



# Turkish EFL Learners' Opinions on Duolingo vs AI-based Application EWA: An Example in Foreign Language Education

Seda Nur Aydın<sup>a\*</sup>

<sup>a</sup>Independent Researcher, Türkiye; <https://orcid.org/0009-0006-0457-5815>

Suggested citation: Aydın S. (2024), Turkish EFL Learners' Opinions on Duolingo vs AI-based Application EWA: An Example in Foreign Language Education. *Language Education & Technology (LET Journal)*, 4(1), 79-97.

## Article Info

Date submitted: 29/06/2024

Date accepted: 29/07/2024

Date published: 30/07/2024

Research Article

## Abstract

The educational implications of using applications to improve students' success in language acquisition are worth investigating. The AI-powered application EWA has gained popularity in the field of second language acquisition. As a result, this study looked into the varying perspectives on Duolingo and the AI-based program EWA as English language learning tools. 12 EFL students with equivalent English proficiency levels (A2) took part in the study. They were required to read brief texts, do exercises, and play games on Duolingo and EWA before expressing their impressions in one-minute papers. The study compared AI-based and non-AI-based applications, as well as the efficacy of EWA for this purpose, in an effort to investigate students' impressions related to learning English as a foreign language. The results show that, overall, they had a pleasant experience, and that they learned a lot from battling against others as well as against themselves. Students preferred EWA, a user-friendly program that is readily available on portable devices, gives quick feedback, and may be considered a practical instrument for fostering an atmosphere that can inspire and involve learners in their learning context.

**Keywords:** Turkish learners, Language education, AI in EFL, Post-modern perspectives, Pedagogical comparison, ELT, Language learning platforms, Duolingo, EWA, Artificial Intelligence

## 1. Introduction

How did mankind manage to separate between the modern and the post-modern? Is there a distinct time point for this differentiation? Among scientists, philosophers, and cultural theorists, the alteration from modernity to postmodernity is a difficult and complicated issue (Featherstone, 1983). Postmodernity is more of a progressive shift in intellectual, cultural, and social insights throughout eras rather than a definite moment in time or occasion. Nevertheless, the majority of scholars are in the rapport with that the mid-1900s reflected a turning pinpoint in the advancement of postmodernity, because of some new perspectives, such as the appearance of existentialism, poststructuralism and other philosophic movements. Since the 2000s, mainly recognized as the early 21st century, with the advance of globalization, the internet and digital media, cultural degradation and hybridism have gained importance. Technological improvements in diverse areas have impressed how people work, live, and correspond in

\*Seda Nur Aydın. Independent Researcher, Türkiye.  
e-mail address: [sedanuraydin2716@gmail.com](mailto:sedanuraydin2716@gmail.com)

this age. Examples of these advancements involve the progress of mobile technologies, the Internet, digital entertainment, and Web 2.0.

From a modern perspective, technological development has opened new ways for the international public. Because of the pandemic caused by coronavirus (COVID-19) in 2019 compelled schools as well as companies to shift to learning and remote work along with the embracement of social distancing policies and quarantine to cease the spread of the virus (Ergin & Dogan, 2022). Contemporary video conference applications like *Google Meet*, *Zoom*, and *Microsoft Teams* were vital sources for remote teaching, learning and meetings (Klimova, 2021). Therefore, the pandemic has brought in essential differences in digital accessibility and technical providence among diversified communities, as well as underlying the role that technology plays in facilitatory unity perseverance, and creativity in the face of unexpected problems.

After the Pandemic era, the world has met with Artificial Intelligence (AI) and ChatGPT at the end of 2022. As technology progresses, ChatGPT and its creators are stances to play a vital role in human-computer communication, presenting personalized assistance and virtual fellowship. Different versions of ChatGPT have emerged and have been used in various fields one of which is education. Even though AI programs are a relatively new phenomenon, there have been quite various considerations on this matter. Artificial intelligence is regarded by educators and school officials as opening Pandora's box and endangering pupils' ability to write and think critically (Huang & Li, 2023). However, from other perspectives, with the use of AI, students can have spoken conversations that are identical to those with a native speaker. Similar applications could increase students' knowledge of phonology and pronunciation in Foreign Language (FL), an area that is frequently neglected in FL instruction (Hong, 2023).

When we look at the issue from another perspective in the ever-developing scene of language education, the combination of technology has yielded many innovative types of equipment and platforms aspiring to improve the language learning adventure. This change towards digital source materials has not only caused to revolt against traditional pedagogical methods but has also deployed a discourse on the impressiveness and convenience of such technologies in various linguistic cases. This study researches the insights of Turkish English as a Foreign Language (EFL) learners concerning two popular language learning applications: Duolingo and an AI-based application known as EWA. Against the background of a post-modern world featured by abrupt technological advancements, this paper pursues to light the way for the subtle choices and ideas of Turkish learners, discovering their experiences with these digital language acquisition tools.

By delving into the comparative strengths and weaknesses of Duolingo and EWA from the line of vision of Turkish EFL learners, this study intends to contribute worthwhile views to the ongoing debate surrounding the combination of technology in foreign language education. Duolingo is one of the most dominant and influential mobile language learning applications (apps) on the market today (Duolingo Help Center, 2020). Its popularity among millions of users has been determined, at least in part, by its free-of-charge access model and gamified features. It has different types of quizzes and modes for the users. EWA, a semi-free AI-based mobile application created to provide educational support through a real-time avatar, incentive rewards and interactive games or challenging tasks, has been becoming a popular language acquisition tool recently. One of its advantages is to increase students' motivation in learning the language with an avatar and interactivity via battles, and game mode in the classroom.

To sum up, this paper seeks to give information on pedagogical implementations by determining the factors that impact learners' apprehensions and preferences towards different language learning applications. Through this review, we aim not only to provide an explanation of the important preferences

of Turkish students learning English as a foreign language but also to draw broader implications for utilizing digital language acquisition resources in a globalized and digitally integrated world. In contemporary language education, comprehending the dynamic interactions between learners and technology is crucial for enhancing effective and engaging language learning experiences. By examining these multifaceted relationships, educators and researchers can develop strategies that contribute to successful language acquisition and create more effective, personalized, and stimulating educational environments.

## Research Questions

1. What are the perceptions of EFL learners about using Duolingo and the AI-based application EWA to learn English?

## 2. Literature Review

### 2.1. Mobile Assisted Language Learning (MALL)

One significant aspect that has drawn a lot of attention recently is the incorporation of technology in instructional and educational settings. As a result, one of the most often used features of language learning is mobile learning. Due in large part to the advancement of technology, mobile devices have begun to be used in education more and more (Ekinici & Ekinici, 2017). This has led to the development of mobile-assisted language learning, an alternative teaching approach. A particular field of mobile learning that is becoming increasingly crucial is mobile-assisted language learning (MALL). According to Wu et al. (2012), mobile learning is a kind of learning activity that is transmitted through portable devices and does not need the learner to be restricted to a specific geographic place.

The concepts of technological mobility; learning mobility, and learner mobility are the three key domains in which El-Hussein and Cronje (2010) describe mobility. Technology mobility is related to the devices that students use. With the help of these gadgets, students can learn at any time or place—a condition that is highly compatible with the post-modern view. Considering the adaptability of learning, this kind of continuation, as an alternative to traditional methods, may increase learners' motivation and enthusiasm. New forms of educational delivery—personalized, learner-centred, contextual, collaborative, omnipresent, and lifelong learning—are also brought about by the mobility of learning. In the end, mobile learners can readily engage with one another for their own goals and interests and free themselves from the confines of space and time. According to several studies (Kondo et al., 2012, Golonka, Richardson & Freynik, 2014, Chen & Chen, 2011; Toland, Mills, & Kohyama, 2016), MALL improves student-to-student and teacher-student interactions, speaking, and listening skills. The impact of mobile devices on the English language learning activities of college students was examined by Li and Zou (2015), and the findings indicate that a significant majority of students held favourable opinions on mobile learning, with most participants utilizing their mobile devices for a variety of learning activities. Previous studies corroborate this trend, revealing that mobile phones are more frequently employed for educational purposes compared to other Mobile-Assisted Language Learning (MALL) devices.

### 2.2. Integration of Mobile Devices and Applications into Language Learning

The utilization of mobile technology is growing quickly, opening up new learning situations and offering a variety of resources, such as interactive applications, that are appropriate for autonomous language acquisition (Pachler et al., 2010). Consequently, educators have started utilizing a variety of mobile gadgets, including smartboards, tablets, and more. However, cell phones are the most

often used mobile device for language learning, especially preferred by students. (Shortt et. Al, 2023)

. Due to their ease of use and accessibility, mobile phones are a great tool for language learners to use to enhance their language proficiency. Mobile phones have several advantages for both students and teachers. In accordance with this, Liu et al. (2003) assert that bringing together mobile phones with mobile internet connections and networks may benefit educators and learners by decreasing the amount of time spent on laborious tasks, encouraging student participation in the learning process, allowing teachers to monitor student progress, promoting collaborative learning through group activities, and seamlessly implementing technology-based learning activities (p. 371). With COVID-19, the use of mobile connections reached its highest level. Students in the Pandemic era used such platforms as Zoom, Microsoft Teams, and Skype. Recently, ChatGPT, the most modern and, arguably, most inventive language learning resource, has shown the potential of artificial intelligence (AI) in language learning through its sophisticated natural language processing powers and human-like communication (Floridi & Chiriatti, 2020, MacNeil et al., 2022). With the advent of these technologies, there is a need to reconsider the place of artificial intelligence in EFL instruction. One of the biggest examples of this is EWA: Learn English, which is one of the new learning language application with learning assistants that have appeared with the arrival of AI tools.

### **2.3. Duolingo and Game-Based Learning**

Launched in 2012, Duolingo is a language learning program that allows users to learn about ninety-five languages, including English (Duolingo About Us: Approach, 2021; Shortt et. al, 2023). There are various opinions on Duolingo. According to Aulia et al. (2020), Using the Duolingo application significantly improves students' English vocabulary mastery compared to traditional flashcard teaching methods. Duolingo also can promote acquiring two languages simultaneously for beginners, yet it has limitations; it is recommended to develop a more advanced version for advanced levels and English language learners (Ahmed, 2016). Furthermore, most undergraduate students perceive Duolingo as a useful and motivational tool for learning English but lack time to use it due to time constraints (Inayah et al.,2020).

While using the application first users select their preferred target language and, if they have some prior knowledge, can take a placement test. They receive bonuses for reaching daily goals of gaining a specific number of experience points. The Streak is increased by one day for each lesson finished on a given day (achievement), and it goes back to the beginning if no lessons were finished on any particular day (reinforcement). Occasionally, the application presents the user with additional objectives. These tasks can include extending the streak for a few more days, contrasting achievements with players in other leagues, or rewarding the user with exciting rivalry and instruction upon accomplishment of the challenge (Nah et al., 2013). The courses itself largely concentrate on providing fresh terms and exercises but each topic also introduces certain grammatical and cultural themes with very brief explanations. The lesson system is structured around various topics, including greetings, food, and family (Shortt et al.,2023).

In addition, there are grammar, translation, and multiple-choice vocabulary tasks available. Two approaches are taken to wrong replies. A specific amount of errors causes a user using a "heart" system to lose one out of every five hearts. The user is unable to continue practising until they get at least some of their hearts back when they have lost every one of them. On specific devices, making errors leads to more rehearsal and drills, which results in a little lower level of experience or success at the end of the session. The "heart" function does not exist on the app's web version and

seems to have been enabled for certain profiles but not for others. Errors typically receive a brief remark, while giving accurate answers results in a bonus and a brief thank-you at the conclusion of the session. In both cases, users can interact with other students by visiting a forum topic specifically devoted to answering each question. For the sake of clarity, Figure 1 shows the functions of Duolingo and its user face as well.

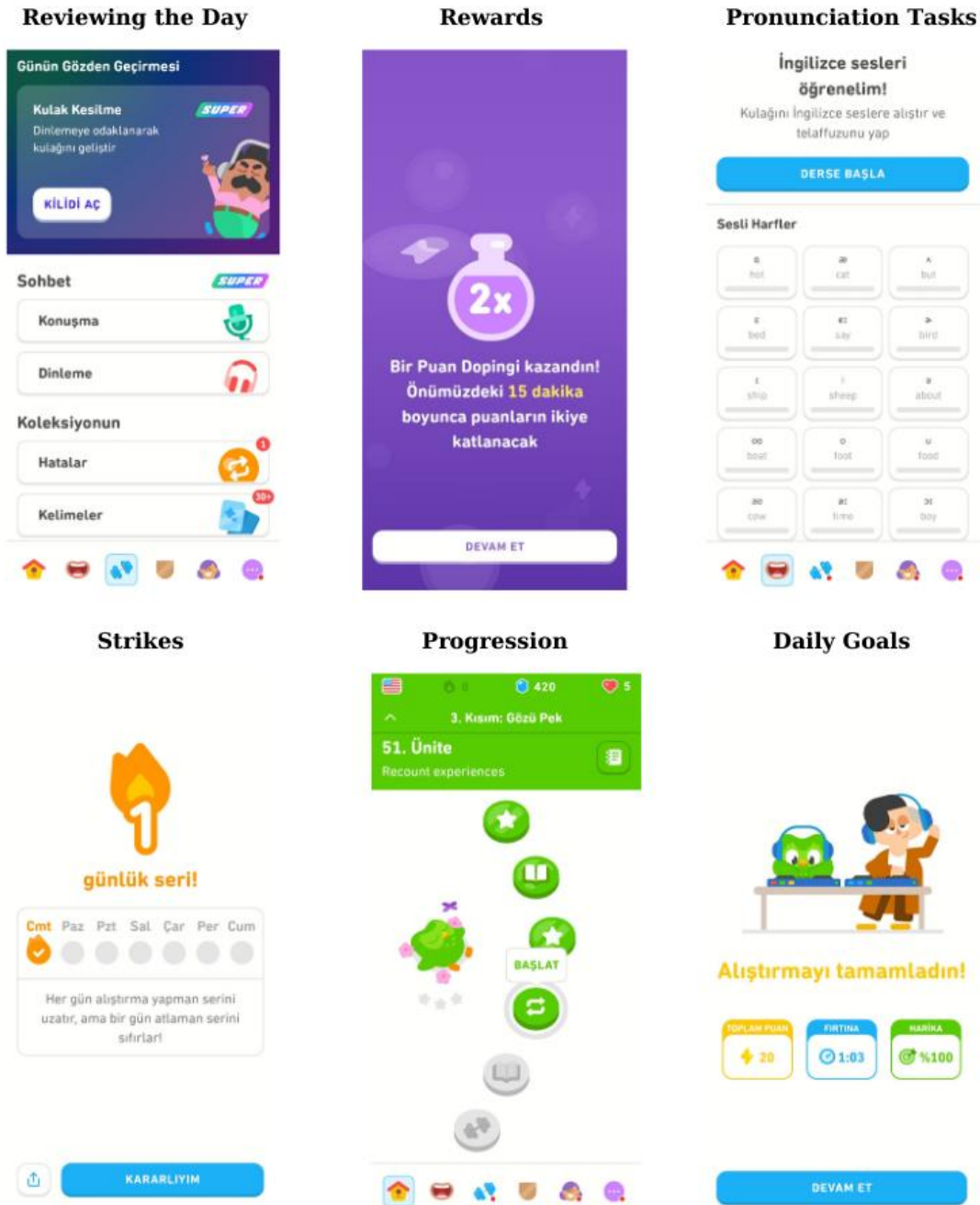


Fig. 1. The Functions of Duolingo

#### ***2.4. EWA and Game-based Learning***

Another fascinating app that the researcher has selected to look into is EWA: Learn English. It is a highly popular educational application that has been available since 2017. The app has been downloaded by more than 35 million users (Sanda & Klimova,2021). EWA offers vocabulary words across different subjects, such as colours, numbers, and days of the week. Each word is presented with its phonetic pronunciation and translation on cards. The app provides the user with access to hundreds of books in both audio and text formats. There is such a wide selection of books available. Well-known books like *Pride and Prejudice*, *Animal Farm*, *1984*, *Jane Eyre* and *Murder in the Orient Express* are available at the library. Additionally, you can change the text's size, enter night mode, or convert the textual form to an audio version that displays the currently checked text (Sanda & Klimova,2021). The application is likely to encourage and inspire pupils to have a positive mindset in order to assist them develop their talents.

Furthermore, EWA is user-friendly and differs from traditional learning. It is an AI-based application that represents a different form of educational technology from conventional training. That's why the researcher has selected to investigate. Tiang-uan (2023) reports that his research indicates that educators might utilize AI assistants in the application to improve their students' speaking comprehension; However, little study has been done on the attitudes of students toward using these apps for learning. From basic classes to intermediate levels and real-life discussions, the EWA app offers a vast array of English courses and lessons that are comparable to over a thousand English books. Students can practice listening and speaking and grasp the full meaning of the emotion while having fun as they learn from the film's diverse dialogues, storylines, dialects, and emotions. Every movie clip offers students the opportunity to ask the actors to speak slower than usual if they are having trouble understanding them, along with a detailed translation and interpretation of the scenario. Additionally, learning games are included in the application.

EWA assists students in developing their English skills. Students can practice listening and reproducing sounds with classes ranging from the fundamentals to the expert level by watching brief movie parts. They can read contemporary or popular books and listen to them at the same time. Also, they can do oral communication practices with EWA's avatars. All functions are in only one application. Thus, students can utilize the EWA program anywhere and at any time as a useful technical tool for efficient language learning practice. However, pupils must first recognize their individual levels to become conscious learners. Finding classes that are suitable for the students is the next stage. Choose a level that is suitable for the pupils because certain phrases may be easy for some while they are challenging for others. As a result, it is intended to gather perspectives on EWA and compare them to those on English comprehension using Duolingo and the EWA program. The application is a good, contemporary, and engaging medium that fits in with the times in which students have access to technology and the internet. Additionally, as students can choose their own classes at any time and from any place, they should be able to inspire pupils, cultivate positive attitudes, and build lasting language learning abilities. For the summary, Figure 2 depicts the functions of EWA and shows the user's face as well.

### Determining the Level of Users with Memes and Gifs

bu adam kendi hakkında neyi anlamıyor?

Kaç yaşında

Yumurtaıyla ne yaptığı İngilizce nasıl söylenir?

biting

"Where is your mum, Potter?" ifadesi nasıl çevrilir?

Cevap seç

Annen nerede, Potter?

Asan nerede, Potter?

### Chatting with AI Avatar

Claire Underwood sana yazdı

Is everything ready for the debate?

Your opponent is strong.

I know. I'm ready.

There's a new candidate.

Who is it?

Me.

You're running for president?

Cool, right?

But you're a 17-year-old blogger!

Sadece 17 yaşındaki bir blogger olduğuna şüpheli. Ama o 8 milyon takipçi olduğuna bilmeyce.

I hate 8 billion goers!

I have 8 million followers!

I got 8 millions flowers!

### Listening & Writing exercises

Videoda duyduğunuz cümleyi oluşturun.

Oh, coffee machine broken!

No coffee!

machine

machin

Doğru

İleri

### Games & Duels

MEMENTO

Resimleri hatırla ve onları gerekli kelimeyle yerine koy.

OYNA

DUELLING

Doğru cevapları seçerek gerçek kişilerle yarış.

OYNA

Deniz

Kolaylaş

Oyuncular

Profilim

### Idioms & common chunks

Uzman seviyesi

Belirli konularda sohbet et.

İleri kelime dağarcığı. Deyimler

1 / 21

İhtekli Sorular

İleri

Süpermarkette

Kelimeler, Evdeki Eşyalar

DEVAM

Deniz

Kolaylaş

Oyuncular

Profilim

### Streak & Rewards

Sen 1 gündür çalışıyorsun!

Çalışmanı daha etkili kılmak için her gün ara vermeden çalış.

Pat. Pzt. Sal. Car. Per. Cum. Cmt.

İleri

Fig. 1. The Functions of EWA

### 3. Methodology

#### 3.1. Research Model/Design

Qualitative methods have been used besides conducting a thematic analysis approach in this research. According to Clarke and Braun (2017) one way to find, examine, and analyze meaning patterns or themes in qualitative data is through the use of thematic analysis (TA). The primary rationale behind utilizing theme analysis in this research type is its suitability for understanding similar experiences, ideas, or actions within a dataset (Kiger & Varpio, 2020).

#### 3.2. Participants/Sampling

12 foreign language learners from regular English classes in a private language school were selected to participate in the study. Both males and females (F=7 and M=5) who were all proficient at the A2 level participated in the study. The participants were selected through purposeful sampling (Tongco, 2007). The participants were picked from the same classroom which is lectured by 2 separate teachers on different days. There was no distinction made based on gender or age. Furthermore, the participants were asked whether they had used AI-based apps before. 8 participants used an AI-based app before, and the rest haven't used any. It can be seen from Table 1 for a detailed description of the research participants.

**Table 1**  
*Demographic Status of Students*

Pseudonym	Age	Gender	Occupations	Are you currently actively working in an organization?	Have you ever used an AI-based application before?
P1	18-24	Male	Mechanic Technician	Yes	Yes
P2	18-24	Male	Computer Engineer	Yes	Yes
P3	18-24	Male	Mechanical Drafter	No	Yes
P4	18-24	Female	Pharmacy Technician	Yes	No
P5	25-30	Female	Nurse	Yes	No
P6	18-24	Male	Student	No	Yes
P7	18-24	Male	Mechanical Engineer	Yes	Yes
P8	18-24	Female	Teacher	Yes	Yes
P9	30+	Female	Teacher	Yes	Yes
P10	18-24	Female	Industry Engineer	Yes	Yes
P11	25-30	Female	Accountant	Yes	No



P12	25-30	Female	Ticket Clerk	Yes	No
-----	-------	--------	--------------	-----	----

### 3.3. Instruments/Materials

A thorough responder validation (Torlig, 2022) was conducted at every stage of the research process, which involved asking the participants for their opinions directly. The participants had the chance to hear the key findings and interpretations in both individual and group settings following the completion of the data analysis. The purpose of these member-checking sessions was to encourage frank and open communication, giving participants the opportunity to bring up any divergences or nuanced interpretations of their opinions, participation during these sessions was crucial in ensuring that the final results of the study accurately reflected their experiences and perspectives, as well as in enhancing the interpretations. In qualitative research, expert opinion is essential since it increases the credibility of the findings and offers insightful information (Sandelowski, 1998). To improve the validation of open-ended questions and questionnaires, expert opinions were taken into account in the preparation process by two lecturers from the university.

### 3.4. Procedure

The data collection was compiled through focus group discussions and one-minute papers in three weeks subsequently. The one-minute papers for the study were conducted by one researcher and in the classroom there was an observer teacher to ensure the objectivity of the study. The participants were given pseudonyms during the transcription process. The timing and place of the implementation process were adjusted to the participant's and researcher's availability. During the implementation process, there were no other people or distractions in the classrooms. Data collection from the students spanned a period of 3 weeks subsequently. During this time, students used the application for 30 minutes in the classroom, twice a week. Following each session, they completed a minute paper within 10 minutes, expressing their thoughts on the application. The analysis of all collected data was completed within one week. In the course of the study, the participants' verbal and written consent to take part in the study was obtained for the one-minute papers and the focus group discussions. Information about the interviews is presented in Table 2.

**Table 2**

*Information on the Data Collection Process*

Date	One-Minute papers	Duration
23-24 April 2024	Pros and Cons of Duolingo	30 min usage + 10 min for one-minute papers
30 April – 1 May 2024	Pros and Cons of EWA	30 min usage + 10 min for one-minute papers
7-8 May 2024	The Comparison of Duolingo & EWA	30 min usage + 10 min for one-minute papers

### 3.5. Data Collection and Analysis

The focus group discussion and one-minute papers were held only in Turkish because of the English level of participants. Using the techniques of inductive theme analysis, the researcher first

independently identified and coded all of the data from the focus group discussions and interviews with the instructors (Braun & Clarke, 2006). Subsequently, the researcher generated inductive categories and clusters, which they subsequently analyzed and compared. We reached a consensus on the relevant categories and important findings after a consultation procedure. Furthermore, version 2020 of the MAXQDA program was used to help classify the data during the research. For ethical reasons, participant identity was preserved by removing names; instead, each participant was given a number between 1 and 12, along with pseudonyms.

#### 4. Results

##### *Minute Papers*

After implementing each of the mobile apps for three weeks, students shared their comments on these two applications and filled out the minute papers. Duolingo was the first mobile program used in the study; it has been downloaded a great deal from app stores on various platforms. The results of the Duolingo minute papers are displayed in Table 3.

**Table 3**

##### *Positive aspects of Duolingo*

Positive Aspects	Number of participants	%
<b>Educational Themes</b>		
• Properly reviewing vocabulary	4	33,3%
• Creating buddy groups	2	16,6%
• Listening at a slowed speed	8	66,6%
• Comprehensive grammatical correction	9	75%
<b>Technical Themes</b>		
• Easy user Interface	6	50%
• Diversity in activities	5	41,6%
• Daily reminder notifications	7	58,3%
<b>Individual Themes</b>		
• Giving confidence	7	58,3%
• Addictive	7	58,3%
• Improving	4	33,3%
• Entertaining	6	50%

Three themes were identified in Table 3: "Educational themes, technical themes, and individual themes. 'Upon analyzing the participants' minute papers, the researcher found that the majority of participants believed that using Duolingo allowed them to arrange the speed of listening activities (66,6%) and receive comprehensive grammar correction (75%). From the participants, P1 and P6 stated this issue as follows:

*P1: "Sometimes I couldn't understand listening parts, but I learned that I could arrange speed to my needs, and that is fine."*

*P6: "One of the good parts of Duolingo is arranging the speed of listening activities since sometimes I didn't get it."*

The other participants felt that this program was addicting and that the daily reminder messages helped them keep up with their exercises (58,3%), as well as that it gave them confidence (58,3%).

*P3: "Seeing Daily reminders from Duolingo keeps me up to date and I did the exercises after classroom as well."*

*P5: "The app is addicting, and I used it a lot during the day more than once."*

*P9: The more I did true, the more I filled the exercises."*

While this was going on, 41,6% of the participants brought up the activities' variety.

*P12: "I was one of the users of Duolingo, but the updated version is much better, As far as I can see, there are new different various activities like mission games, etc."*

The researchers used the content analysis approach to code and count the unfavorable aspects of the participants' viewpoints. Table 4 contains negative aspects of Duolingo, and the number of participants mentioned in their minute papers and percentages.

**Table 4**

*Negative aspects of Duolingo*

Negative Aspects	Number of participants	%
<b>Educational Themes</b>		
• Excessive Repetition	9	75%
• Limited Writing activities	4	33,3%
<b>Technical Themes</b>		
• Often seeing advertisements	12	100%
• Limited hearts/chances	1	8,3%
<b>Individual Themes</b>		
• Boring	3	25%

There were more positive views than negative ones, as seen in the above illustration. Yet nearly all of the participants voiced complaints regarding the same issues. Table 3 shows that the majority of participants who left unfavorable comments expressed dissatisfaction with the frequency of advertisements they saw (%100) and the excessive repetition they encountered (75%). Participants stated their views as follows:

*P11: "Whenever I focus on the exercises, It shows up advertisements. This is annoying."*

*P3: "If you cannot finish the exercises, they start from the beginning."*

*P2: "When I was using the app in class, it began to display too many advertisements between activities, and after a while, I wanted to quit."*

Limited writing activities (33,3%), according to some others, are included in this application.

*P8: "In writing activities, you are not free, you just have to write the correct answer that algorithms want. I couldn't write my opinions truly."*

A minority of participants (25%) expressed boredom with the application, while 8,3% claimed it offered insufficient hearts or opportunities to continue with the activities.

*P1: "You have only 5 hearts to do exercises, after finishing them, you cannot go on and have to wait a whole day. After a while, living a limited life becomes really boring."*

**Table 5**

## Positive aspects of EWA

Positive Aspects	Number of participants	%
<b>Educational Themes</b>		
• AI feedback	8	66,6%
• Creating buddy groups	11	91,6%
• Listening at a slowed speed	3	25%
• Interaction with AI Avatar	12	100%
<b>Technical Themes</b>		
• Easy, attractive, colourful user Interface	10	83,30%
• Diversity in activities (Books, articles, games, duels)	12	100%
• Using memes, and gifs from popular topics	11	91,6%
• Daily reminder notifications	6	50%
<b>Individual Themes</b>		
• Giving confidence	9	75%
• Addictive	12	100%
• Improving	9	75%
• Entertaining	12	100%

After reviewing the participants' minute writings, the researcher discovered that most participants thought they could communicate with and receive feedback from the AI avatar (%100) when they used AI-based EWA.

*P2: "In the speaking activities, I could communicate with an AI avatar that I chose before and during the conversation speaking with the AI felt like I was talking with a human, and she gave me feedback. That is a good experience to learn a foreign language."*

*P7: "The most salient part of EWA is an application based on artificial intelligence and communication with AI relieved me a lot because I knew that it was a machine, and I could make mistakes."*

Additionally, the participants thought that this program had a variety of features, including games, novels, podcasts with instructional content, listening exercises, and duels (%100). All of the participants thought the application was engaging and addicting as a result.

*P4: "EWA is quite addictive. Especially if you are in dual mode, in the classroom you can duel with your friends and become rivals of each other. In the classroom I quite enjoyed."*

P9: “During the testing EWA, I prefer reading books in it. While I was reading ‘Happy Prince’ there were some unknown words, I clicked on them and saw their meanings in Turkish.”

P10: “There are plenty of games to learn English, our teacher used them during the testing period. I felt that I engaged the classroom and learned those words easily.”

Some report that they can form Buddy groups using EWA (91,6%) and that the daily reminder messages (50%). Also, the app gives confidence to help them remember to complete their activities (75%).

P5: “In three weeks EWA send me Daily reminder messages and gifs to continue the exercises. I did that, it gave me the confidence to go on.”

In addition, the participants stated that EWA employs gifs and memes from well-known TV series to draw in users and has an intuitive, colourful, and eye-catching user interface (91,6%).

P4: “Before determining my English level, the app shows popular gifs and short videos from TV shows. That grabbed my attention. Because I love How I Met Your Mother. Also, it has an eye-catching and colourful interface for users.”

P8: “As a teacher, the variety of the activities motivated me a lot. Because I could learn English in every aspect.”

Besides, Table 6 contains negative aspects of EWA and the number of participants mentioned in their minute papers and percentages.

**Table 6**

*Negative aspects of EWA*

Negative Aspects	Number of participants	%
<b>Educational Themes</b>		
• Excessive Repetition	3	25%
• Limited speaking with AI Avatar	6	50%
<b>Technical Themes</b>		
• Often seeing advertisements	12	100%
• More Paid Features	10	83,3%
• Limited hearts/chances	2	16,6%

There are just two themes for negative features in EWA: technical and educational. Additionally, as the corresponding image shows, there are more favourable opinions than negative ones. But almost every participant complained about the same problems once more. According to Table 6, most participants who made negative comments were unhappy with how often they encountered advertisements (%100) and how many paid features they came across (83,3%).

P7: “Comparing Duolingo, I liked EWA more since it has so many features than the other one. However, most features are limited, and you should pay money to unlock them. Nevertheless, I will continue to use it because of the AI avatar.”

P10: “There are so many advertisements between activities, it is quite distracting.”

This application includes a limited number of oral communications with AI avatars (50%), according to some others.

*P6: "I want to talk with AI more, But the topics are limited, and I had to speak just that topic."*

16,6% said there weren't enough hearts or possibilities to keep going.

*P12: "As Duolingo, EWA has limited hearts. I made mistakes and finished all of them. Then I just sit and wait for my friends to finish the exercises."*

### **The comparison of Duolingo and EWA**

In the last week, the participants compared two applications and stated their opinions in the last-minute paper as follows:

**Table 7**

*The comparison of both applications and opinions*

---

**Research Question**

---

After this trial period, which application would you choose to learn English from, Duolingo or EWA? Why?

---

*All participants (12) in this study answered EWA to this question. They listed the reasons as follows:*

- There are more features, information, and activities on EWA.
- It is more efficient in speaking activities since artificial intelligence supports it.
- The application's User Interface is more eye-catching and vibrant.
- EWA avatars can vary their accents, as well as their gender and character, based on the student's preferences.

### **5. Discussion**

In the context of learning English, the study offered a comparative comparison of two well-known mobile programs, Duolingo and EWA. Participants used both programs for the course of a three-week trial period, providing feedback on their experiences using minute papers that highlighted the advantages and disadvantages of each app. This discussion goes into greater detail about the results, citing pertinent research and thinking about broader implications for mobile-assisted language learning (MALL).

Due to its user-friendly layout and gamified approach, Duolingo has become a well-known language-learning program. Study participants liked the listening activities' customizable pace and thorough grammatical corrections. These characteristics are consistent with earlier studies that highlight the value of adaptive learning resources for improving language acquisition (Golonka et al., 2014). Additionally, Duolingo helps reinforce language skills, especially grammar and vocabulary, by offering repeated, controlled practice (Vesselinov & Grego, 2012).

But the investigation also found a few serious weaknesses. Frequent ads and excessive repetition were identified by participants as the two main problems. When students perceive that there is no originality or challenge in the material, excessive repetition might cause boredom and disengagement (Loewen et al., 2019). Furthermore, the constant barrage of adverts interferes with the learning process, causing users to get frustrated and demotivated (Perez-Peña, 2018). The literature requires more equitable strategies dealing with all language abilities, including successful ones like writing and speaking. This criticism is repeated by the limited scope of writing tasks, which further highlights Duolingo's shortcomings in offering comprehensive language practice (Munday, 2016).

Participants praised EWA, which uses AI-based features, for great marks. Particularly well-liked were the interactions with AI avatars and the range of activities, which included games, books, and articles. According to studies on the advantages of utilizing AI in education to create personalized feedback and interactive learning environments, these aspects enhance engagement and improve learning experiences (Zawacki-Richter et al., 2019). In line with research showing that social interaction and visual aids can greatly improve language learning, being capable of creating buddy groups and the use of viral videos and gifs from popular media sources also increase user involvement by making learning more social and enjoyable (Golonka et al., 2014). Notwithstanding its advantages, EWA was criticized for having a lot of paid features and a lot of adverts. Users may feel constrained and under pressure to make in-app purchases in order to access critical functionality, which can pose a barrier to both user pleasure and continual learning (Chen & Jang, 2010). Other mentioned drawbacks included the restriction of having a finite number of hearts or chances and limited options for conversing with AI avatars. These restrictions show how more flexible and open access to educational activities is necessary to keep users motivated and engaged (Epp, 2017).

The user interfaces of both apps were appreciated; Duolingo received recognition for being the easiest to use, while EWA was commended for having a visually appealing and vibrant design. Another area of strength for both apps was their diversity of activities, with EWA just managing staying ahead thanks to its wider selection of interesting content, which included games, duels, and multimedia resources. Participants in both apps expressed gratitude for the daily reminder alerts since they support the maintenance of a regular learning schedule, which is essential for language acquisition and advancement (Dörnyei, 2001).

For both programs, many advertisements and other technical problems were common complaints. This disturbance can have a big effect on the learning process since it can make learning less focused and efficient (Hassenzahl & Tractinsky, 2006). Concerns around equality and accessibility were also highlighted by the premium features since some users would not be able or willing to pay for extra content, which could limit their learning chances (Kapp, 2012). Individuals claimed that both programs increased their confidence and gave them a sense of progress. Participants particularly praised the interactive and varied aspect of EWA's material, noting that it was highly interesting and addictive. These components are essential for preserving user motivation and engagement, both of which are critical for effective language acquisition (Ushioda, 2011). Personalized learning experiences made possible by the use of AI in EWA helped students feel less nervous about making mistakes and more supported, both of which are advantageous for language learning (Skehan, 2009).

Nevertheless, some individuals experienced boredom and dissatisfaction as a result of few opportunities or excessive repetition. These drawbacks can impede the advancement of learning and lower user happiness generally, emphasizing the necessity for a well-balanced strategy that provides adequate practice without being boring (Kukulka-Hulme & Shield, 2008).

## **6. Conclusion**

This study investigated the opinions of Turkish EFL learners regarding the use of Duolingo and the AI-powered program EWA for language learning. The results show that both programs, each with its advantages, provide beneficial assistance for language learning. Duolingo received recognition for its methodical, gamified approach, which raised interest and motivation. However, EWA's customized learning process and use of AI to customize material to each user's needs were highly praised. Participants emphasized how the learning was made fun and accessible by Duolingo's user-friendly

interface and wide variety of exercises. The emphasis on conversational practice and adaptive learning characteristics of EWA were found to be beneficial in enhancing speaking abilities and sustaining student engagement.

The overall results of the study highlight the possibilities for assisting EFL learners through both conventional and artificial intelligence (AI)-based methods. By accommodating different student preferences and improving the overall learning experience, integrating such technology into language teaching can offer a variety of flexible and expanded learning options. These resources will probably get more advanced as technology develops, which will benefit language learners even more.

## 7. Limitations and Suggestions for Further Research

There are various restrictions on this study. First, the results can't be applied to a large enough sample size (12 students from one private language school). Second, the three-week trial period might not have captured long-term impacts, and the use of self-reported data might have caused biases. Furthermore, outside variables like individual learning preferences and past experience with language learning applications were not taken into account.

In order to observe long-term impacts, future research ought to broaden the study duration and incorporate bigger, broader groups from a range of educational settings. An assessment that is more thorough can be obtained by using a mixed-methods approach that combines qualitative and quantitative data. Deeper insights and guidance for the development of efficient language learning tools will come from examining individual variations and contrasting other AI-based language learning applications.

## Acknowledgements

I would like to express my sincere gratitude to the participants for their time and cooperation.

## References

- Ahmed, H. (2016). Duolingo as a Bilingual Learning App: A Case Study. *Arab World English Journal*, 7, 255-267. <https://doi.org/10.2139/SSRN.2814822>.
- Aulia, H. R., Wahjuningsih, E., & Andayani, R. (2020). THE EFFECT OF DUOLINGO APPLICATION ON STUDENTS' ENGLISH VOCABULARY MASTERY. *Eltr journal*, 4(2), 131-139.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Chen, C. M., & Jang, J. S. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior*, 26(4), 741-752.
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The journal of positive psychology*, 12(3), 297-298.
- Dörnyei, Z. (2001). *Motivational Strategies in the Language Classroom*. Cambridge University Press.
- Duolingo Help Center. (2020). What is Duolingo? <https://support.duolingo.com/hc/en-us/articles/204829090-What-is-Duolingo->



- Ekinci, E., & Ekinci, M. (2017). Perceptions of EFL learners about using mobile applications for English language learning: A case study. *International Journal of Language Academy*, 5(5), 175-193.
- El-Hussein, M. O. M., & Cronje, J. C. (2010). Defining mobile learning in the higher education landscape. *Educational. Technology & Society*, 13(3), 12-21.
- Epp, C. D. (2017). Overcoming Accessibility Barriers for Mobile Learning in Higher Education. *EDUCAUSE Review*.
- Ergin, D. Y., Asutay, H., & Dogan, C. (2022). Distance Education Problems in Foreign Language Education during the Pandemic Period. *Open Journal for Educational Research*, 6(1), 43-56.
- Featherstone, M. (1993). Consumer culture and postmodernism.. <https://doi.org/10.4135/9781446288399>
- Floridi, L., & Chiriatti, M. (2020). GPT-3: Its Nature, Scope, Limits, and Consequences. *Minds and Machines*, 30(4), 681–694. <https://doi.org/10.1007/s11023-020-09548-1>
- Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer Assisted Language Learning*, 27(1), 70–105. doi:10.1080/0958 8221.2012.700315
- Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: a review of technology types and their effectiveness. *Computer Assisted Language Learning*, 27(1), 70-105.
- Hassenzahl, M., & Tractinsky, N. (2006). User experience – a research agenda. *Behaviour & Information Technology*, 25(2), 91-97.
- Hong, W. C. H. (2023). The impact of ChatGPT on foreign language teaching and learning: Opportunities in education and research. *Journal of Educational Technology and Innovation*, 5(1).
- Huang, J., & Li, S. (2023). Opportunities and challenges in the application of ChatGPT in foreign language teaching. *International Journal of Education and Social Science Research*, 6(04), 75-89.
- Hwang, W. Y., Chen, C. Y., & Chen, H. S. (2011, October). *Facilitating EFL writing of elementary school students in familiar situated contexts with mobile devices*. In 10th World Conference on Mobile and Contextual Learning, 18-21, October 2011, Beijing, China: MLearn2011 Conference Proceedings, 15–23.
- Inayah, N., Yusuf, Q., & Fibula, N. (2020). EXPLORING UNDERGRADUATE STUDENTS' PERCEPTION TOWARD THE USE OF DUOLINGO IN LEARNING ENGLISH. *Humanities and social sciences*, 8, 76-85. <https://doi.org/10.18510/hssr.2020.839>.
- Kapp, K. M. (2012). *The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education*. Pfeiffer.
- Kiger, M. E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical teacher*, 42(8), 846-854.

- Klimova, B. (2021). An insight into online foreign language learning and teaching in the era of COVID-19 pandemic. *Procedia computer science*, 192, 1787-1794.
- Kondo, M., Ishikawa, Y., Smith, C., Sakamoto, K., Shimomura, H., & Wada, N. (2012). Mobile assisted language learning in university EFL courses in Japan: Developing attitudes and skills for self-regulated learning. *ReCALL*, 24(2), 169–187. doi:10.1017/S0958344012000055
- Kukulka-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271-289.
- Liu, T.C., Wang, H.Y., Liang, J.K., Chan, T.W., Ko, H.W., & Yang, J.C. (2003). Wireless and mobile technologies to enhance teaching and learning. *Journal of Computer Assisted Learning*, 19(3), 371-382.
- Loewen, S., Isbell, D., & Sporn, Z. (2019). The effectiveness of app-based language instruction for developing receptive linguistic knowledge and oral communicative ability. *Foreign Language Annals*, 52(3), 504-528.
- MacNeil, S., Tran, A., Mogil, D., Bernstein, S., Ross, E., & Huang, Z. (2022, August). Generating diverse code explanations using the gpt-3 large language model. In *Proceedings of the 2022 ACM Conference on International Computing Education Research*, Volume 2 (pp. 37-39). <https://doi.org/10.1145/3501709.3544280>
- Munday, P. (2016). The case for using Duolingo as part of the language classroom experience. *RIED. Revista Iberoamericana de Educación a Distancia*, 19(1), 83-101.
- Nah, F. F. H., Telaprolu, V. R., Rallapalli, S., & Venkata, P. R. (2013, July). Gamification of education using computer games. In *International Conference on Human Interface and the Management of Information*, 99–107. Springer.
- Pachler, N., Bachmair, B., & Cook, J. (2010). *Mobile learning: Structures, agency, practices*. London, United Kingdom: Springer.
- Perez-Peña, R. (2018). The Commercialization of Higher Education. *The Chronicle of Higher Education*.
- Sanda, L., & Klimova, B. (2021). Educational mobile applications for learning English as a second language by Czech seniors. *Procedia Computer Science*, 192, 1848-1855.
- Sandelowski, M. (1998). Writing a good read: Strategies for re-presenting qualitative data. *Research in nursing & health*, 21(4), 375-382.
- Shortt, M., Tilak, S., Kuznetcova, I., Martens, B., & Akinkuolie, B. (2023). Gamification in mobile-assisted language learning: A systematic review of Duolingo literature from public release of 2012 to early 2020. *Computer Assisted Language Learning*, 36(3), 517-554.
- Skehan, P. (2009). Individual Differences in Second Language Learning. *Studies in Second Language Acquisition*, 31(2), 313-320.
- Tiang-uan, A. (2023). An exploration of the opinions towards the use of the EWA application for improving English listening ability of grade 8 students at an English medium instruction school in Samut Sakhon province. *Parichart Journal, Thaksin University*, 36(2), 20-34.

- Toland, S. H., Mills, D. J., & Kohyama, M. (2016). Enhancing Japanese university students' English-language presentation skills with mobile-video recordings. *The JALT CALL Journal*, 12(3), 179–201. doi:10.29140/jaltcall.v12n3.207
- Tongco, M.D. (2007). Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research and Applications*, 5, 147-158.
- Torlig, E., Junior, P. R., Fujihara, R., Demo, G., & Montezano, L. (2022). Validation Proposal for Qualitative Research Scripts (Vali-Quali). *Administração: Ensino e Pesquisa*, 23(1).
- Ushioda, E. (2011). Motivating Learners to Speak as Themselves. In Dörnyei, Z. & Ushioda, E. (Eds.), *Teaching and Researching Motivation* (pp. 173-184). Pearson Education.
- Vesselinov, R., & Grego, J. (2012). Duolingo effectiveness study. *City University of New York*.
- Wu, W. H., Wu, Y. C. J., Chen, C. Y., Kao, H. Y., Lin, C. H., & Huang, S. H. (2012). Review of trends from mobile learning studies: A meta-analysis. *Computers & Education*, 59(2), 817–827. doi:10.1016/j.compedu.2012.03.016
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators?. *International Journal of Educational Technology in Higher Education*, 16(1), 39.