



## **English Language Acquisition Via Duolingo Application: Effectivity and Challenges**

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### *Abstract*

English Language acquisition is significant as education enters globalization. English is the world's lingua franca which enables speakers with different language backgrounds to communicate effectively. In order to successfully teach the language, teachers use different tools and approaches. 21st-century education opens a new effective way of conducting the learning process. It upgrades from a conventional type into ICT (Information and Communication Technology) integrated one which might accommodate full-online English Learning. Duolingo is a language-learning application wherein students can learn English from a series of activities like Translation, Matching, Dictation, Fill-in-the-blank, Speaking, Listening, Multiple Choice, and Competition. Thus, this paper discussed the use of Duolingo in language learning and its capacity to accommodate full English acquisition. Various challenges arose about its usage like - Unavailability of Devices, Internet Access, Students' Behavior while using Phones, and Activity problems in Duolingo - unnatural sentences, lack of grammar guide, weak translations, pronunciation errors, and annoying advertisements which made Duolingo's effectiveness questionable. As a result, this paper found out that Duolingo may just be a supporting tool in teaching the basics, and it is not enough to accommodate full-English language learning. However, as the application upgrades, further researches must be conducted to gather changes.

**Keywords:** *Duolingo, English acquisition, Information and Communication Technology (ICT), application, game-like activities.*

### **Introduction**

“In a world that is constantly changing, education, teaching, and learning cannot remain stagnant” (Filippousis, 2019). This statement argues that learning is a life-long process, it never stops. Hence, the world is progressing and the education sector must cope with the change. Aside from the development of the education content, there's also a change in its pedagogy or art of teaching as we approach the modernity of learning. The delivery of the content varies from one era to another. Previously, we just used the conventional type of tools such as blackboards, chalks, or visual-aids, but due to the advancement of technology,

tools in education changed to PowerPoint presentations, audio-visual materials, videos, or recordings. In addition, even the learning platforms change from the typical classroom setting to virtual learning applications such as Memrise (an application to enhance the vocabulary of the learners), Babbel (with premium subscription, students can learn numerous languages), HelloTalk (learners can practice their speaking skills to native English speakers), and Duolingo – which is the app this paper will explore.

Duolingo is the most popular language-learning platform and the most downloaded education app in the world, with more than 300 million users. The company's mission is to make education free, fun, and accessible to all. This is a game-based application which teaches students to learn English as their second or foreign language. It is convenient as students can download it freely on their mobile phones and computers. It provides a series of activities starting from word vocabularies to word usage in sentences. This virtual application enhances the learning environment as it is fully technology-based. Students will be technologically skilled while learning education content. These changes can be described as progress in Information and Communication Technology (ICT). We are all living in the decade of multimedia and the millennium of the Internet and the World Wide Web (WWW) (Yunus, Lubis & Lin, 2009). The discovery of the internet is a catalyst of change that brings us a better way of learning. We need to maximize the availability of the information on the internet plus the use of virtual learning applications to acquire our best competencies.

Technology and its application to the teaching and learning process is not a new phenomenon. Teachers need to be innovative and creative in order to hold the students' attention and retention to their lesson. In English language education, it is a challenge to promote its easy acquisition, one technique to do is to inform the students the importance of learning English language. English is considered as the universal language or lingua franca, according to Nordquist (2020), a lingua franca (ELF) refers to the teaching, learning, and use of English as a common means of communication (or contact language) for speakers of different native languages. Learning the English language is important to reach, communicate, and understand people effectively, hence there is a need to enhance its acquisition. Based on the result of the Pew Research Center in their Scenario Two: English displaces other languages: Prediction and Reactions, as they asked the public whether English will be displaced as being the universal language, it resulted as English will retain in its place as world's lingua franca for at least the next 15-20 years. Thus, acquiring the English Language in education must be developed.

There's no doubt that the advancement of technology and its usage can enhance the acquisition of the English Language. ICT is very prominent as it provides lots of medium for the teachers and the students to explore and enhance the teaching and learning process. ICT is seen as a skill for life, now as important as being literate and numerate (Simmons & Hawkins, 2009). From the results of numerous researches regarding these variables, we can say that technology plays a vital role in acquiring knowledge in this modern era. However, it is not yet explored whether the full use of virtual learning applications such as Duolingo may affect greatly or poorly in the teaching and learning process and English language acquisition. We should accept the fact that there is a big possibility that in the future, education will enter the full-online spectrum of classes which will again change the education perspective.

Thus, this paper will discuss the following components: 1. The underlying framework which supports the use of technology in English language acquisition, 2. The application Duolingo and its Features, 3. Duolingo's Effectiveness, 4. Challenges faced by the English language learners in using Duolingo and its probable solutions.

In today's modernity of learning wherein both students and teachers are using lightweight devices to access information and learn, we cannot deny the fact that its importance is definitely growing. We can see the changes from heavy computers to microdevices like mobile phones, Ipads, and tablets which promote "anytime and anywhere learning". In addition, people who are embracing this change are increasing as they experience its effectiveness. Studies on the effectiveness of mobile phone applications for classroom activities have been well-documented. Mobile phone use in the classroom improved students' learning process at the K-12 school level (Liu, Scordio, Renata, Navarete, Yujung, & Lim, 2015).

As Duolingo is a mobile application for language learning, the Mobile-Assisted Language Learning (MALL) framework is suitable in supporting its effectiveness. As technology advances, everything becomes wireless and portable, thus there is a shift from computer-assisted learning to mobiles. Other technologies that hold the capacity for language learning include Personal Digital Assistant (PDA), multimedia cellular phones, MP3 players, DVD players, and digital dictionaries (Zhao, 2005, p.447).

There are advantages of using this framework in language acquisition. First, since mobiles are easy-to-carry anytime and anywhere, hence it provides language learners portable personal learning. Students have their own control over when and where to learn, the learning process is not only limited in the four-cornered classroom. The learning materials are accessible as long as the students have internet connection. Liu, Scordio, Renata, Navarete, Yujung, & Lim (2015) support these ideas as they added that MALL's main advantage is its mobility of learning. Second, the use of the internet in mobiles offers a wider array of information resources, thus mobile-assisted learning gives the opportunity to both teacher and students to explore new knowledge, share the information, think critically, improve skills, and change the perspective on teaching and learning concept (Kusmaryani, et.al, 2019). In addition, teachers may have unlimited references of effective activities or tasks that will enable students to improve themselves. Third, this promotes both group and individual learning. As students are exposed to language learning applications and resources, they can share and learn the language together or adaptively use the gathered information to learn by themselves. As support, mobile technology provides various resources and tools for language learning that encourage learners to be more motivated, autonomous, situated (site-specific), and socially interactive (Kim & Kwon, 2012).

In many studies, MALL proves efficacy as it gathers positive results. (Alavinia & Qoitassi, 2013; Chen, Hsieh, & Kinshuk, 2008; Motallebzadeh & Ganjali, 2011; Yang, 2013). Duolingo is also under the category of Mobile Assisted Language Learning as these share the same vision – language learning to be fun, accessible, accurate, and free. The use of Duolingo application in learning the target language also advocates the essence of mobile-assisted language learning which is the "learning at anytime, anywhere". The language learners may use the application as long as they have internet connection, whether it is Wi-Fi or internet data.

## **Duolingo Application**

Duolingo is a famous language-learning application that can be downloaded on both computers and mobiles for free, it is available on Playstore for Android and Appstore for IOS devices. It offers more than 30 languages to learn, thus language learners have options which language they prefer to learn. This application also accommodates the use of four-language skills (listening, reading, writing, and speaking) as it offers a skill tree of lessons that use listening exercises, flashcards, and multiple-choice questions to drill you on new words, phrases, and sentences (Ravenscraft, 2019). It provides learners with different categories to enhance their vocabulary and use it in sentence construction.

Aside from the free version of the application, Duolingo company introduced Duolingo Plus as a premium version to be added in the experiences of the language learners. Its benefits are the following: 1. An ad-free learning; 2. Ability to download lessons in the app for offline use; 3. Learner may receive unlimited hearts – it serves as the life of the users, once they lost the heart by committing mistakes, they need to repeat the lesson again; 4. Unlimited skill test-outs – Free version needs internet to function, but in Duolingo Plus learners can download the course and answer it offline; 5. Monthly streak repair – to have a streak, learners must continuously play the application, however, if they failed to do so they will destroy their winning streaks. In this feature, the application can repair it back again; 6. Progress/Mastery Quiz.

## **Features of Duolingo**

### ***Gamification***

The application encourages language learning through game-like features in every lesson. It implicitly teaches students the language as if they are just playing. A game is a “rule-based environment that is responsive to the player’s actions, offers an appropriate challenge to the player, and keeps a cumulative record of the player’s actions” (Mayer & Johnson, 2010). Games are fun that learners enjoy; hence teachers distinctively apply games in the teaching and learning process to elicit more activeness from the class. The popularity of using games in the class developed which resulted in the introduction of educational games - a technology-supported game that is intended to result in a desirable change in the player’s knowledge (Goehle, 2013; Mayer & Johnson, 2010).

### ***Learners’ Points and Levels***

As the English language learner started answering the questions, every correct answer has a corresponding point. One of the key aspects of Duolingo is its immediate grading of language learners. Once the learner answered the question incorrectly, the application instantly shows the learner his/her mistakes and how to correct it. If the learner keeps conducting mistakes, Duolingo will repeat the questions as drills. As the learners are given points, they will be grouped into certain levels. Mekler et al. (2013) discovered that awarding points was effective in increasing motivation. These aspects enhance the motivation of the students and encourage them to continuously learn their target language and aim for higher ranks

### *Achievement Badges*

Achievement badges are symbolic awards given to students for completing “any type of skill, knowledge or achievement” (Abramovich, Schunn, & Higashi. 2013). In Duolingo, the application gives badges to the language learners when they cleared the levels correctly. These badges differ from colors and worth, as the language learning process increases, the learners will gain more. This feature serves as an encouragement to the language learners, they feel as if it a gift for their hard work. Similarly, Geohle (2013) reported that learners felt rewarded for completing their homework and appreciated the extra acknowledgment obtained when they were awarded a badge or an achievement. The badges and badges are depicted in Figure 1 below.

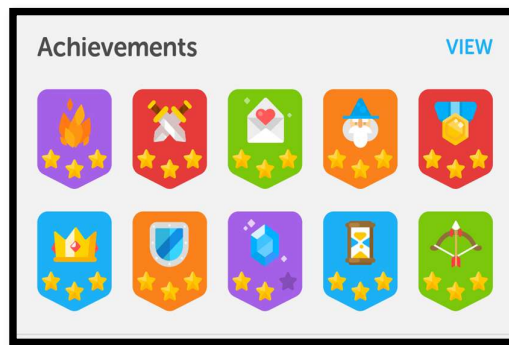


Figure 1. Achievements and badges

### *Leaderboards*

Leaderboards are a visualization of achievement. The purpose of a leaderboard is to show people where they rank in a gamified system. It shows them where they stand in relation to their peers (Geckoboard, 2020). Duolingo offers social learning because learners can interact with other English language learners and compete against them to rank higher on the leaderboard, as can be seen in Figure 2 below. In addition, leaderboards have been shown to inspire “participants to maintain their performance for a longer time (Mekler et al., 2013). This encourages English language learners to constantly use the application or else they will fall from the ranks.

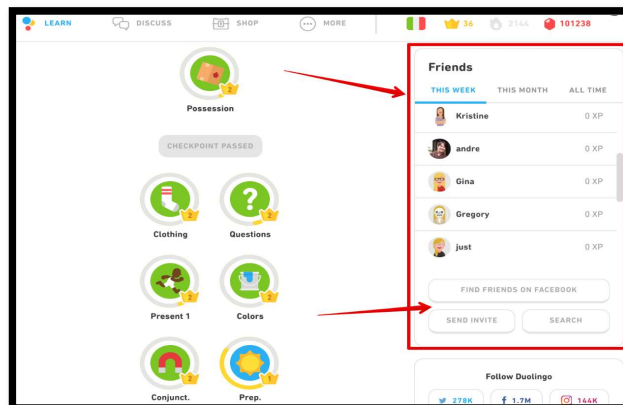


Figure 2 Leaderboard

### **Duolingo Stories**

These are interactive stories in which learners will hear or read in their target language, then the application will ask the learners which vocabulary word is correct. The question varies, it could multiple-choice, fill in the blanks, and sentence arrangements. This feature welcomes the language learners to real scenarios where they can apply the authentic usage of their target language, as can be seen in Figure 3 below. As of now, these stories are just available in several languages – Spanish, Italian, English, Portuguese, German, and French.

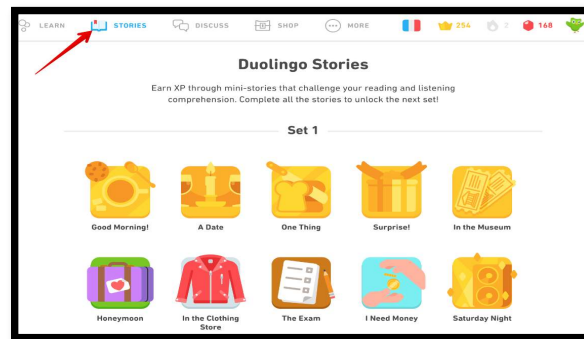


Figure 3. Duolingo stories

### **Duolingo Push**

Another feature that helps learners to continuously acquire the English language in the application is Duolingo Push. In the free application, Duolingo always sends notification on the users' phone or emails encouraging them to learn the target language for at least fifteen (15) minutes a day. However, the company learned that it is not enough to truly encourage learners thus, they upgraded their reminding process as they launched the Duolingo Push. It is a premium feature in which the iconic green owl named Duo will personally meet the users to remind them to continue learning the language. Duolingo pushes their notifications into the real world. It has three (3) types of In-Person Reminder named (1) **Encouraging Duo** which is a reminder to motivate the language learners to continue their streaks or else they will lose from the leaderboard. Language learners shall pay twenty-five dollars (\$25) to access this reminder; (2) **Passive-Aggressive Duo** in which Duo might

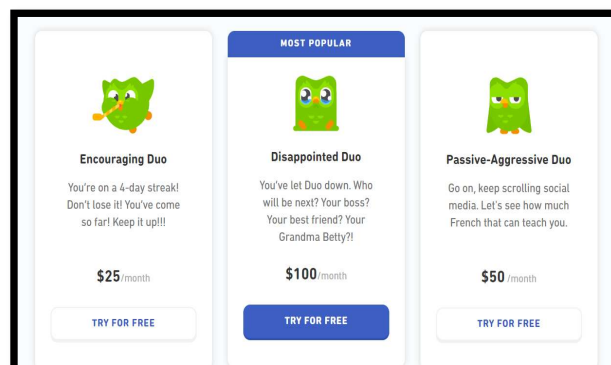


Figure 3 Duolingo push

act aggressive in order to remind the learners to open the application and learn. It costs fifty dollars (\$50) to access; and (3) **Disappointed Duo** that targets the emotional aspect of the learners in order to motivate them. It is said that this is the most popular type of in-person Duolingo push reminder. It costs one hundred dollars (\$100). This feature serves as an additional extrinsic motivation for the users to constantly check the application and learn the target language. This feature is depicted in Figure 4 below.

### *Language Acquisition Exercises*

With the use of the discussed features above, Duolingo caters the English Language Acquisition through a series of activities. These are presented as game-like exercises; hence students enjoy answering them. While using the application, they are implicitly learning the English language skills. The exercises include: (1) **Translation** involves translation of words or sentences from their own language (L1) to the target language (L2) or vice versa. This exercise enriches the vocabulary and knowledge on grammar structure of the learners; (2) **Matching** activities will check their vocabulary by matching the words correctly from L1 to L2 or vice versa, it could be words or pictures. The application also provides the photos-words matching to show how the objects look like. It is very important and helpful to visual learners; (3) **Dictation** allows learners to write the sentence he/she hears. They could choose from two speed options – normal or slow to successfully transcribe the given sentence. In this exercise, students can enhance their listening and speaking skills. Listening as they need to carefully listen to the words being dictated and speaking as dictation shows the proper pronunciation of words in English Language; (4) **Fill-in-the-blank** tests the learners' knowledge of grammar structure and vocabulary as they need to type or choose the missing word to complete the sentence. This exercise needs critical thinking of the students as they need to know what the correct word is to complete the phrases or sentences; (5) **Speaking** promotes focus as the learners need to pay attention to the correct pronunciation of the words and then will be asked to restate the sentences given. One of the features of Duolingo that promotes speaking to the students is the Duolingo stories, this may show the correct diction, tone, and stress of the words in the sentences; (6) In **Listening** activity learners need to listen to the words, phrases, and sentences then rewrite it in the space given. This develops focus, vocabulary, listening and writing skills of the students; (7) **Multiple Choice** gives learners the power to choose the appropriate words, phrases, or sentences from the options to correctly for sentences, thus their grammatical structure knowledge will be enhanced; and lastly (8) **Competition** is the activity which learners can compete with other players to test their knowledge in the target language. The players will be ranked according to their scores from the given exercises.

Duolingo categoric lesson has 10 – 15 short exercises. English learners can see their development when they answer the questions correctly, if not, then questions will be repetitively asked. They are also free to retake the exercises to practice their knowledge.

### **Effectiveness**

Based on the several journals and studies which discussed the effectiveness of the Duolingo application, it showed statistically significant improvements in language abilities as a result of using the app (Vesselinov & Grego, 2012).

This application is free and accessible to all language learners. In addition, it comprises game-like activities that ensure that language learners will acquire the language in a fun way. Duolingo also provides photos and sounds which help in attracting learners' attention. Its features just like the pointing system, levels, leaderboard, and Duolingo push encourage the learners to continuously learn the language. They feel motivated when they will get badges as a return. They also realize the importance and authenticity of the language as Duolingo provides interactive stories where students can practice real scenario conversations.

Amin (2019) argues that the Duolingo application is very useful in increasing students' vocabulary mastery. Its implementation makes the learning process be more entertaining and effective. Learning is free while earning points for correct answers, racing against the clock, and leveling up. It makes students more active and confident. In addition, Bennani & Mosbah (2018) state the improvement corroborated the effectiveness of the Duolingo platform in developing learners' vocabulary and grammar acquisition. Students can increase their word bank and implicitly learn the rules of sentence formation. Also, students can easily understand the materials and independently practice language acquisition. It also heightens the social learning of the students for they can interact with other language learners through leaderboards. However, acquisition of the language may vary from one student to another as their learning depends on the duration of using the application.

### **Challenges**

As researchers argue that through the use of Duolingo application the English language acquisition increases into a more enjoyable, interesting, and easier process. However, at the same time, researchers discovered some challenges both students and teachers might encounter in using Duolingo. These challenges are as follows:

#### ***Unavailability of Devices***

Today's education is situated in a modern world and the ideal perspective is that each student or teacher will have a mobile phone device to be used in the teaching and learning process, but that is not the real scenario. Students with rich or average wealth backgrounds might be able to own mobile phones, but not the poor ones. Ali & Deris (2019) added that possession of the phones may be a problem in poor developing countries since not all people, especially young people, have access to mobile phones. Nonetheless, this perspective cannot be generalized since the unavailability of the devices might be also occurring in the developed countries especially applicable to rural areas. In order to lessen this problem, support from the government must be given. More fund allotment to technological education might help.

#### ***Internet Access***

Aside from the unavailability of the devices, internet access is needed to use Duolingo. Not all students have Wireless Fidelity (WiFi) at their own homes and needed to buy data in order to use the application. This might be a burden to poor families who have no allotted money to purchase. Schools might help students to solve this problem by providing them free WiFi in school zones.



### ***Students' Behavior While Using Phones***

Sometimes there are schools that prohibit their students to carry and use mobile phones in the classroom for they perceive it as a distraction in the learning process. This might be the scenario if mobile phones will be allowed to be used in the classroom, students might just use them for other purposes than learning. Hockly (2012) reported that using mobile applications in classroom settings can lead to loss of teacher's authority in the class and it becomes an issue of great concern.

Teachers must be strict in implementing the use of mobile phones. They must set rules that students must follow in order to maintain good classroom management while effectively learning the English language.

### ***Activity Problems in Duolingo***

Duolingo activities accommodate vocabulary, grammar, translation, and the four language skills – reading, writing, listening, and speaking. These activities enrich the students' English language acquisition; however, students might find difficulties when there are unnatural sentences, lack of grammar guide, weak translations, pronunciation errors, and annoying advertisements present while using the application.

Duolingo forums open to the users to communicate regarding their experiences in Duolingo. One user claimed that there are unnatural sentences present when she was learning English from Spanish.

Duolingo: Spanish to English

1. Esta ciudad tiene dos aeropuertos. (This city has two airports.)
2. Este pueblo no tiene una piscina. (This town doesn't have a swimming pool.)
3. Esta ensalada tiene tomates. (This salad has tomatoes.)

Considered Natural Translations

1. This city has two airports. - There are two airports in this city.
2. This town doesn't have a swimming pool. - There is no swimming pool in this town.
3. This salad has tomatoes. - There are tomatoes in this salad.

*Ibid (Duolingo Forum, 2019)*

Considering that the grammar is correct but the sentences sound unnatural then it confuses the English language learners. The weak translation is also applicable in this set of examples.

Grammar rules in English language learning are very important but Duolingo has no grammar guide for the learners. Grammar tells you how to combine words, phrases, and even things like word endings so that you can understand those around you, and so you can be understood yourself (Onstwedder & Harb, 2020). The application only implicitly teaches grammar by repetitive activities and same sentence construction; hence students' correct grammar exposure is limited.

Pronunciation errors are also present while using the Duolingo application. However, based on the Duolingo forum it mostly occurs in languages with distinct similar sounds like French, Italian, and Arabic. The Duolingo pronunciation of "*parce que*" is par-ce-que, as though it

has 3 very distinct syllables. One does not usually hear it pronounced that way in conversational French (Duolingo User).

Pop-up advertisements are very common to free applications and Duolingo's free version has it too. Students see these advertisements as a distraction in their learning and lose their focus to go further.

Duolingo company or management must take into account these activity problems to ensure accurate learning of the languages. The Duolingo team must incorporate more grammatical rules and activities to be explored by the students, thus they will know how to construct correct sentences. The company must also reverify the correct pronunciation of the words so the language learners will not face problems in practicing or applying their learned words into conversational and authentic situations.

## **Conclusion**

The importance of learning the English language is increasing as it is viewed as the world's lingua franca. Through the globalization of education, students are more exposed to international relationships and connections. These connections can only be successful if both sides can effectively communicate in the global language, which is English. Whether people have their own native languages, as long as they can speak English, they could build strong communications and connections. Alongside this fact, education sectors are always searching for effective ways on how to teach English to the students without them getting bored or burdened. 21st-century education answered this quest as they promote the use of information and communication technology (ICT) in the classroom setting. Through the years, the transition from conventional teaching like using blackboards, chalks, visual aids, and bulletins to technology-based teaching – PowerPoint presentations, smartboards, internet, and videos is very evident. However, one of the most used ways of acquiring the English language nowadays is the use of language acquisition applications like Duolingo. Mobile-based language learning has a good impact on teaching the language as it promotes easy access to information and mobility. Students who have this application can learn the target language at anytime, anywhere with the use of the internet.

Its effectivity is visible as researches conducted supports the effectiveness of the Duolingo application as it enhances mostly the vocabulary of the students. The students have a positive perception of the use of Duolingo in the aspect of usability, context, control, connectivity, mobility, blending, content, technical support, and cost (Pramesti & Susanti, 2020). However, this application also has many challenges to solve to reach its full potential as a tool to promote full independent language learning. This paper also gives some solutions to lessen these problems like financial support from the government, implementation of Wi-Fi zones in schools, and verification of Duolingo activities.

This paper concludes that Duolingo is not enough to accommodate full English language learning. Teachers and students can only use this application as a supplementary tool in acquiring vocabulary words but not a whole basis of English learning. In addition, Duolingo only promotes Basic English and does not elaborate on the languages' linguistic systems.

All in all, the Duolingo application might be helpful with proper support and correction of the teachers. Nonetheless, as the Duolingo application upgrades its features, further research

shall be conducted to learn whether these upgrades now can accommodate full English Language learning effectively.

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