

**The Use of Duolingo App as A Tool to Support English Learning Practice in Virtual Classes
During the Covid-19 Pandemic**

A Research Project

Licenciatura en Lenguas Extranjeras con énfasis en inglés

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Specialized Analytical Summary

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| Title | The Use of Duolingo App as A Tool to Support English Learning Practice in Virtual Classes During the Covid-19 Pandemic |
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| Keywords | Digital tools, Duolingo, learning, English, Covid-19 Pandemic. |
| Description | Research Project |
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| Contents | <p>Este proyecto tiene como objetivo generar en los profesores el interés por el uso de los recursos virtuales como una forma de aumentar el proceso de enseñanza-aprendizaje frente a la pandemia vivida. Ayudarles a reconocer la importancia de la implementación de Duolingo para reforzar la habilidad de los estudiantes en el aprendizaje de un segundo idioma en consonancia con las recientes plataformas; mostrándoles los beneficios de este sitio web. las TIC han ido evolucionando para garantizar tanto a los profesores como a los alumnos una forma diferente de aprender. Así, al final de este proyecto, los profesores serán capaces de identificar la importancia de su aplicación y de cómo esta mejorará las diferentes habilidades de los estudiantes mientras practican y aprenden usando imágenes, audios e incluso consejos</p> |

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| | <p>gramaticales mientras aprenden desde casa y repasan los temas que el profesor ha enseñado a través de grupos de WhatsApp o por hojas de trabajo hasta el momento. Además, concientizar a los profesores sobre el impacto positivo de las TIC en las herramientas educativas y cómo las TIC tienen un impacto directo o indirecto en lo que nuestra sociedad está viviendo hoy en día; también para darse cuenta de que las plataformas dan a los estudiantes la oportunidad de aprender mediante el uso de diferentes enfoques metodológicos y pedagógicos.</p> |
| <p>Research Line</p> | <p>The line of research used is "Bilingualism in technology-mediated distance education". This work is based on the literature review and analysis of different researches developed and applied by different researchers about the use of Duolingo application in order of practicing students' vocabulary acquisition, to present the best strategies and advantages of this tool which make this process more effective in teaching process of English language. Besides, ICT provided a wide range referred to the self-learning in which learners are mainly responsible for the interest in investigating and applying knowledge according to their necessities using different strategies and innovating the processes; for this reason, the project aimed to increment the use ICT as an alternative way of getting the second language.</p> |
| <p>Conclusions</p> | <p>Una vez realizado el estudio sobre la aplicación Duolingo como estrategia de apoyo en las clases de inglés durante la pandemia se obtuvieron resultados positivos con los estudiantes de la escuela La Gloria, donde se evidencio la satisfacción de los alumnos al practicar vocabulario desde casa</p> |

| | |
|---------|--|
| | gratuitamente desde la app, lo que permitió aumentar las habilidades de escritura, gramática y escucha de una segunda lengua como lo es el inglés. |
| Advisor | Edner Suárez Alomia |

Abstract

This project aims to generate in teachers the interest of using and implementing of virtual resources as a way to enhance the teaching-learning processes in the current Covid-19 pandemic experience. To help them recognize the importance of implementing Duolingo to reinforce the ability of most students to learn a second language having in mind the implementation of recent platforms; showing them the benefits of these websites.

ICT has been evolving to guarantee both teachers and students a different way of learning and also to take advantages of different gadgets to increase the vocabulary in any language intended to be learnt. Thus, at the end of this project, teachers will be able to identify the importance of Duolingo app and how it will enhance the different skills of students as they keep the track of practicing and learning while using images, audios and even grammar tips, reviewing the topics that the teachers have taught them through WhatsApp groups or by worksheets so far. Also, to make teachers aware of the positive impact of ICT in educational tools and how ICT has a direct or indirect impact on what our society is living today; also, to realize that platforms give students the opportunity to learn by using different methodological and pedagogical approaches.

Key Words: Digital tools, Duolingo, learning, English, Covid-19 Pandemic.

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Introduction

ICTs (Information and Communication Technologies) are technological tools which have permitted education to have a surprisingly advance and even help the teaching and learning processes to be more efficient, didactic and innovative. According to Chatterjee (2021), ICT in education serves and assists people with the education process, providing sophisticated tools, techniques and methods for interactive learning, to present and demonstrate their lessons effectively and efficiently. This is why teachers should implement different technological and educational tools that help improve students' skills and abilities.

Many applications that emerged in recent years have become tools that contribute to the learning process, one of them is Duolingo. It is an app that encourages students to learn a language, it allows students to learn while they play, acquire vocabulary and constantly review their knowledge during the learning process inside and outside the classroom. According to Nushi and Eqbali (2017), Duolingo offers personalized exercises for each learner, focusing on their weaknesses and improving their skills.

With this in mind, this project aimed to use the Duolingo app as a tool to support English learning practice in virtual classes of 5th graders during Covid-19. Within the transition to virtual education, in this case, the teacher assigned some worksheets to complete at home. Given this situation, and considering the importance of constant practice in the language learning process, it was noticed that the students would lack opportunities to use and practice the foreign language. Therefore, by using this app, learners were able to practice English anywhere and anytime.

They did not only review and practice the vocabulary studied but they could also develop language skills by working with different games and activities offered by the app.

Significance of the Study

It is worth highlighting the necessity to improve the teaching of English in Colombian public educational institutions. For instance, the number of hours for the English class is not always enough, besides, students sometimes lack additional resources to practice English inside and outside the classroom. Thus, it is important to propose new initiatives and strategies to address students' needs and give them the possibility to expand their language learning practice.

Hence, teachers can take advantage of the positive benefits offered by the use of technological tools available nowadays. One of these tools that allows students to practice English without being directly observed or being inside a classroom, is Duolingo. It is an app that has had a great impact on the process of learning a second language, allowing the student to create an autonomous learning, improving and strengthening the acquired knowledge. As Benson states (2015), this application promotes effective autonomous learning through motivation. Likewise, Duolingo provides a space in which students can interact with the teacher and also with other students worldwide. Additionally, the app has lessons that integrate conversation, vocabulary, speaking and listening activities which promote the development of different language skills (Syondavis, 2022).

Certainly, there are several benefits of learning a second language. For example, it allows students to have better job opportunities in the future. It is well known that speaking English opens doors, it is an essential language to achieve all kinds of professional and personal goals (Estal, 2019). With this in mind, this research offered an innovative tool to practice English and

supported students in their autonomous learning, considering that Duolingo keeps students motivated through fun challenges, making the practice of a second language more efficient (Blanco, 2020).

While I assisted a teacher of English at La Gloria school, I offered teaching support in the classroom. Accordingly, I observed the need of providing fifth graders additional and meaningful spaces to practice English and reinforce their language skills. In this line, I considered the Duolingo app, a good alternative for students to practice English as part of their class activities, in response to the need of incorporating strategies and methodologies during the transition to virtual education due to Covid-19 pandemic. By practicing English with the Duolingo app, students were motivated to reinforce their language skills in a dynamic environment, different from the usual teaching class.

Statement of the Problem

The learning process is nowadays related to the implementation of didactic tools which are very important and necessary in the academic development of students. However, there was a sudden shift from face-to-face education to online and distance learning due to Covid-19 pandemic. According to CEPAL (2020), by mid-May 2020, more than 1.2 billion students at all levels of education around the world had stopped having face-to-face classes due to school closures during Covid-19. The forced transition towards virtual education was an event that many teachers were not prepared for and it led to some consequences for students' learning.

Given this situation, teachers from La Gloria school did not have the adequate skills or training to use technological tools in the virtual teaching-learning environments. In particular, the modality used to continue the learning process was closely related to distance education; students

did not have synchronous classes. The teachers designed worksheets to be completed by students and submitted, in most cases, via WhatsApp.

Consequently, while assisting a teacher of English in La Gloria school, I observed the difficulties students were facing as they had to study alone at home or supported by their parents and most of them were uneducated, which increased weaknesses in the process of learning English. Besides, the lack of interest in learning English that was also observed in some students before the pandemic could increase during this period and it could affect student development of language skills. As mentioned above, the teachers did not use pertinent methodologies to promote meaningful learning and opportunities to continue practicing the foreign language through the use of online tools and strategies.

After observing and analyzing the situation, I proposed to implement the Duolingo app to practice English. In this way, students were able to practice what they have studied, including new words and new vocabulary through this app. As a teacher in charge of this learning experience, I assigned students units or lessons to be completed on Duolingo, however, this practice was performed without the presence of a teacher, which allowed students to increase their interest and motivation to learn a foreign language. Another key point is that students could practice listening, writing and reading skills anytime and anywhere.

Thus, this research project was focused on the need to improve the tools and strategies used for English language teaching and learning to provide students the opportunity to practice English during the pandemic. With this in mind, the following research question and Presents the Duolingo app to students to teach them how to access, use and show the different activities it contains, such as sentence builder, units, games and stories.

were formulated: How can the use of Duolingo app support fifth graders' English practice in their virtualclasses during Covid-19 pandemic?

Objectives

General Objective

Implement Duolingo as a support strategy for the English language practice of fifth grade students at La Gloria school in Ocaña in virtual classes during the Covid-19 pandemic.

Specific Objectives

To identify to what extent students, use Duolingo app to practice English, as part of their virtual classes during Covid-19 pandemic.

To examine the use of Duolingo app as an educational resource to practice English outside the classroom.

To explore students' perceptions regarding their experience using the Duolingo app to practice English.

Literature Review

Education is a fundamental area in people's lives, since it allows them to acquire knowledge on various topics, hence, it is relevant to implement new methods and tools that improve the learning process. In 2020, there was an unexpected turn in the teaching methodologies, transitioning from face-to-face education to virtual learning environments, a situation that pushed institutions to design online teaching and learning strategies. Thus, this chapter reviews significant insights on ICT in education, Duolingo app and the impact of Covid-19 on education. Additionally, it presents some research studies related to the topic of this project.

ICT in Education

Technologies have allowed education to be more efficient and effective, being a tool that facilitates the creation of useful material to be used in the classroom. UNESCO (2021) states that Information and Communication Technology (ICT) provides possibilities to transform and enrich education, it can also improve the quality and relevance of learning and support teacher development as well. Thus, technology becomes an instrument used by teachers to motivate students to work either alone or in groups, promoting learner autonomy and collaborative learning while using ICT tools as part of the learning and teaching processes.

In consequence, technologies can also support students' learning process when they use these tools to expand language skills and vocabulary of the English language. However, the effectiveness of using ICT does not only cover language aspects, but it can also affect certain factors in language acquisition; with this regard, Cigdemoglu and Akay (2016) claim that these technologies promote self-learning and increase students' motivation, self-confidence and self-

esteem. In essence, technologies can play a significant role in language teaching and learning by facilitating students' practice and progress in their own learning process.

It is worth mentioning that ICT has greatly/notably contributed to the process of teaching and learning in today's education. By using technological tools and materials, students can learn at their own pace, through various activities that let them advance and achieve the class objectives. According to Navarro (2021), technologies are very helpful digital resources for collaborative work inside and outside the classroom, giving students and teachers the possibility to develop tasks jointly in real time, which also establishes a connection between them during the process. In the same manner, technologies let students have some flexibility when they have to study online because they are able to log in and practice anytime according to their schedule and language needs. By and large, teaching and learning are transitioning from traditional methodologies to new learning environments that are provided by the use of ICT tools.

Duolingo app

Apps have evolved as time has progressed, which has allowed people's lives to become easier and more efficient as they have become tools and gadgets that help individuals in many daily tasks and educational activities. In terms of learning and teaching, apps offer people the facility of studying everywhere, becoming a useful and practical tool to teach learners and expand education possibilities of students in remote locations with internet access. According to Utami (2020), applications support the learning process, making it more interesting and practical since they generate a different environment in which the student feels comfortable and motivated

to learn. In general, technologies have improved the strategies and tools used in the teaching process in the last years all over the world.

Consequently, students can use applications that help them practice and improve their skills in a second language, since today there is a variety of applications that facilitate students to learn. As Pampillon (2012) states, apps have transformed much of the traditional teaching spaces into virtual classrooms, supporting students in virtual learning environments. In the same way, students can attend virtually and practice a specific topic or vocabulary previously chosen by the teacher in the app. In addition, students can learn without a teacher and become autonomous by using applications that help them improve their listening, writing, and even speaking skills, as there are apps where students can interact with people from all over the world.

Created by Luis von Ahn and Severin Hacker and launched on November 30, 2011, Duolingo is an app that offers the opportunity to learn different languages. Users can learn languages completely free, however, it also has a premium subscription named Duolingo Plus. It is based on a model that integrates language skills; the courses include reading, writing, speaking, listening, grammar and vocabulary within a context in an indirect way. Smale (2020) states that Duolingo is the most popular language learning application in the world, with more than 300 million users worldwide.

Duolingo is an application that interacts directly with students and offers a variety of topics and levels that helps users to enrich vocabulary, improving their skills and becoming a didactic tool to practice English. With an attractive and user-friendly interface, Duolingo has some key characteristics to make the learning experience interactive and fun. First, as Patricia (2022) states, Duolingo is a playful application, which allows learning vocabulary through different games and fun activities, the lessons have a fluid development, and the application is

intuitive, accessible and adapted for beginners. Gónzales (2021) also notes that it uses sight to impact students' curiosity throughout images and interactive games and remarks that it uses audiovisual material, helping students to develop listening skills while they get new vocabulary throughout the pictures as well, which can motivate students to practice and become more involved in the learning process.

There are several studies about the use of Duolingo as part of the development of different language learning experiences. For example, Becerra et al. (2020) conducted a research project to analyze the use of Duolingo as a support tool in an A1 English course at a public university in Ecuador. Findings reported student satisfaction with using Duolingo; 73.32% of students surveyed found Duolingo easy to use and 76.7% enjoyed the different tasks of this application during their learning process. All in all, Duolingo is an easy and fun app that allows students to enjoy learning a foreign language and teachers can incorporate this tool into their EFL courses.

In addition, Duolingo is a technological tool that allows the creation of virtual classrooms, the teacher can assign lessons according to the topics that have been studied in class. Students are informed via email about those assignments and teachers can track students' submissions. Also, the platform offers a big quantity of exercises that helps students to enrich vocabulary and language skills as they make progress on their work. Duolingo facilitates the access in an easy way; it also provides a space for both students and teachers to interact with other Duolingo users regarding any doubts related to grammar and language use.

It is worth mentioning the research conducted by Borja (2018), in his study about the relationship between the use of Duolingo and vocabulary acquisition in a group of secondary

school students in Ecuador. A pre -test and a post- test were applied, both taken from the Duolingo website. Pre-test results showed that most students had a basic knowledge of English, then, after using Duolingo, 56.7% of students reached an intermediate level on the post-test, which suggests that students increased their knowledge as they used Duolingo to improve their English acquisition process.

As for the implementation of Duolingo in the Colombian context, Duran (2020), conducted a research project about its use as a pedagogical strategy to strengthen English language learning with 10th graders at a public school. An initial survey about student satisfaction revealed specific class activities students found interesting; games and virtual activities (31.82%) reading and writing (25%), and videos and audios (25%), additionally, 38.64% of the students believed that they learned best by playing and practicing, while 29.55 said it was by using videos and audios. These results suggested that it was pertinent to work with Duolingo in order to promote student autonomy and motivation. A final satisfaction survey showed that 67% of the students considered that they had made sufficient progress on the learning process during the implementation of Duolingo. All in all, the variety of Duolingo activities support the acquisition of knowledge and allows students to expand their skills and vocabulary.

In conclusion, Duolingo app is an innovative tool that can promote vocabulary learning and enrich the knowledge of the English language, as evidenced in the previous research experiences. Equally important, this literature review also considers the pertinence of using Duolingo to improve students' English practice during the Covid-19 pandemic.

Impact of Covid-19 on education

During the last three years the world has faced Covid-19, an infectious disease caused by SARS-CoV-2 coronavirus which causes shortness of breath or dyspnea, loss of mobility or speech, chest pain, loss of taste or smell among others. This disease is transmitted from person to person by contact with respiratory droplets of sick people, thus, the rapid spread of the virus caused the declaration of pandemic by the World Health Organization on March 11, 2020, Ortiz et al (2020). Hence, countries were forced to carry out mandatory quarantine to prevent the spread of this virus.

Consequently, Colombia was affected by the Covid-19 pandemic as well, causing a crisis in the educational system, because it was not prepared to face this health emergency that resulted in the massive closure of face-to-face activities in educational institutions. Eslava (2021) states the quarantine caused a general state of alarm, closing schools, implementing distance education, generating consequences in the cognitive, emotional and behavioral processes of people and especially in young people and children, causing an increase in dropout and school repetition rates and deepened the gaps in academic performance. In general, the epidemic caused education to take an unexpected turn in the teaching process, which led to the implementation of new alternatives to help students learn.

It is also worth mentioning the significant role technologies played during the lockdown period, supporting teachers to design learning resources and deliver online lessons, allowing the development of new teaching methods facilitating adaptability, flexibility and teacher-student communication. Christopoulos and Sprangers (2021) note that technologies were approaches to design learning environments with multiple lessons and exercises that aligned with the curriculum and learners' needs. According to Sampaiolessi (2021), the Covid-19 pandemic

demonstrated the need to incorporate technology in education; these tools can be provided through didactic resources, interactive platforms or virtual classrooms. Certainly, ICT assisted teachers in lesson preparation, content delivery, knowledge assessment, dissemination of concerns, and tracking of students' progress during the pandemic.

Undoubtedly, learning was severely affected by the pandemic and education in Colombia was not far from facing this crisis as well; a situation that allowed teachers to develop new learning strategies and methodologies to provide distance education during the pandemic. Castañeda and Jaime (2021) conducted a case study to explore the challenges faced by Colombian EFL teachers at a public university and the pedagogical strategies they used during lockdown. Teachers implemented WhatsApp and Facebook, and also used synchronous and asynchronous tools, such as virtual classrooms, emails, videoconferences, forums, blogs, Google documents, and meeting rooms. Some difficulties presented in virtual classes were: interruption by various situations that occurred at home, no equipment and failures on internet connection, and economic and psychological instability of most students. In general, teachers faced great challenges but they designed strategies to continue teaching and learning processes, avoiding student disinterest and academic desertion.

In general, technologies and digital platforms played a crucial role during the lockdown period, they permitted educational institutions to continue their academic processes and facilitated the transition to virtual education. As noted above, the Covid-19 pandemic has had a great impact on education, prompting many foreign language teachers to design pedagogical strategies to deliver virtual lessons and support students' learning process while they were at home. On the whole, the pandemic provided a different learning environment through virtual education allowing individuals to learn by using new strategies and tools.

Methodology

The study that was carried out is; exploratory research type, since it allowed to increase the knowledge of a topic which has not been studied very closely and establishes a general vision of the subject. Ortiz (2019) states, exploratory research allows us to know the implications of the problem. Besides, the studied object and the magnitude of the problem are clarified, even the elements involved and the most important targets to be studied are determined.

Also, this project belongs to the qualitative approach, as this project is not only limited to data collection and analysis of the possible found problem but also to provide a tool that contributes to the process of practicing vocabulary while learning a second language, as Arias (2022) affirms, qualitative research is used to analyze non-numerical data, in order to obtain an exploratory approach from the object of study. In general, a detailed analysis is obtained through the collection, evaluation and tabulation of the information obtained. Besides, we use a survey to know the level of satisfaction in the fifth graders students with the use of Duolingo app during the implementation of the project.

Population and Sample

This project focused on using Duolingo as a support tool in the practice of the English language in virtual classes during the COVID-19 pandemic, where 17 fifth grade students from the La Gloria school were taken into account. The age range is between 10 and 12 years old, belonging to socioeconomic level 1 and 2, the type of family are mothers head of household and compound families, which were located in El Dorado and Santa Clara neighborhoods, located in the urban area of the municipality of Ocaña Norte de Santander.

The sample will include 17 students in the fifth grade of primary school at the Francisco Fernández de Contreras Educational Institution headquarters, La Gloria Primary school.

Procedures

Table 1

Phases

| Phases | Objectives | Activities |
|----------------|---|---|
| Phase 1 | Presents the Duolingo app to students to teach them how to access, use and show the different activities it contains, such as sentence builder, units, games and stories. | Direct observation Interaction with students Explanation of the processes and use of the Duolingo app. |
| Phase 2 | Use and implement Duolingo app as a supportive tool for English language practice in virtual classes. | Implementation of the Duolingo app. Recording of activities in the field diary provided by the Duolingo app. Collection of information. |
| Phase 3 | To evaluate the contribution of the Duolingo app, through the use of the survey that allows the assessment of its implementation. | Student were surveyed to find out their satisfaction with the implementation of Duolingo in English language practice. Analysis of the results Conclusions and recommendations. |

Note: phases that were carried out to provide a solution to the research project.

Data Collection

Instruments

In order to learn about the performance of students in the Duolingo app for English language practice, the following instruments were used to collect information.

Survey: a survey was used to obtain information on the interest and level of satisfaction during the practice of the English language after the implementation of Duolingo app as a supportive tool for English language learning (Annex 1), in order to obtain arguments that ratify the information provided.

The survey was applied physically with the students in the classroom, which allowed us to know their different perceptions about the app and even let us to interact with the students to gather extra information.

Duolingo Report: It is a short analysis provided by Duolingo app to know the activities that students performed daily in each unit and the time they invested in practicing English, as Duolingo is a tool that provides and shares a detailed record and control of each unit developed by the users.

Data Analysis Techniques

With the purpose of analyzing the data obtained through the collecting instruments, we continue to describe and summarize the information and even identify the variables for the case study. The research is framed within the exploratory type and the following techniques were applied: assessment of the app by WhatsApp, observation of progress from the application and list of students.

Finally, with the information collected, we proceeded to analyze the data obtained from the students and for which statistical figures were used in systematized programs such as Excel and Word, which allowed us to obtain a better analysis of the information provided.

Results and Discussion

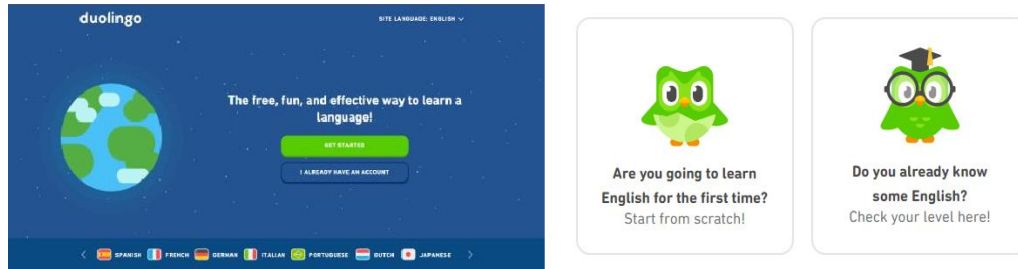
What Extent Students, Use Duolingo app to Practice English, as Part of their Virtual Classes During Covid-19 Pandemic

Duolingo is an interactive application that permits children, youth and adults to practice vocabulary while playing, since it is a practical, enjoyable, interesting, and easy app to use anywhere and anytime. Alejandro (2019) states, it is a complementary resource that helps to practice a second language, due to the fact that it has various exercises that allow students to practice vocabulary through sentences, stories, audios and images. Therefore, this chapter reviews the most important idea about the use of the Duolingo app by fifth grade students. In addition, the process that the students carried out in the app during the process and even the results or performance can be obtained or revised by the teacher.

Implementation: Students performed a series of activities in the Duolingo app, which allowed them to review the vocabulary, pronunciation, listening and grammatical structures of each sentence in most of the activities they did. Also, it should be highlighted that each student previously created an account in the application and then took a placement test that the platform contains offered to start the trip in the app, this provides a result that place students in a certain level to start from, and once there they can continue advancing as they keep completing the activities of every unit.

Duolingo is conformed of different modules which are integrated by units, in where the skills of listening, speaking, reading and writing can be practiced. Besides, the application is well organized, as if a student completes the modules, then next units are enabled to study and thus advance to the next level.

Figure 1
Duolingo

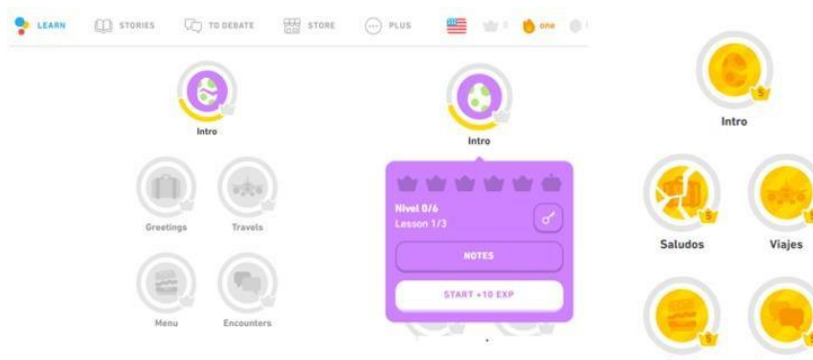


Taken from: (Duolingo)

As shown in Figure 1, the user already is in the Duolingo app, where anyone can practice the languages, the app offers and they want to learn, since the app has no an age restriction and its interface is dynamic. To start users, have to register, this is done with the objective of keeping track and an order of the units studied by users, since Duolingo saves the information and generates reports of the modules studied, also enables more units for the student to continue practicing new topics. On the other hand, the app permits practicing a second language without creating an account, however, the practiced units are closed once the student exits the app, so the students cannot save their tracks, precluding them to advance to the next modules and units, which generates the loss of the enabled lessons. In general, it is important to create a user in the app to maintain an order and keep on advancing in the practice of the English language without losing what has been studied.

Below you are able to observe some of the first units that students or users have to practice in the Duolingo app.

Figure 2
Duolingo Lessons



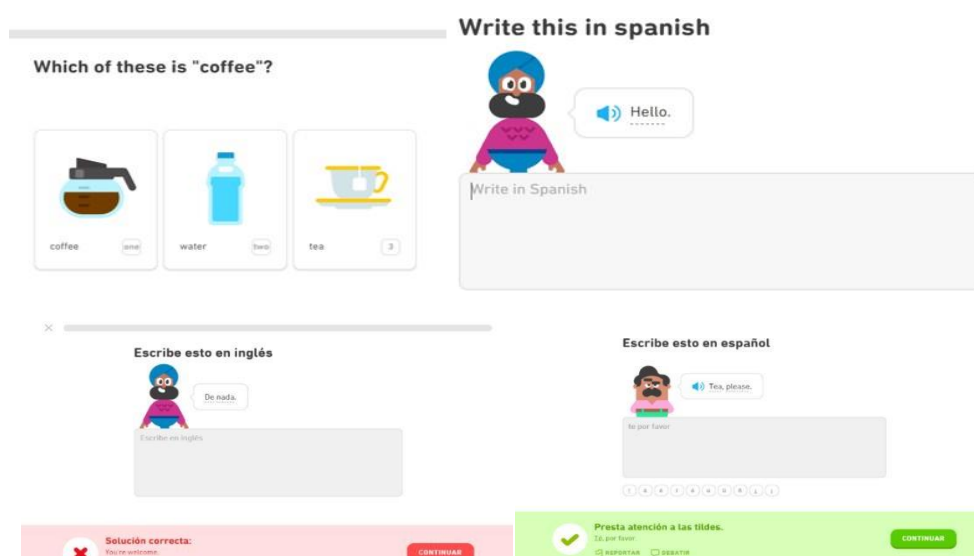
Taken from: (Duolingo)

As you can see Duolingo presents a series of units with different topics that the student must complete to continue to the next level, each unit is represented by a circle that when users open it, contains several lessons of the same topic, this circle changes its color when the student practices lessons, this mean, it is gray when it is not enabled, also the circle changes to various colors such as: red, blue or green depending on how much the student has practiced. Finally, it changes to gold when the student has completed all the lessons, indicating that he/she can move on to the next unit for further study. It is important to note that the gold color of a unit will change if Duolingo detects that the student needs to review a topic again because he/she has forgotten words or because he/she has not practiced for a long time. Indeed, it is necessary to constantly review and complete units to enable more levels, learn more vocabulary and practice grammatical sentence structure.

Duolingo is an alternative tool, which has been created thanks to the advancement of some technologies, and has demonstrated to be an efficient application that contributes to the practice of the English language. According to Bello (2021) affirms that applications have become a great tool for learning a second language, as they are fast, easy to access and fun, one of the most popular applications to practice a second language is Duolingo, as it contains

efficient material that contributes to the acquisition and practice of vocabulary. In general, this application lets to practice English through audios, sentence construction and images that enrich the student's vocabulary, as evidenced below Duolingo provides interactive exercises that motivate the student to practice English.

Figure 3
Exercises in Duolingo



Taken from: (Duolingo)

The Duolingo interface permits students and users to practice skills such as listening, where they must write what they hear, they must construct sentences taking into account the tenses and select the correct image according to the verb or word that is in the image. Likewise, Duolingo has a section of stories in which the student must listen in English to complete the sentence of the story, they must also join the word with the correct image, they must translate sentences and finally pronounce the phrases or sentences suggested by the app. It should be noted that once the student is performing a sentence if he does well, the success notification appears allowing him to advance to the next exercise, also if the student makes a mistake the error notification appears, offering the option to correct with the aim of reinforcing the word

studied, At the end of the lesson the app gives the student points for his participation and his performance graph increases every day that the student practices, as seen below.

Figure 4

Lesson completed in Duolingo.



Taken from: (Duolingo)

As the student practices daily in the app, Duolingo provides reports of their daily progress and the position they reach against other people, the app sends notifications to the cell phone so that the student does not stop practicing and can study the units and lessons of each level, in this way the student achieves progress in the acquisition of vocabulary of a second language. As shown in Figure 4, the student who completes the lesson of each unit gets a reward (coins), which are used to buy lives or books provided by the same app, Duolingo provides 5 daily lives to practice, every time the student loses a sentence he loses a life, if he loses all the lives he must buy with the coins earned, if he does not have coins he must review the previous units so that the application gives him new lives where the user can keep on practicing, the more units he studies the more lives he can collect and the more levels he is able to practice.

The following is the student profile in the app where you can see the prizes and rewards that students get for practicing.

Figure 5
Student Profile

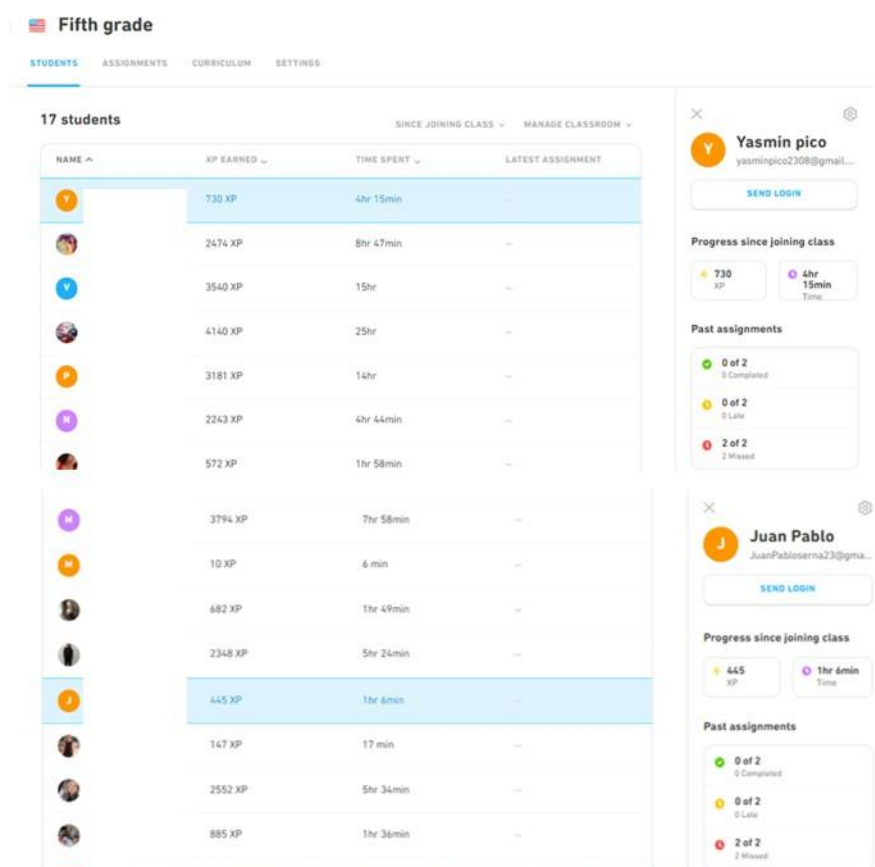


Taken from: (Duolingo)

Duolingo has a space where the achievements and rewards that the student has in the app are displayed, it allows to show the time, days and rewards obtained by studying, also the app has a virtual classroom where the student can interact with other learners from different parts of the world and allows to invite new people to practice together. Duolingo has a section of audio stories for the student to practice listening skills, these books are purchased with the coins obtained from each unit, according to the intensity with which the student practices Duolingo places the student in a division and currently there are 10 which are: Bronze, Silver, Gold, Sapphire, Ruby, Emerald, Amethyst, Pearl, Obsidian and Diamond, these divisions allow the student to earn more rewards in each unit, which can be used in the store to buy items in the app, which help the student open new lessons with new topics. Overall, Duolingo is an app that provides vocabulary, many words and phrases for second language acquisition, this helps the student to have good material to practice daily.

Once the Duolingo application was implemented in the fifth-grade students of La Gloria School, the following reports were obtained.

Figure 6
Student on Duolingo



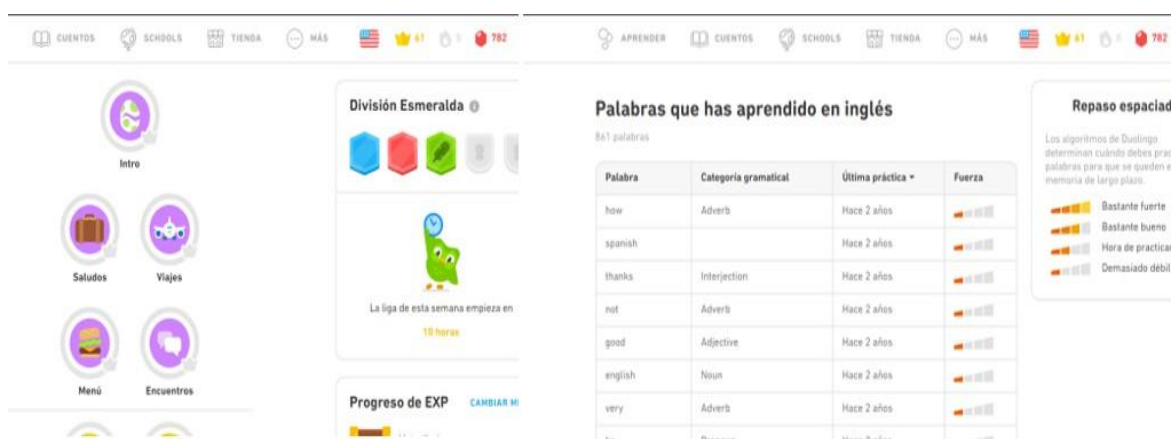
Taken from: (Duolingo)

At first, Duolingo was introduced to the students with the objective of reinforcing the topics seen in the guides that the teacher had delivered, the students voluntarily downloaded the Duolingo app on their iPads, tablets or phones, the app was used only to practice about English language vocabulary. The students were taught how they could use the Duolingo app by the teacher, since it offers a dynamic interface which makes the adaptation process easier because it explains the correct way to solve the lessons, the app also provides short exercises that increase in difficulty each time the student advances in level, in this way the app uses a word in different contexts to use the mandatory skills that are needed to learn a second language such as reading, writing and listening. This was done via WhatsApp where any type of question was answered. In

this way, students were motivated and even encouraged to practice in order to achieve a good performance in learning English as a second language. In general, this activity was carried out with the students for two months, time in which the students developed the lessons according to the time available at home since this activity was carried out during the pandemic.

According to the reports provided by Duolingo, students practiced several units and learned new words as evidenced below.

Figure 7
Students practicing



Taken from: (Duolingo)

As shown in Figure 8, the students practiced in the Duolingo app various units and lessons, which shows the amount of time the students spent to practice English, if the student presented weakness in any word its density was weak, this is because the student did not remember the word when it appeared in a sentence, when the density is quite strong is because the student always remembered the word and did not make a mistake, this report allows the student to know the weaknesses presented, with the aim of improving and strengthening their vocabulary.

The following is a list of the topics studied by students in the Duolingo application.

Table 2
Duolingo topics and lessons

| Content | Session | Assessment Standard | Topic | Achievement |
|--|----------------|--|--|---|
| Greetings and farewells with pictures | 1 | Write greetings and farewells within the daily context, related to the image of the student's experience. | Greetings and farewells at times of the day, and positioning of himself in his own environment | Recognize different greetings throughout the day, through auditory and visual skills. |
| Foods | 2 | Write and describe the foods that are usually consumed, using the image or audio as a reference. | Identify and write down the different foods consumed daily. | Recognize the spelling of some words with their respective pronunciations. |

| | | | | |
|--|---|---|---|--|
| First person conjugation starting with the verb to-be in the present simple tense | 3 | Uses of the verb to-be in short affirmative, negative and interrogative sentences in the present simple tense using the Student's Vocabulary. | First person verb to-be in the simple present tense. | To introduce oneself to others using the verb to-be. |
| vocabulary and third person. | 4 | Writing short affirmative, negative and interrogative sentences in the third person and present simple. | Third person verb to-be in the present simple tense. | Use the verb to be referring to one of the third persons singular. |
| Vocabulary and first-person plural in the present simple tense | 5 | Writing in short sentences plus first-person plural of with verb | First-person plural of the verb to be in the present simple tense | Use the verb to be referring to the first-person plural. |

| Vocabulary | 6 | Writing | Third | Use the verb |
|---------------------------|---|----------------------|-------------------|------------------------|
| and the third | | short sentences | person plural of | to be referring to the |
| person plural of | | third person plural | the verb to be in | third person plural. |
| the verb to-be in | | of the verb to be in | the present | |
| the present simple | | the simple present | simple tense. | |
| tense | | tense. | | |

Note: units practiced in the Duolingo app by fifth grade students.

As seen above, these were some of the units implemented and studied by fifth-grade students, the topics are simple, easy to understand and suitable for elementary school students, it should be noted that Duolingo is a tool that contributes to the constant practice of the English language inside and outside the classroom, generating an autonomous learning, reducing apathy and discouragement of the student to study a second language, Duolingo's interface is fun, creating that the student can practice while playing, build sentences with images, relate words and transcribe audios, this generates that the student is immersed in vocabulary that can relate to the environment, also the student can assemble short sentences with the vocabulary learned in the app. In general, each student had time to practice in the application and thus reinforce the topics seen in the cards provided by the teacher, this allowed the student to not easily forget the vocabulary learned, since the constant practice in the application generated that the student strengthens his listening, speaking and writing skills.

Students' perceptions regarding their experience using the Duolingo app to practice English

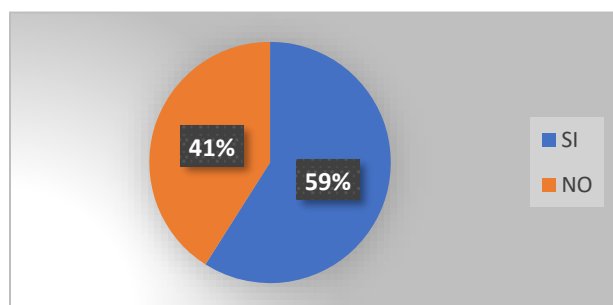
Studying in the Duolingo app allowed many students during the pandemic not to forget the vocabulary learned in class, the app was a very useful tool not only for teachers but also for students, as long as they keep a constant practice of the English language from home. The following are the results that conform the research, which reflect the study habits and the motivation of students to learn a second language, for this the survey was applied as an instrument to collect information, which consists of 10 questions and a descriptive analysis was performed, the survey was applied to students in fifth grade of primary school in the school La Gloria located in the municipality of Ocaña Norte de Santander. In this order, the results obtained and the analysis of each question of the survey are presented.

Knowledge of the Duolingo application

Duolingo is an application known and used by teachers to reinforce the vocabulary seen in class, with the objective of encouraging the student's autonomous learning, thus most of the fifth-grade students were already aware of the existence of the Duolingo app, as evidenced below.

Figure 8

Knowledge of the Duolingo application



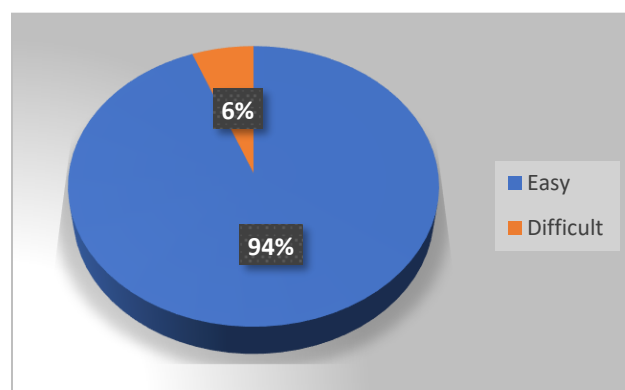
Taken from author of the project

As shown in Figure 10, 59% of the students already knew about the Duolingo application and some students had previously used it for English language practice, while 41% of the students had no knowledge or had not used it before, so it was innovative to use the app in classes to practice English, as Stainer (2021) says Duolingo is a tool with a wide variety of vocabulary that will be useful in an English conversation, the main advantage is that users can study from anywhere and in their free time, its interface is beautiful, eye-catching and sends notifications for the user to study daily. In general, it was found that more than half of the fifth-grade students had a bit of knowledge referent to the Duolingo app.

Duolingo interface

The Duolingo interface is easy and dynamic, which allows students to understand the exercises to be solved, as shown below:

Figure 9
Duolingo interface



Taken from author of the project

Using the Duolingo app is very fun, since its interface is easy to understand which generates that the student can solve the exercises without the need to have the presence of a

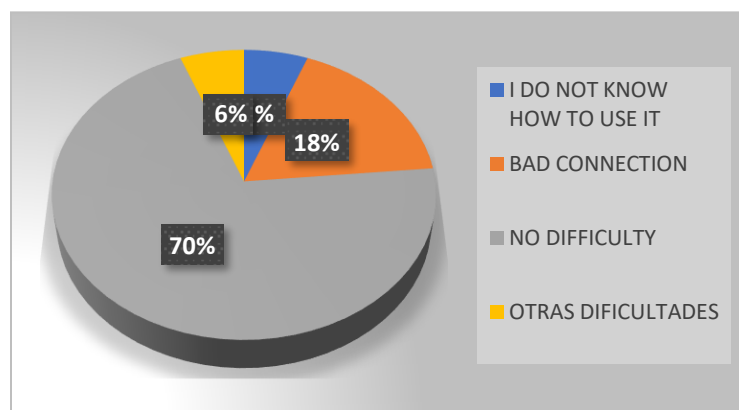
teacher, according to the results obtained 94% of students said that the app is easy to use and has a lot of dynamic content, such as images, audios and creative books with lots of vocabulary to practice, also 6% of respondents said they had difficulties because they did not have much knowledge about its use and it was the first time they used it, in addition it was something new that they were going to implement alone during the pandemic, although this was not a limitation for the student to practice on the app, in short the students stated that using Duolingo is very easy due to its dynamic interface, since it has various games and images to relate to the vocabulary, creating that the process of learning a second language is more dynamic.

Difficulties using the Duolingo application

Every time an application is used to practice or play, there are going to exist or appear some problems, either because of lack of knowing about how to use it, a bad connection or other difficulties. In this order, some of the difficulties that the students had when using Duolingo from home are presented below.

Figure 10

Difficulties when using the Duolingo application



Taken from author of the project

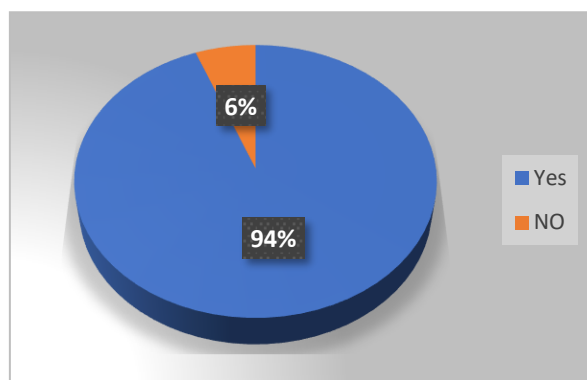
One of the biggest difficulties that arose during the pandemic was the speed and connectivity, this situation arose because all members of the household were using the Internet, so the signal was slow and inconsistent, which generated that the Internet did not work in an optimal state. As shown in Figure 12, 18% of the students had difficulties with the internet connection, a situation that occurred because they were all counted at home, which caused the internet speed to decrease, as Alday (2022.) states that some of the factors that limit the internet connection are distance, obstacles (walls, walls, doors) and the number of connected devices, which causes the internet speed to gradually decrease. In short, some students had problems using the app because of the speed of the internet, while 70% of respondents said they had no difficulties using the Duolingo application, this is because they had good technological tools and high-speed internet which allowed the student to practice without any problem.

It's funny to learn English through Duolingo App

Learning English with technological tools permits the student to be motivated and interested in continuing to practice, since the teaching method is different and innovative from the usual, which is why many students prefer to practice English through dynamic applications, as evidenced below.

Figure 11

It's funny to learn English through Duolingo App

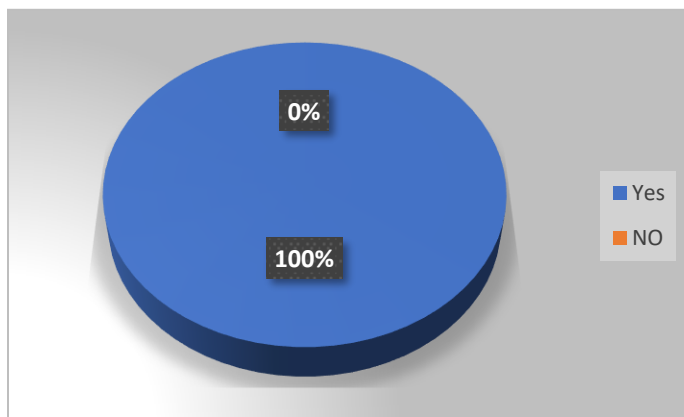


Taken from author of the project

Using technologies to learn a second language is different, dynamic and motivating, as it allows the student to be at the forefront of technologies and changes that occur in the world, which is why 94% of students claim to have studied Duolingo in a fun and interesting way, according to Duolingo (2011) The company's mission is to provide a free, fun and accessible education for everyone, the app is designed to make learning feel like a game. It is worth noting that learning a second language is a big enough challenge that many of the students are not interested in learning, as evidenced in Figure 13 6% of the students are not interested in learning a second language because they do not like it, but still performed the exercises that Duolingo provided.

➤ **Learning new words**

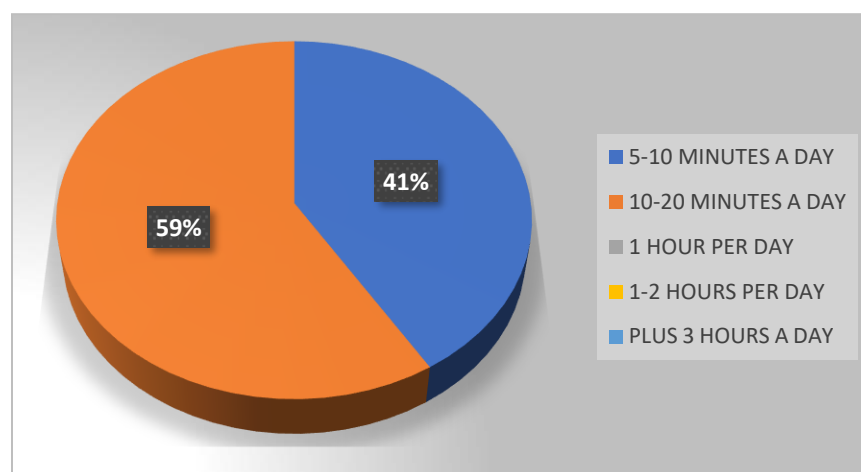
The way to learn a language is to know vocabulary because this allows the student to build sentences and can create sentences to start a conversation, for this the importance of learning new words in English every day and thus enriches the vocabulary, which is why students with the use of Duolingo learned new words and practiced them constantly as shown in Figure 14.

Figure 12*Learning new words**Taken from author of the project*

According to 100% of the students claim to have learned new words that helped them to enrich their vocabulary, managing to assemble sentences that relate to their environment, this is due to the constant practice of the words in the app, which generates that the student learns them so much to use them, since a word is implemented in several ways, in audios, images and relate the words. In general, this learning is only achieved with the commitment of each student, since it is necessary to practice daily to not forget what has been learned, which is why the effort and dedication allow the student to acquire new vocabulary and to be in constant practice of the English language.

➤ **Time spent learning English**

A daily practice allows the student to learn the words and permits them to be able to relate or associate the words easily in other environments and context, this is why it is important to keep a practice of English every day for a short period of time at requirement in order to constantly review and practice what they have learned.

Figure 13*Time spent learning English**Taken from author of the project*

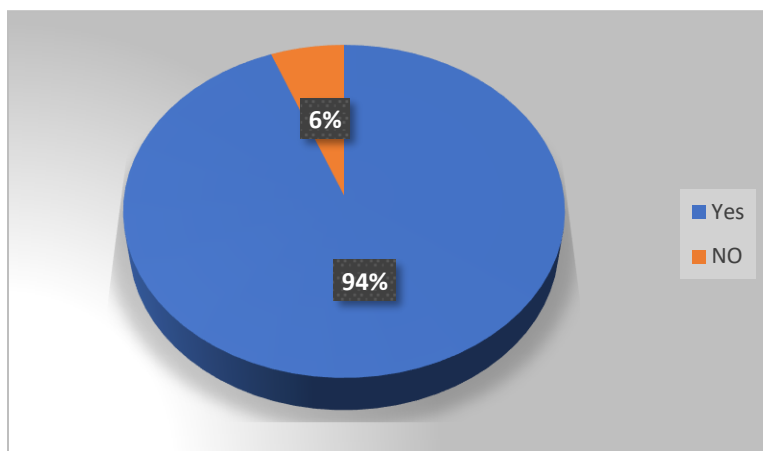
The more time a student invests in learning English, the more vocabulary she acquires and the more sentences she can construct, making sentences with ease and greater mastery of vocabulary. According to the survey, 59% of students spend between 10-20 minutes a day practicing English, while 41% of students only spend between 5-10 minutes a day practicing English on the Duolingo app. In general, practicing on the app daily goes hand in hand with the student's willingness and commitment to learn a second language, since it is necessary to have autonomy and willingness to dedicate time.

Duolingo helps to improve English

The constant practice of a language is essential to improve certain weaknesses that arise when learning a second language, which is why Duolingo is an app that provides a lot of material that allows the student to advance level, as it has vocabulary and teaches grammatical forms in which to write and speak, allowing the student to improve their weaknesses every day, then the results obtained are related.

Figure 14

Duolingo helps to improve English



Taken from author of the project

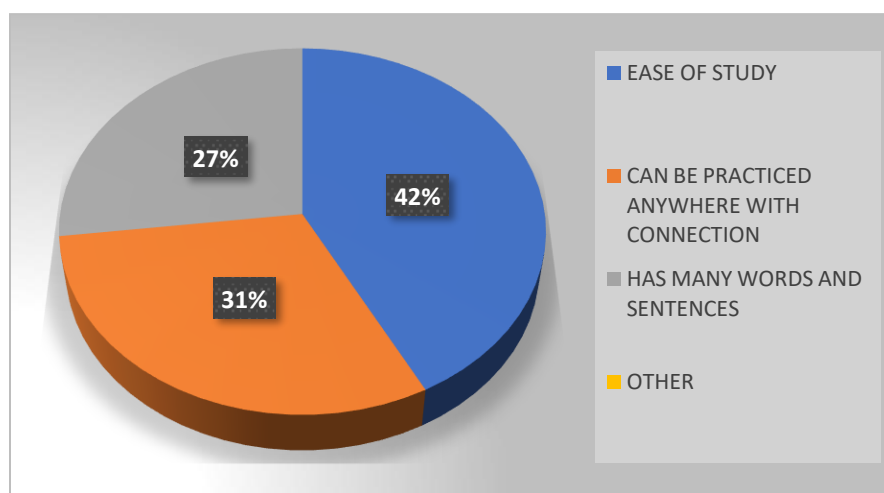
According to Figure 16, 94% of the respondents say that Duolingo helped them to improve their level of English, because they learned new words enriching their vocabulary which allowed them to write short texts in English, also 6% of the students say that they have not improved their English much, this is mainly due to the lack of commitment of the students, because they did not care to practice and some do not like to learn English according to the information collected. According to Conicet (2022), the commitment of the students is the energy they have, this implies that each student dedicates time, effort and autonomy in the activities they want to achieve. In short, the progress of their learning depends on each student, since according to the time they dedicate and the commitment they have to learn, they will achieve better results in learning a second language.

The best of Duolingo

The Duolingo app is a playful and creative tool that motivates students to learn and practice a second language and can be used on any technological device with internet access, which is why the students highlighted the advantages of using Duolingo on a daily basis, as shown below.

Figure 15

The best of Duolingo



Taken from the author of the project

Guevara (2020) states that Duolingo is one of the tools for learning a language online, which offers many exercises with a variety of vocabulary, has a clear interface, and works well, both on desktop and mobile devices, is a free application, presents an interactive/fun learning. The Duolingo app is easy to study, which is why 42% of the students say that the app is easy to study, since the topics are easy to practice and go up in level as the student practices in the app, and 31% of the students liked Duolingo because they can study anywhere with an internet connection, it is not necessary to be in the classroom or at home, if they have internet they can be in the park, the beach or in the field, finally 27% of students said that the application has many words to learn which help to enrich the student's vocabulary and relate it to the environment. In

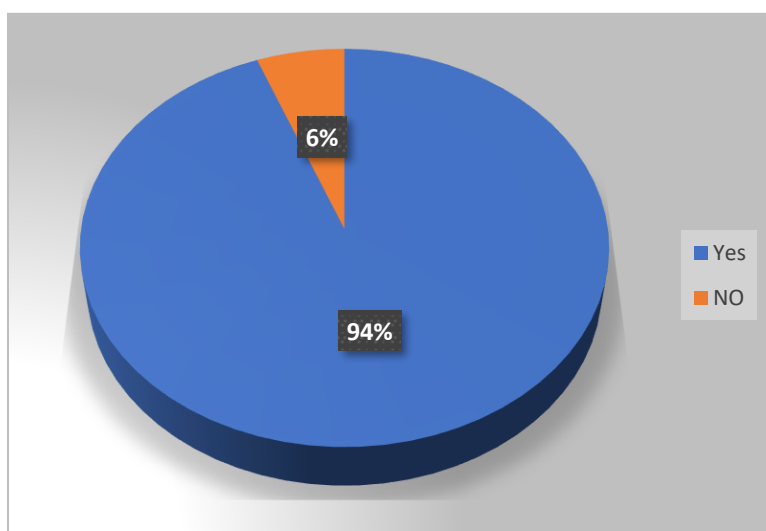
general, Duolingo presents many advantages that strengthen the learning of a second language through the constant practice of vocabulary in the app.

Use Duolingo out of the school

Students who wish to learn a second language are constantly practicing, inside and outside the classroom, since they are autonomous in their own learning, as well as the Duolingo app encourages them to practice daily and increase their vocabulary, the following are the results obtained by the students.

Figure 16

Use Duolingo out of the school



Taken from the author of the project

Autonomous learning requires the student to practice English as a second language on a daily basis, which helps them to constantly review the words they have learned and avoid forgetting them. That is why 94% of respondents say that they want to continue studying English with the Duolingo application, since the app provides playful and creative material that attracts

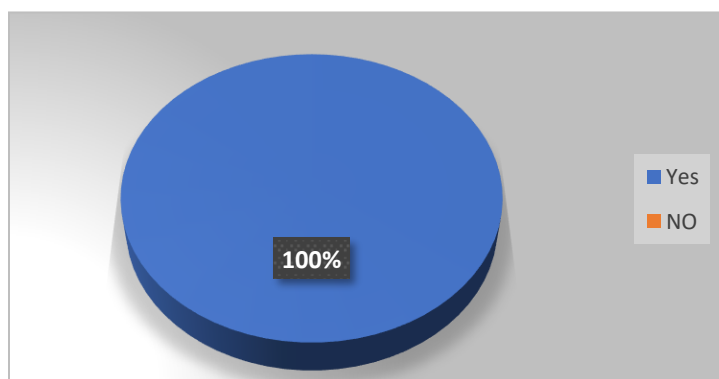
the attention of the student and allows the user to learn while playing enriching their vocabulary, on the other hand 6% of students say they will not continue studying Duolingo outside of school, this is because the student has little commitment to learn a second language and has no autonomy to practice daily.

Duolingo as a didactic tool for English language learning

Using technological tools to practice English inside and outside the classroom is an advantage. Since the constant practice of a language enriches the acquisition of vocabulary reaching a greater mastery of it, creating dynamic environments that motivate the student as evidenced below.

Figure 17

Duolingo as a didactic tool for English language learning



Taken from the author of the project

As shown in Figure 17, 100% of the students affirm that they want La Gloria school to implement Duolingo as a ludic tool to strengthen the vocabulary of the English language, which allows students to interact with technologies helping to create an autonomous and efficient learning, as Polo (2015) says Duolingo for schools helps students to reinforce difficult concepts and allows teachers to understand the individual needs of each student, since the app provides

detailed reports on the user's progress. In general, the students at the Glory School were happy to use the Duolingo app as a didactic tool to practice English, and wish that it would always be used in English classes to change the methodology used by the teacher.

Use of Duolingo app as an educational resource to practice English outside the classroom

After analyzing the information obtained in the survey and by other authors, it is evident that the Duolingo app is a technological tool that helps students to constantly practice English inside and outside the classroom at no cost, the interface that manages the app is dynamic, easy to use and integrates listening and writing skills in different contexts so that the student has a comprehensive learning. As Herrera (2021) says Duolingo is one of the best tools to learn English, the app gives the option to take an exam that certifies English proficiency and is endorsed by more than 3,000 institutions. In general, Duolingo can be used by teachers to complement English language learning, since its methodology is innovative and attracts the student's attention through interactive games that encourage them to learn vocabulary and grammar.

On the other hand, due to the humanitarian crisis that the world lived in the years 2020-2021 gender that many factors changed, including education was one of the areas that was most affected, since some schools and educational institutions were not prepared to face these changes, as ECLAC (2020) says The pandemic caused an unprecedented crisis in all areas, In education led to the massive closure of face-to-face activities of educational institutions in more than 190 countries in order to prevent the spread of the virus and mitigate its impact. This caused

the teaching process to be more complicated, so much so that the Glory School stopped teaching classes for a while they created strategies so that all students would continue in the process and not drop out, finally it was decided to continue learning through educational cards and as a support tool for communication WhatsApp was used, which allowed all students to continue their learning process from home. Therefore, the Duolingo app was implemented to fifth grade students and the motivation and interest to know the app and start using it was observed, since it was a different idea to practice a second language in a dynamic way, free and from home during the pandemic, given that some of the students belong to social strata 1 and 2, so they do not have enough resources to pay classes or private English courses, it is for them that by using Duolingo they were motivated to continue practicing English, because it is innovative and can be downloaded on any technological device. In general, students are happy to change the methodology used and implement technological tools in learning a second language such as English.

Studying English in the pandemic was quite a challenge, since many parents did not know or have the knowledge about the language, so the Duolingo app helped them to reinforce the topics seen in the cards provided by the teacher, where they made sentences in English, related words and listened to audios and then answer a questionnaire, so the student could practice from home at any place or time of day, The app has enough material to practice English and its intensity increased as the student practiced, so it was not difficult to study, because the app starts with a basic level and increases as they study and new units are enabled, also the app has audio and reading books for students to practice their listening and writing skills. In short, each student practiced from home and reinforcing the topics seen by the teacher in the study material.

Finally, when analyzing the results obtained in the surveys, it is observed that the students liked using the Duolingo app as a support tool for English classes during the pandemic, since it allowed them not to forget and learn new vocabulary, due to the constant practice of English in the app. The students claim to feel comfortable and happy using Duolingo to practice English, because it is a new app, easy to use and dynamic, that is why the students want to continue using Duolingo at school to practice English, since it can be used in the classroom and at home. In general, using technology in education is essential, as it allows students to be motivated and interested in learning, since every day education must implement new learning strategies that are at the forefront of technology, so Duolingo is a practical and free app that allows any student to use it regardless of their economic capacity.

Conclusions and Recommendations

Once the study on the Duolingo application as a support strategy in English classes during the pandemic was conducted, positive results were obtained with the students of the La Gloria school, which showed the satisfaction of students to practice vocabulary from home for free from the app, which allowed them to increase their writing, grammar and listening skills in a second language such as English.

During the development of the project, it is possible to promote autonomous education in students through the use of the application, since it permits individual and practical work without the supervision of a teacher. At the same time, the use of technological tools allows students to adapt to different learning environments during the research period.

It was possible to identify that through the application of technological tools in education, such as the Duolingo app, students' interest in learning, being responsible, autonomous and enriching their knowledge and different English language skills is considerably strengthened.

Recomendations

Stablish different ways of implementing new strategies and methodologies in which teachers involve the recent technological tools into the classroom. Besides, teachers have to be educated in the implementation of many of them into classes as these technologies contribute to a better form of developing the different skills in new generations.

Interactive classes are now possible, teachers need to change the perception students have about defining classes of English as a boring experience on the other hand, promote in student a significant learning in which they are able to get as much as they want but only on their pace only. Creating a linking bridge between learners and knowledge.

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