiveness of interactive learning media like Duolingo but also facilitate more meaningful and engaging language learning experiences for individuals worldwide.

In the context of digital education, Duolingo offers a new way to understand how technology can assist the language learning process (Ajisoko, 2020; Dehganzadeh, & Dehganzadeh, 2020). Their studies attempted to measure the extent to which Duolingo meets user expectations amid efforts to increase learning accessibility and flexibility. Duolingo's uniqueness lies not only in its innovative approach but also in its interactive nature that distinguishes it from traditional learning methods. Through an examination of users' interactions with this interactive aspect, the researcher can pinpoint the crucial elements and offer additional understanding of the motivation and facilitation of language learning.

Duolingo has gained recognition for its distinctive approach to user perception and experience. Through gamified lessons and interactive exercises, the platform strives to transform language acquisition into an enjoyable and effective journey. According to research by Vesselinov and Grego (2012), Duolingo's incorporation of gamification elements significantly contributes to a positive user experience, enhancing motivation and engagement in language learning. As users navigate this immersive learning environment, Duolingo's innovative design aims to make the process of acquiring a new language both accessible and rewarding. Examining user perceptions and experiences with Duolingo is vital for enhancing the platform's design, functionality, and effectiveness in language acquisition. The findings contribute valuable insights to discussions on technology-assisted language learning, supporting educators, developers, and policymakers in refining strategies and integrating impactful tools into language learning curricula. The current study seeks to reveal the perspectives of users by exploring how they perceive the effectiveness of Duolingo in language learning, articulating their opinions on the usability and interface design, and investigating the interconnected impact of these factors on their overall learning experience, these insights are crucial for guiding improvements and refinements that can optimize Duolingo role as an interactive learning media, which ensures its alignment with user needs, enhances engagement, and maximizes its efficacy in facilitating language acquisition across diverse user demographics.

Based on the reasoning stated in the preceding context, the researcher desires to know :

1. How do students perceive the effectiveness of Duolingo in facilitating language learning, and what factors contribute to their perceptions?
2. How do students describe the usability and interface design of Duolingo?
3. To what extent do the above factors impact students' overall learning experience?

The significance of examining students recognitions and suitability of Duolingo as an intelligently learning media is urgent for a few reasons. Firstly, understanding how learners lock in with the stage highlights its ease of use, openness, and general viability in encouraging dialect procurement. This knowledge is vital for teachers, application designers and developers, and policymakers looking for to optimize instructive innovation for differing learning needs. Besides, by assessing students judgements, the researcher will be able recognize ranges of change and development inside Duolingo, in this manner improving its utility as a dialect learning instrument. Furthermore, such investigation contributes to the broader talk on intuitively learning techniques, advertising important bits

of knowledge into the part of innovation in forming instructive encounters. Eventually, through an in-depth examination of students' experiences and outcomes, this investigation has the capacity to foster advancements in language education and educational technology, which benefits learners worldwide.

## **METHODOLOGY**

This study employed a mixed methods approach to comprehensively explore user perceptions and experiences with Duolingo as an interactive language learning platform. The quantitative phase involved administering surveys to a large sample of Duolingo users, allowing for the collection of numerical data regarding usage patterns, satisfaction levels, and learning outcomes. Concurrently, the qualitative phase entailed conducting in-depth interviews with a subset of participants to gain deeper insights into their motivations, preferences, and cultural influences shaping their experiences with Duolingo. By combining quantitative analysis with qualitative exploration, this mixed methods approach aimed to provide a holistic understanding of the multifaceted dynamics involved in user engagement with Duolingo. The research was guided by the theoretical framework of Technology Acceptance Model (TAM) to examine users' perceived usefulness and ease of use in relation to their actual usage behavior. Additionally, cultural dimensions were explored through the lens of Cultural-Historical Activity Theory (CHAT), allowing for a nuanced analysis of how socio-cultural factors impacted language learning experiences. This methodological triangulation enhanced the validity and reliability of the findings, ultimately contributing to a more comprehensive understanding of Duolingo's role as an interactive learning medium.

In this study, the researcher started by noting that Duolingo had already been integrated into the curriculum at SMA Istiqamah Muhammadiyah, based on earlier research. This prior integration had been facilitated by colleague researchers who had incorporated Duolingo into the classroom setting. Using findings from these previous studies, the researcher aimed to identify gaps and limitations to produce relevant research on the effectiveness of Duolingo's integration. The study aimed to address how Duolingo's integration into regular classrooms impacted English language learning and identified areas for improvement in its use. Using a case study approach, researchers explored Duolingo's implementation and its effects, guided by predefined research questions. Data were collected through a mix of qualitative and quantitative methods, including interviews for in-depth insights and questionnaires for structured, measurable data on participant engagement, attitudes, and opinions. The data gathered from the questionnaire were qualitatively analyzed using descriptive statistics. This method involved organizing and summarizing the data to provide a clear and comprehensible interpretation of various aspects of the research.

Once the interview data had been gathered, it underwent analysis using a thematic approach. This qualitative research method was employed to identify, comprehend, and present themes or patterns within the data.

The researcher employed interviews as an approach of complementing document analysis in order to gather data pertaining to the initial research problem and to determine the obstacles encountered by students when utilizing OpenLearning as an approach for

learning in hybrid classes. In this research, the researcher used semi-structured interviews conducted via Zoom Meeting and WhatsApp Voice Note. The interviews consisted of open-ended questions adapted from the works of Makumane (2021) and Horvat et al. (2015) focusing on students' perception in using LMS as LMS and the obstacles using LMS as Learning Media. The researcher set up a number of questions to obtain information from the participant. The interview was conducted in a casual, zoom meeting between the interviewer and participant. The tool used during the interview procedure is the interview guide.

The process of transforming data into information is known as data analysis. The goal of this process is to make the characteristics of the data simpler to understand and to be of use in locating solutions to problems that are typically associated with research. Alternately, one way to define data analysis is as an activity carried out with the goal of transforming the information gained through research into knowledge that may then be used in order to come to a conclusion.

According to Miles and Huberman, cited in Mezmir (2020), the process of assessing qualitative data consists of the following three steps:

a. Data Reduction

A qualitatively captured research effort almost certainly creates more data than its final report. Yet, engaging in a data reduction procedure is extremely beneficial for editing, summarizing, and presenting the data.

b. Data Coding

According to Saldaña (2013), coding is not the entirety of data analysis; rather, it is a strategy to organize the data so that the researcher can recognize the underlying signals portrayed by the data.

c. Data Display

Data display, in the sense of Huberman and Miles (1994), generally entails making use of textual representations of your data to choose out parts that best show your concepts of interest.

d. Conclusions

At this final stage of analysis, you draw conclusions about how your data represents your topic. This requires "getting meaning from visible data," as Huberman and Miles (1994) put it. The word "drawing" should be understood literally; depending on the kind of analysis employed, one "draws" the desired interpretation, organization, or processes from the data.

**FINDINGS AND DISCUSSION**

**Findings**

**Students' perception on the effectiveness of Duolingo in facilitating language learning, and what factors contribute to their perceptions**

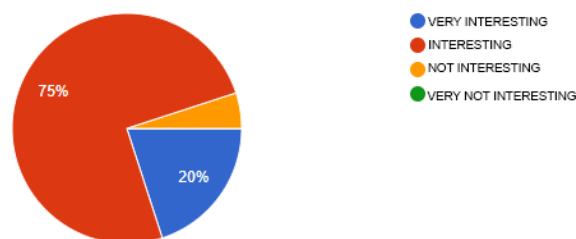
NO	ITEM	SDA		DA		SA		A	
		N	%	N	%	N	%	N	%
1	I use Duolingo almost everyday	11	27,5%	2	5%	17	42,5%	10	25%
2	Duolingo is very helpful to improve my English Language skills	0	0%	3	7,5%	9	22,5%	28	70%
3	Duolingo is very effective helps me improve my English Language learning	0	0%	2	5%	6	15%	32	80%
4	I feel very motivated when learning using Duolingo	0	0%	2	5%	0	0%	38	95%
5	I enjoy learning using Duolingo	0	0%	2	5%	8	20%	30	75%

Researchers identify the levels of motivation, effectiveness, and use of the Duolingo application in boosting respondents' English proficiency. Out of 40 participants, 95% of them reported that they were very motivated to learn using Duolingo and that the application was very effective in helping them improve their English language proficiency. In addition, between 70% and 75% of respondents said they were happy and helpful during the Duolingo learning process. The use of the daily application is also indicated by 25% of respondents who stated that they regularly use Duolingo every day. The results indicate that Duolingo not only provides motivation but also makes a significant contribution to improving English language proficiency and learning enjoyment for its users.

**The usability and interface design of Duolingo from the students' perspectives**

How do you describes the interface design of Duolingo

40 jawaban



From the results of the questionnaire that has been given, 75% of the respondents expressed interest in the Duolingo application, one of which is supported by the statement of one of the respondents "this Duolingo application has given us a lot of convenience from listening, like where he gives sentences" (Ferdy May 17, 2024). And also, one respondent

said Duolingo is seen as providing more complete and rich material than textbooks. From this it can be proven that Duolingo provides a lot of convenience and provides a lot of material than in textbooks.

### **Pronunciation and Listening**

Respondents stated that pronunciation and listening were the most interesting and effective elements of the Duolingo app. Nafsan, one of the respondents, showed particular interest in the pronunciation exercises, which he found very interesting. He stated, "what I find most interesting is the pronunciation... there are pronunciation exercises in there." This emphasizes that features that support pronunciation exercises directly help students in honing their speaking skills, which is a crucial part of language learning.

### **Ease of Use**

Positive feedbacks were received during the Duolingo user interview, as seen by the response from the first respondent, "nothing, because everything is easy to understand". This was then refuted by other respondents who stated that Duolingo can provide many advantages, particularly, in the areas of listening and math computation. This indicates that the use of Duolingo by students is very simple, which makes it easier for students to introduce themselves to an application to enhance their learning.

### **Confidence**

One significant thing that Duolingo affects is one's level of self-trust. One respondent stated, "after using Duolingo, I realized how much I had changed because there were so many new materials". Other respondent also mentioned that he was getting better at speaking English, which helped her communicate with others. Surrounded by the statement "a little bit than a little bit is English Language Proficiency. This demonstrates that using Duolingo has a significant negative impact on their self-confidence because they are unable to speak English naturally and are now actively using it for communication.

### **Improved Communication Skills**

Additional positive outcomes from using Duolingo include Nafsan's assessment that the application makes it very easy to communicate in English, saying that it "makes it easier for me to understand what is being said". Conversely, Ferdi reports slightly better ability to converse and hold conversations in English with the subjects, saying things like "I'm pretty sure I can hold conversations with them in English". The usage of Duolingo significantly reduces their communication style and diminishes their ability to communicate using English in their daily lives.

## **3.2 Discussion**

Duolingo holds significant importance as an interactive teaching medium that effectively enhances students' English language proficiency. This application also successfully integrates interactive and engaging features, user-friendly interface, and appropriate learning materials to generate positive learning outcomes. Positive user

perceptions of Duolingo may limit the potential of this application in providing flexible and effective language learning solutions. All of this highlights the importance of innovation and technology in language education and illustrates how applications like Duolingo can improve students' learning outcomes in a comprehensive way. The role of Duolingo as an interactive learning medium has received substantial scholarly attention, particularly within language education. User perception and experiences are pivotal in assessing its efficacy.

Ghasemi and Kouhdsah (2024) assert that Duolingo's gamified features, such as XP points and leaderboards, effectively enhance language learning enjoyment and motivation. These elements encourage consistent engagement and create a dynamic learning environment that appeals to users. Based on research on the use of the Duolingo application in improving English language proficiency at university levels, several important factors have been identified. Duolingo had a positive contribution to the development of students learning English language proficiency, particularly in the areas of self-awareness, perseverance, and motivation. However, to reach a higher threshold for proficiency, Duolingo users must combine it with other teaching methods and engage in quiet conversations to master more complex communication skills.

Based on the questionnaire results, almost 75% of respondents expressed satisfied with the Duolingo application. Among them, some expressed belief that the platform offers easier access and more comprehensive material than traditional print books. Utilizing a speaking and listening feature is the most effective way to help users improve their ability to communicate in English. Nafsan, the last respondent, regarded the use of the speaking training in this application as the most interesting and helpful aspect of improving one's ability to converse. Research conducted by Kamsik et al. (2023) highlights the importance of maximizing benefits, including limitations Duolingo in the context of language learning. Even though there are many that highlight the interactive features, a few respondents also expressed their satisfactions with the application, which may negatively impact their ability to communicate in English with others. This is because it is necessary to highlight the features and structure that the application provides. Integrating this application with more comprehensive and varied instruction is expected to increase its effectiveness in developing comprehensive language learning across various contexts, including everyday life and academic contexts.

When using the Duolingo app to improve English language proficiency among students, various aspects are identified through test results. The majority of respondents expressed satisfied with this application, citing the ease of use and greater material content offered by Duolingo in comparison to traditional textbooks. The use of technology is supposed to facilitate the learning process, particularly in the areas of listening and speaking lessons, which are considered the most effective and interesting by the users. The study conducted by Apoko, Dunggio, and Chong (2023) shown that Duolingo can improve the English language proficiency of Indonesian students through practical exercises that do not require a lot of practice or study time. Notwithstanding the study's limitations in terms of sample size and geographic focus, this underscores the importance of crafting the study context in order to comprehend user perceptions and experiences with Duolingo. When

using this application in various things considered, Duolingo has made a positive contribution to improving the proficiency of native English speakers. In order to achieve more comprehensive language proficiency, users of this application must be equipped with both hands-on and silent learning methods.

Kastelli and Takács (2023) on gamification-based learning methods on Duolingo indicates that this approach can increase user motivation and involvement, especially in language learning contexts. Their research indicates that game elements, such as teaching effective lesson plans and modifying students' behavior, can enhance their interest in learning. However, the differences in sample size and geographic focus between Sweden and other countries make careful consideration necessary when extrapolating these results to other educational and cultural contexts. The qualitative results of this study also support this assertion, with 75% of respondents expressing satisfied with the Duolingo application. This reduces the ease of use and quantity of material provided by the aforementioned application.

The respondent stated that Duolingo provides practical experience in the learning process, particularly in the areas of observation and discussion, which are considered the most effective and efficient. The ability to bend and twist is a primary feature that helps users increase their ability to communicate and understand one another. Furthermore, the ease of use of the application is achieved in a straightforward manner, with intuitive and sensitive user interfaces that make it simple for a variety of users to access. This makes it easier for users to adjust to applications and facilitates effective and quick learning. Additionally, one area that has shown significant improvement is self-awareness, where users report feeling more confident in their ability to communicate in English after using Duolingo, even though some quiet practice is still necessary to reach the desired level of proficiency. Finally, user communication failures also occur, even though the results indicate that further interaction and instruction are needed. Despite this, Duolingo succeeds in providing a strong foundation for improving communication and comprehension skills in English. In general, even though studies by Kastelli and Takács (2023) as well as user survey results show that Duolingo is effective in improving language proficiency through game-like aspects and user-friendliness, further research is necessary to fully understand this application in a wider range of contexts.

Study by Novitasari and Purnamaningsih (2022) highlighted the allure of Duolingo because of its gamified and interactive learning methodology, which raises student motivation and engagement above that of conventional approaches. This is consistent with my own study, which found that 75% of participants were very interested in using Duolingo. Participants praised its ease of use and extensive information, arguing that it provides more thorough resources than textbooks. The student's experience with these elements highlights how helpful it is for tasks like listening exercises and pronunciation drills. Though Duolingo makes learning easier and boosts confidence at first, questions have been raised concerning its possible limitations when it comes to improving communication and natural language abilities.

A paradoxical effect on self-confidence was observed by some respondents, who felt that their ability to communicate in English honestly was hampered by their dependence on

Duolingo's planned activities. The discussion in Novitasari and Purnamaningsih (2022) study, which supports a balanced approach mixing Duolingo with other teaching tools, is in line with this nuanced input. This kind of instruction would lessen these problems and offer a more comprehensive language learning experience. It would also be in line with the larger discussion about maximizing educational outcomes by maximizing digital technologies in conjunction with traditional pedagogical methods. Thus, in order to improve language proficiency, both studies highlight the significance of utilizing technology such as Duolingo within an all-encompassing teaching framework.

Buriyanti (2020) study shows that students have a positive view of Duolingo because it is an accessible and entertaining method for practicing English speaking skills. Duolingo's gamification features, interactive exercises, and self-paced learning style encourage instant feedback and consistent practice. However, students in this current study noted several shortcomings of the app, particularly in terms of its inability to provide comprehensive, personalized feedback and limitations in facilitating more advanced conversational skills. Duolingo's speaking exercises, which often focus on single words, are inadequate to prepare students for conversations in private situations. Buriyanti (2020) findings are in line with data showing that 27.5% of students strongly disagree with the daily use of Duolingo, because the mobility of using gadgets in their environment is very limited, especially for those in Islamic boarding schools. This situation underlines that Duolingo, although useful for basic speaking practice, needs to be complemented by more interactive and real speaking opportunities to truly improve overall speaking skills. In her research, Buriyanti (2020) emphasized the importance of a balanced approach between digital resources and conventional methods in language learning to improve speaking skills better.

The study by Kamsik et al. (2023) highlights the significant appreciation for Duolingo's contribution to raising English proficiency among university students. According to this study, the interactive and gamified methods used by Duolingo help students improve their language skills and read comprehension, making them useful tools for the learning process. The results of the questionnaire in this study also indicate that 75% of respondents satisfied with the Duolingo application, with some of them citing ease of use and the amount of material available as reasons to avoid traditional print books. However, despite the fact that this application is successful in creating basic knowledge such as handwriting and comprehension, the teachers also discuss critically the Duolingo approach, which is thought to be very important in understanding the advanced English language requirements that arise in university contexts. Primarily, criticism focuses on the level of detail in written language, academic writing, and critical thinking skills, which frequently fall short of the complex and contextual standards required in high school education. According to the study's findings, even though Duolingo has a positive impact on improving students' English language proficiency, its use must be coordinated with more comprehensive and flexible teaching methods in order to meet the needs of university students. Combining digital technologies like Duolingo with more traditional, more hands-on learning methods is expected to provide a more effective learning environment that will increase students' proficiency in English at a higher level of education.

## CONCLUSION

Positive side effects of using Duolingo include improved English communication skills. This indicates that while Duolingo is beneficial for learning English, adapting to language users in everyday situations remains a challenge that needs to be carefully considered. Personalized language feedback is crucial for helping Duolingo users develop more advanced communication skills. Even though this application is effective at providing a language learning structure, there is still some difficulty in handling the complexity of the factual information. With a more holistic approach, integrative teaching methods can help alleviate this problem by ensuring that students can communicate with each other in a variety of daily life contexts and are not limited to only memorizing facts. Researchers conduct a longitudinal study so they can obtain more accurate data and more valid the data. Also, further researchers can see change in student behavior and the improvement of student's English skill when they use it. To enhance user experience, Duolingo should focus on improving speech recognition capabilities, providing clear interactive text, employing effective visualization techniques, personalizing speech recognition features, and offering opportunities for deeper comprehension. Implementing these strategies will make it easier for user to understand and improve their language proficiency more effectively

Teachers can improve their proficiency in learning the language by encouraging students to use Duolingo in their daily language learning. Initially, they could use Duolingo as a study tool to reinforce the material taught in class. The teacher can assign tasks or practice lessons using Duolingo that align with the student's skill level and curriculum. Furthermore, teachers can incorporate the use of Duolingo into silent practice sessions, such as English language conversation classes or tutoring sessions. Thirdly, they can inspire students by participating in their Duolingo journey and providing positive reinforcement and support to help them reach their learning objectives. Through creatively utilizing Duolingo in daily language instruction, teachers can assist students in developing their language skills in an interactive and engaging way.

There are a few guidelines for students who struggle with using technology so they can get the most out of using Duolingo. Initially, students can use this application to prioritize available time while spending it at home or in school. Second, utilizing Duolingo's offline mode feature can help reduce reliance on internet connections and minimize data usage. Finally, setting up a routine timetable for using Duolingo and adhering to notification policies might help them stay consistent in their learning. Finally, consult with the teacher or fellow students to obtain strategies to maximize the effective learning outcomes from Duolingo.

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