

USING THE DUOLINGO APP TO ENHANCE STUDENT SELF-
REGULATION: A CASE STUDY OF AN A1 GROUP DEVELOPING SELF-MONITORING
STRATEGY THROUGH MOBILE LEARNING

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We hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. We also declare that, as required by these rules and conduct, we have fully cited and referenced all material and results that are not original to this work.

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Abstract

Self-regulation is a process that involves motivation, self-monitoring, managing of habits and behaviors in order to achieve goals.

One of the main purposes of Education is that learners find the way to be independent and self-regulate their own learning, be aware of their skills and try to discover what strategies and forms of learning are better for them.

Lack of commitment to learn English was one of the constraints that an A1 group of students in Barranquilla Colombia faced so that, educators were dealing with the necessity of enhancing responsibility and self-regulation among students.

Looking for new forms to encourage students to learn English, researchers took advantage of technology and with the use of Duolingo, a mobile application that tried to enhance autonomy and use the personalized learning of this application to challenge their willingness.

Researchers decided to carry out a study to revise to what extent the use of an application as Duolingo could contribute to develop self-regulation in the target group, measuring the degree of self-regulation in the students through the measurements scales of different authors. This study also determines the pedagogical characteristics of Duolingo and integrates the use of the app to the lesson plan.

The instruments used in this study were: Surveys, interviews, document analysis and a post surveys. The researchers discuss results related to self-regulation and describe pedagogical features of the application through a model for evaluating apps.

Key words: Self-regulation, self-monitoring, leaning strategies, MALL, CALL, application.

Dedication page

I give thanks God for letting me finish my Master degree.

Thanks to my parents because they have supported me during all my life.

My co-researcher and friend for being patient. All my gratitude to Rosanna Molina, definitely you are the best partner. Thank you Karen Villalba for her guidance in this thesis and all the teachers who did this master enjoyable with all their support.

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1. Introduction

In Colombia education is oriented to the building of safe environments to study in different socio economical contexts, and, particularly in the English field, the government has tried to increase the English level in primary and higher education mainly through the National Bilingualism Program (Programa Nacional de Bilingüismo (PNB) 2004-2019). PNB focuses on the enhancement of the English proficiency level of students in all schools and proposes to take 11 graders to B1 level at the end of the course and a B2 level for university students (MEN, 2006).

Additionally, according to the National Ministry of Education , since 2015 the government has delivered 1.4 millions of tablets and laptops with digital content as electronic books and English platforms to support Math, Science, and Languages in 8000 thousand public education institutions around the country to enhance the use of technology in the classrooms and try to improve the teaching practice to change the way people learn in Colombia.

Moreover, in order to regulate the use of these electronic devices, according to the report *Colombia la Más Educada* (MEN, 2016), in 2015 the *Observatorio de Uso de TIC en educación e innovación educativa* integrated by 13 experts from the National Ministry of Education was created to measure the use and impact of ICT in education.

Studies that researchers have been doing in Colombia are been oriented to try to understand or face different problems in the teaching practice related to skills, strategies, peace, culture,

inclusion, and post conflict, and these also include ICT research in education. During the last 5 years researchers from different universities in Colombia have been studying about technology, for example, Orjuela (2018), *Estudio de la incidencia del uso de ambientes virtuales de aprendizaje en el desarrollo de competencias TIC*; Urbano, Sánchez, Castañeda, and Londoño (2016), *Uso de aplicaciones para el aprendizaje de una lengua extranjera en la Universidad de la Salle Bogotá*, and García (2014) *el Uso pedagógico del celular en el aula Universidad del Tolima*, among others. However, there are not too many studies oriented to explore whether the use of the applications on mobile devices can contribute to develop self-regulation to a group of students in secondary schools and even more students with an A1 level.

Technology has become a trendy tool but, for some authors and researchers, it is considered as a monster that wants to stop communication, peace, and relationships. Despite this way of thinking, it is undeniable that self-learning, spaces that provide people with safe environments, personalized guiding services to learn, and any kind of activity or platform that offers to reach any academic goal could be a solution for those who want to enhance new skills and become a better academic or professional version of themselves.

Educators cannot deny the strong influence of technology in our regular lives and how mobile applications could make people's lives easier. It is common to observe students with different concerns and preferences that through channels as YouTube try to obtain orientation to different questions or follow tutorials in order to reach different types of knowledge about a wide number of activities, from sports to foreign languages as English, for example. Teachers deal with the challenge of setting the condition for engaging learning environments and getting students'

attention in order to pursue class goals. They are expected to prepare and plan engaging activities and projects to improve students' learning. With these ideas in mind, the researchers carried out the research project presented in this paper, which focuses on the application of Duolingo as a tool to study self-regulation in an A1 group of learners as a way to explore new methodologies that can support learning and encourage students' autonomous work. This research could help EFL teachers who want to enhance the value of the discipline and develop responsibilities and challenges for students in order to promote commitment and self-regulation to their learning process.

1.1 Research question

To what extent does the use of Duolingo app contribute to the development of self-regulation in students with an elementary level of English language proficiency at a private school in Northern Colombia as perceived by students themselves?

1.2 General objective

To determine to what extent Duolingo app contributes to the development of self-regulation in students with an elementary level of English language proficiency at a private school in Northern Colombia.

1.3 Specific objectives

- To identify pedagogical characteristics of Doulingo app dashboard

- To integrate the use of Doulingo app to the lessons implemented through the dashboard area
- To determine the degree of self-regulation in the students after the use of Duolingo dashboard

1.4 Description of the context

The setting of the following study corresponds to a group of boys and girls who are in sixth grade and their ages are between 11 and 13 years old in a private school in Barranquilla. These sixth graders have access to mobile phones for the benefit of their educational process. Students have six hours of class per week and a specialist in English teaching as professor as well.

Specialist teachers are primary and secondary teachers who have expertise in a particular field, such as special education, career advising, school counselling, teacher librarianship and teaching English as a second language NSW Government (nd). The school has offered to the students a Computer lab and Wi-Fi connection that students can access when they have specific assignments involving the use of mobile devices. In the classroom, teachers have a video beam to project the digital book they use as the class core material. The name of the book is Achievers by Richmond editorial.

This book is A1 + and it has a digital platform that provides the students with the opportunity to practice at home or anywhere if they can access the Internet from a mobile phone or a tablet. For the English classes and other subjects, educators implement the video beam as a tool to call the attention of the students and thus facilitate the learning environment as well. However, the

implementation of apps and mobile devices in the classroom has never been done before due to the banning of cell phones in places different from the playground, which means cellphones cannot either be used in the classroom or in class. Therefore, the use of mobile phones for teaching purposes will be a challenge to face as educators in this research project because of the paradigms presented by the traditional context of the school. Some school representatives think that pupils can use the access to cell phones for different purposes other than those proposed by this study. The chapter that follows will discuss fundamental theoretical concepts for this study and will highlight similar research that has been conducted on technologies for learning enhancement.

Chapter 2. Theoretical Framework

2.1 State of the art

In the next section we are going to do an overview of previous studies that were oriented to the use of applications as Duolingo for academic purposes in the study of English as a second language, the use of technology to different contexts and groups in different parts of the world in order to set a guide, example or even inspiration in our own research work.

Apps for learning languages have become very popular around the world in recent years. When people look for apps for learning purposes, they try to satisfy an intrinsic motivation to solve their needs, so self- monitoring could be one of the features of the apps world. In different parts of the world educators have realized that the use of technology and apps for enhancing languages could be part of their teaching tools to catch learners' attention and motivate them to overcome difficulties in their learning process. There is a wide variety of apps for people to use them, but just some of them fulfill the requirements to be part of the lists of apps that could be effectively used for academic purposes. Researches from different parts of the world have studied the use of Duolingo app in academic environments because this is one of the most well-known applications to learn languages. Educators, learners, and people in general have used it to learn different languages. This kind of research can serve to inspire educators to continue trying new alternatives to help students learn and practice a second language. The first study worth highlighting is the research conducted by Jacobsen, Friesen, Daniels, and Varnhagen (2013). In 2011 these authors focused their attention on the relationship between the engagement of

students and the use of technology in high school. This research was carried out for about two years in the grades 9 through 12 in 24 schools jurisdictions in Alberta, Canada and paid attention to the strategies used by teachers to design interesting and challenging activities that create an appropriate environment for engagement the students in their own learning process. These authors also reflected on the role of schools in the implementation of technological infrastructure that facilitated the use of devices by students and allowed them to navigate a digital and modern context of learning. They also considered in their work that the design of the learning experience by teachers played an important role in supporting students with different interests and facilitated sharing to build knowledge. One of the questions that the authors developed in the research was what the impact of technology on student is and its success in schools and how technology is used to support student learning. (Jacobsen, Friesen, Daniels, and Varnhagen, 2013, p.93). The authors used different data sources as classroom observations, surveys, focus groups, and interviews. The surveys were used to document perceptions of students' engagement. For the class observation, there was a focus on checking students' level of engagement in the lessons, activities or tasks by observing behaviors like disengagement, inattention, ritualistic compliance that means lack of enthusiasm for the activities. The academic engagement was determined by students involvement in doing the work assigned, their enthusiasm for the work, their initiative, and so on. The intellectual engagement was analyzed by personal commitment to explore ideas. The authors of the study tried to center their attention on the importance of the implementation of technology and what institutions must do to take advantage of it in the classrooms in order to maintain students'

interest. If the teacher used technology in the classroom, 76 % of the students tended to observe, and listen to the teacher. The authors assured that in 1/4 of the classrooms learners could try during the research the use of technology in real life and have self-direction. On the other hand, the teachers were aware of the importance of technology for learning, but they recognized there were barriers that limited its use, lack of planning, instruction and professional sharing through dialogues, support, and training. Besides, in the discussion part, they remarked that in some schools a few innovations in the classes were implemented by teachers who showed their engagement through their enthusiasm and openness to update their vision and ideas despite some infrastructural and logistical barriers during the research. Many teachers reported that their students looked more engaged with their learning process.

Jacobsen, Friesen, Daniels, and Varnhagen (2012) concluded that technology could be used to create better learning environments. Students could be engaged, but they found that in the majority of the schools did not allow students to use social networking in schools. These researchers also determined that two years of study were not enough to establish the changes that technology could influence for learning engagement in students. Another research worth highlighting was done by Finardi, Gomes, and Brito (2016) who applied a research in which the main goal was to reflect on how mobile assisted language learning could help in the acquisition of a second language. They used the application Duolingo and analyzed its advantages and limitations. The authors of the study explained that nowadays the implementation of mobile learning in classes transforms the content and makes it more accessible, and educators are trying to find the limit between gaming and learning. These

authors focused on Duolingo due to some of its characteristics. For instance, it is a free offer to the target market of the second language acquisition and it is widely known in all over the world. In short, they decided to work with the Duolingo app because of its ubiquity and the independence that it provides to its users. Boy and Motteram (in Finardi, Gomes, and Brito, 2016) state that some teachers need to be careful with the administration of the devices with the students because some of them could find in this form of learning a distraction and deflect the real purpose of their use. They mention that the presence of the teacher for the guidance of students' work is paramount. Additionally, they mention something about its limitations which are that the learners can access lessons of languages other than English, but it will depend on the user's first language, for example, a person who wants to learn Korean language but, his or her first language is Spanish, must know English first because the lessons do not have the Spanish version, just the English one. Finardi, Gomes, and Brito, (2016) explain how Duolingo is organized. However, this form of learning may not be effective for others due to the lack of intrinsic disposition. Others considered that interaction is the main characteristic of a second language acquisition and through MALL (Mobile-Assisted Language Learning) it won't be enough. Other groups of this research focused on considering that Internet offers support and current information to people and those are enough to learn a second language through this tool. Teachers also were interviewed and some revealed that they did not know enough about the application, and did not include it in their classes but, just few teachers knew about the app and encouraged students to use it and find support on it. This study concluded after a triangulation that people not only wanted to learn through MALL, but for some of them a

combination of methods is a good way, including face to face classes and the use of an app by the guidance of an educator. They considered that Duolingo just can help to improve structure and vocabulary of language and, perhaps, it needs teacher supervision in order to enhance interaction as part of an effective communication. Furthermore, Pacheco and Parra (2018) conducted a research study about the Duolingo app and its role in enhancing of vocabulary. The study was done with ninth-grade level of elementary school. They used surveys, qualitative and quantitative data collection, and the authors revealed at the end of the research how useful Duolingo was for this specific context to develop vocabulary in learners.

The researchers pointed out that in Ecuador and in the town of Ambato, where the study was developed, students did not feel motivation for English learning classes because of the lack of interesting activities developed by the educators during their classes. They also considered that people in Ecuador generally use devices to communicate with others, but they were not used for educational objectives. Pacheco and Parra (2018) stated that the students in Ambato learned vocabulary by memorizing verbs, presented in long word lists, so students tended to get bored and did not pay attention to the class. The study tried to present a different and innovative way for students to learn vocabulary, pronunciation, and grammar through Duolingo and analyze the acceptance of the students for the app. In the conclusions of the study, the interviews to students showed that the majority of them considered Duolingo a dynamic tool to use, one with enough activities to work on vocabulary. Students also considered the presentation of the app very attractive because of its fonts, logo, and design. The researchers also added some recommendations such as the use of it for 30 minutes per day

to improve the skills and suggested its implementation in educational institutions especially in those that already have the necessary equipment to practice with some kind of technology and with applications. They recommended the use of the activities that Duolingo has, activities such as matching, ordering sentences, and repetition because these could increase students' vocabulary and will help them improve their language proficiency. Another study worth highlighting is the one conducted by Chiao-man Tsai (2016), whose main objective was to determine whether Duolingo helped learners to develop autonomy. This study was applied to ten college students, who had used Duolingo and considered the app a useful and effective tool for language learning. Similarly, Holec (1980), argues that for students who want to develop autonomy, it is necessary that they set their own learning goals and self-evaluate as well. This research studied how Duolingo helped learners and which of its characteristics students liked the most. The author concluded at the end of the study that learners increased their autonomy in self-regulation in time, evaluation, looking for more materials to study. However, those who had stronger foundations of language engaged more strongly with the application, found solutions to their problems, and presented more autonomous behaviors. Students reported that they liked the daily reminder option because it helped them to create a habit to practice more times a week. Likewise, Munday (2016) researched about the experience of using Duolingo as a tool for learning in the language classroom. In this study, the author explored the use of the app for Spanish as a second language course. Munday stated that in the language learning research community there are some authors that highly criticize the quality of language competence development through the use of the application and try to question its validity.

However, Munday (2016) explains many aspects about Duolingo, how it works, the different kinds of exercises that this platform presents, and pays attention to the grammar translation method that the application uses.

As Hall, graham and Cook (2012), Munday considers that translation method has a role in the acquisition of a second language and recognizes the value it has even though some authors consider this as an old and outdated method to learn. Additionally, according to this author, the translation method could be necessary and even effective because one of the forms students have to understand and try to stablish a connection with their cultural identity and preferences is by natural translation. Munday (2016) also considers that perhaps Duolingo cannot replace an English course, but it can complement the work done in it. His research was oriented to figure out if Duolingo could work effectively in a language course in order to complement and reinforce the work done in class. One of his research questions was if Duolingo promoted self-directed learning that moves beyond the course requirements. The target groups of this study were six students from a first year Spanish course level A1 and 16 from an advanced course with a B2 level. The instructor of the project of the A1 group set for students to carry our extended practice through completing a series of lessons every day and the goal was to maintain constancy in the practice.

On the other hand, for the B2 group, the goal was to complete all the lessons that the application presented at that time, 5 skills per week. Students also completed a survey and the results showed that the majority of the students considered the app easy to use and 80 %

enjoyed using the app. Students were also satisfied with the gamification aspect and the instant feedback provided by the app. They discovered that in the B2 group learners found it stressful trying to complete the five skills every week. According to the self-direction aspect, students answered the question: “did you complete more lessons than those required for class?” and the survey showed that in the A1 group students were inclined to complete more lessons than the required. Additionally, in the B2 group more than the 50 % of students did not complete extra lessons. In the discussion part the author considered that Duolingo could be a credible resource for extra activities in an English course. The results of the study determined that it is more recommended for beginners. This app could contribute to increase the learning of the students and the activities of the learners could be monitored by the Educator’s dashboard. Munday (2016) considers that the Duolingo app promotes self-directed learning because the instructor discovered that 10 % of the students continued using the app after the end of the semester.

After analyzing all these studies, we could conclude that Duolingo have been implemented for many educators around the world to obtain academic goals and teachers also have used technology to maintain student’s interest. The previous summary provided us information about how could we incorporate technology and applications to our context and academic goals in order to develop this study. For the next section we are going to define different clue concepts that are the foundations of this research work.

2.2 Educational technology

Bates and Poole (2003) state that technology education refers to any educational technology that provides communication and is distinct from personal, face-to-face interaction and may contain any of the following types: hardware, software, portable devices, and Web connections. This technology has changed education, and it has somehow transformed tasks, classes, and, in many cases, self-monitoring learning. There is no doubt that teachers and students use technology frequently outside of school. According to Dunn, Wilson, and Freeman (2011), educational technology can improve communication skills, knowledge acquisition, data sharing skills, critical thinking, problem solving, independence, self-direction and orientation towards the objectives, teamwork, new social skills, creativity, and openness to change. Similarly, Stowell, Oldman & Bennett (2010) say that today's technology is useful to improve teaching and learning and criticize the beliefs of many teachers about technology that this could mentally weaken students. Carr, N (2008), and his article "Google is making us stupid? Which explains that easy access to information will make people think superficially. For Stowell, Freeman, Wilson & Dunn (2011), technology is not just a tool, since technology can create new types of learning. There is technology for classrooms that helps students get quick feedback in more interesting ways than traditional ones. In addition, Stowell, Freeman, Wilson & Dunn (2011) name different types of technology that could be used in the classroom not just as a tool, as previously stated, but as a new way of learning. For instance: podcasts, online videos, digital textbooks, collaborative websites, personal websites, mobile devices, data mashups, and collective

intelligence such as Wikipedia. All in all, technology can be beneficial in education if it is used appropriately.

2.2.1 Apps concept and features

Apps are informatics applications, programs designed as tools to allow users to do different and specific activities; it is possible to find mobile apps in smart phones, tablets, etc (Techopedia.com)(nd). According to the Web page, Poder Pda (2014) calculators were named by experts as the pioneers of mobiles since they could keep a lot of information and resolve basic operations. In 1993, Apple commercialized the first device, and it contained functions that allowed to organize information and work as a pocket computer. Years later, apps became popular for being used for business purposes and later on they were used in different fields, and they could be used then for educational tasks.

According to Cochrane and Bateman (2010), the features of mobile learning allow students to facilitate their life because of benefits such as portability because they may be used everywhere beyond the classroom. Apps have flexibility. They may offer adaptability to learners' schedule and quick content delivery to promote collaboration. Therefore, communication among peers could be increased, pupils could learn from each other, and perhaps contribute to each other's achievements. Apps can also encourage independent cooperative learning. They could be the perfect option for different moments through everyday learning. Some learners will prefer to work on new contents and activities in private or, in other cases, some will need the guide and cooperation of their peer. Given these characteristics, it is not strange to find today programs and

educational contexts which have implemented mobile learning with smartphones that allow more freedom and interactions. Apps in general have advantages, and they can be used commonly with free access. According to Kim and Kwon (2012), the content of the apps has emphasis in recognition of vocabulary, and in previous research studies, they considered that such content could be divided according to skills. For example, in the case of speaking, apps offer different topics according to age ranges. These apps have recall activities, with questions and answers, and audio and video tutorials. They also offer voice recording, simulations, and quizzes. In general, the conclusion of Kim and Kwon (2012) revealed that the majority of the apps studied by them contained pronunciation, grammatical elements, sample dialogues, and the vocabulary is the most common skill grouped in levels.

Other important features are the use of multimedia as music, images, audio lingual and task-based activities, which are the dominant methods found in language learning apps. Furthermore, apps for language learning, including Duolingo, offer learners opportunities for testing progress in their language proficiency. According to Brown (2004), we can identify if a language test has content validity because through observation the achievement that is measured can be detected. In order to determine the validity of apps, it is necessary to check their objectives to be sure about their appropriateness in order to obtain the goals they were created for. Another aspect to consider in the features offered by language teaching and learning apps is the way instructions are given for the different tasks or activities. The authenticity according to Brown (2004) is one of the principles of language assessment and it is something to bear in mind in the design or selection of an app. For Brown (2004), authenticity may be presented through

natural language, contextualized items, and meaningful or interesting topics related to the age of the learners. The site Mobile Learning Toolkit (2019) talks about another feature of mobile learning activities, which is Agency. With this feature, students have control over the time and places where they learn. It brings autonomy so that agency is related to personalization which brings more engaging to the learning process. The web page mobile learning Toolkit.com (2019), declares that customization, helps to the needs of the students, making the mobile learning experience more personalized.

With the previous information, we could obtain a perspective about what the usability of the applications is and explain some concepts necessities for this research.

In the next section authors are going to explain how applications for academic purposes work and set more clarity about how apps could have a tendency to enhance some skills through different kind of exercises. Besides, the next section will explain all about Duolingo app since who their creators are, its evolution and how it works nowadays.

2.2.2 Apps for language learning

According to Blake (2013), second language acquisition is an activity that demands a lot of time of practice, a person might need approximately 1320 hours of study and practice to obtain high fluency. Blake (2013) states that it takes 4 or 6 years to obtain significant changes in learners to observe an important progress in their second language proficiency. In this sense this author considers that keeping in touch with the target language in a more realistic way could

reduce the time to achieve the expected level.. Ideally this exposure should include experiences abroad in contexts where the target language is used. However, Davidson (2007), showed that the percentage of students that can afford this alternative is very low. Therefore, digital technology becomes relevant to fill this gap with the use of APPS created to improve language, among other alternatives, learners can have access to information, synchronous interactions, and continuous connection deriving in more commitment to obtain the main goal, which is ultimately to improve their skills in a second language. On the web page “The conversation” (2015), an article was published in 2015, that talks about how effective language learning apps are, it was mentioned the impact of apps in the language learning and the interest that people as Bill Gates has for apps as Duolingo because it is a free app, which can be used for members of many economical spheres. Users of this app have to complete exercises successfully to be able to unlock bonus lessons and move up through levels. Language learning apps as Duolingo use educational games, which are designed to teach specific subjects to increase learning motivation (Torrente,2010). In relation to educational games Hays (2010) states that instructional games are designed to develop instructional objects. These kinds of games have rules and constraints that try to simulate real world situations. The creation of apps for language learning must be well planned and designed to enhance different skills. Plan and design added to the utility and accessibility provided by mobile communication opens a wide spectrum of possibilities in the educational field as well as in many others. That is to say, smartphones allow people to access, manage, and create information or content through the Internet, and the use of apps also allowed by smartphones derives into new forms of education. With these programs, according to Kim and

Kwon (2012) people can obtain personal experiences without limitations of age, place, and interests.

2.3 Duolingo

Duolingo started as an academic project that wanted to focus on language education because of the needs of millions of people around the world who want to be capable of getting a better job and learn other languages. In 2011 Luis Von Ahn and Severin Hacker created this app that could benefit many people without having to pay for it. The guardian (2014). According to Munday (2016), Duolingo is an easy to use application, usefully built as a game with levels, repetition, following grammar translation that can offer extra activities or complement a course. Nowadays Duolingo has at list 32 languages to practice. Moreover, Vesselinov and Grego (2012) state that 34 hours of exercises in Duolingo is related to a college beginner level course. Munday (2016) argues that Duolingo tasks are not centered in communication skills, but regardless, they can benefit many students that use smartphones and even work from a desktop computer or a tablet. The exercises are divided into lessons and skills that emphasize on vocabulary and grammar. Activities such as pronunciation, translation, writing down what you hear make part of the resources that Duolingo offers to its followers. The lessons deal with general topics and grammar points such as greetings, trips, restaurant, people, clothes, school, business, animals, friends, colors, present, the body, prepositions, dates, adjectives, home, hobbies, objects, numbers, education, past, vocabulary as nature, medicine, communications,

arts, sports, present progressive, future, and conditional, among others. Duolingo offers immediate feedback and the opportunity to have a discussion part where the users can give comments on particular cases and talk about the meaning of the sentences. Munday (2016), who explored the use of Duolingo to complement traditional Spanish classes as foreign language, found that Duolingo has a structure that contains 66 skills, 329 lessons, and 1571 words. Since 2015 Duolingo offers schools Duolingo that allow teachers to create a class and add students to Duolingo in order to promote the practicing of particular lessons that could help to practice languages with their regular classes at school or course.

The teacher can assign exercises of different skills and the students change their levels or move forward. To achieve the set goals, students need to dedicate at least 10 minutes per day to obtain rewards and try to complete the skills that have certain number of lessons to develop. Educators have the opportunity to select the dates of the assignments and the days that students will have to complete them. Furthermore, teachers check and monitor the progress of the students with a complete information of each one, and they can also track if learners turn in the assignments on time, late, or just miss them. Teachers can also see the number of points that students make, the date, time of the day when they access, what lesson they practice, and how many coins they accumulate for their work and assertiveness. The dashboard sends the teacher a link to show the progress of students weekly. Munday (2016) points out that this dashboard facilitates the work to educators and it is very useful. Duolingo allows an independent and ubiquitous form of learning, according to Finardi, Gomes, and Brito (2016). However, authors such as Kulkuska-Hulme (2009) state that mobiles and technology are changing the relation between learning and

entertainment and between technology and people. Munday (2016) also considers Duolingo as a gamification resource because of the way it is designed, for instance, winning or obtaining bars progressions, hearts, coins and more for advancing to the next level. However, other authors like Finardi, Gomes, and Brito (2016), Gunter, Campbell, Braga, Racilan, and Souza (2016) consider Duolingo as MALL because it uses games features to retain evaluation model. Finardi, Gomes, and Brito (2016) conclude in their research that Duolingo platform cannot foster language development because of the lack of interaction and the presence of the teacher is considered important to motivate and practice the interaction among learners. On the other hand, Chiao-man Tsai (2016) mentions that studies conducted over the last 10 years have centered the attention on autonomous learning and how to enhance learners' autonomy with the help of technology. There are many authors that have tried to define autonomy. For instance, Holec (in Chio-man Tsay, 2016) states that technology enhances learners autonomy by "determining objectives, content and progression selecting methods and techniques, monitoring acquisition, and evaluating what has been acquired." (p.3). All of this mentioned before describes in part some of the functions that school Duolingo offers. Chiao-man Tsai (2016) concludes in her research about the role of Duolingo in foreign language learners that the group of learners that were exposed to use Duolingo tended to enhance autonomy. With 8 years in the market and more than 300 million users around the world, this app is changing the way of learning languages.

2.4. Language Learning Strategies

According to Oxford (1990), Learning language strategies allow for students to learn in a more effective way because strategies are related to techniques that help students to acquire

information, new knowledge and develop skills. In other words, learning strategies help them to understand and make connections for learning in an easier way. Oxford (2003) states that these strategies support students to know the type of actions which they must follow in order to learn the target language. According to Oxford (2003) these strategies are divided into: direct and indirect as it is showed in the table 1. Strategies that fulfill the conditions presented in table 1 transform the acquisition of language into a more enjoyable, easier, more self- directed and effective experience Oxford (1990). Learning strategies are approaches that students apply in order to contribute to their learning process since they are intended to lead learners to resolve learning issues. Cohen (1998) defines strategies as the actions that students take to self-monitor their learning.

Table 1.
Types of learning strategy.

DIRECT	MEMORY	It makes reference to the mental process that includes reviewing images and sounds
	COGNITIVE	Practicing, receiving and sending message, analyzing information, reasoning, creating structures for input and output
	COMPENSATION	Centering your learning , arranging and planning your learning , evaluating your learning
INDIRECT	METACOGNITIVE	Centering your learning arranging, emotional temperature.
	AFFECTIVE	Lowering your anxiety , encouraging your yourself taking your emotional
	SOCIAL	Asking questions, cooperative with other emphasizing with another

From: Rebeca Oxford (2003)

Learning strategies have a variety of features and play an important role in the student learning process because by implementing them, students are expected to increase their autonomy, which helps them to face up learning issues as well as emotional problems. If they have been impressed in a negative way in their learning, then, students will be more aware about their learning and about their gaps. Another factor that this kind of strategy allows is that students can develop better understanding to accomplish a task or a type of activity. Furthermore, learning strategies are necessary, so students can compensate their difficulties in the cognitive process. Barrel (1995) states that it is essential that learners are always aware of their strengths and weaknesses, so they can apply a proper strategy according to their difficulties. Furthermore, Chamot and Kupper (1989) mentioned that the more students implement learning strategies, the more they are going to be able to achieve an effective learning language.

2.4.1 Metacognitive Strategies

Meta-cognition is related to the awareness of a person of his or her own level of knowledge (Chew cited in Sun, 2013), and metacognitive knowledge refers to the acquaintance that a student has acquired in a cognitive processes (Flavell, cited in Sun, 2013). Cohen (2011) claims that metacognitive strategies have a pre- assessment, preplanning, online planning and monitoring, and post evaluation of the activities. With these metacognitive strategies learners can monitor the use and the evaluation during the learning. Likewise, Oxford (1990), reveals that metacognitive strategies are used to organize, focus and evaluate our own learning, and they can be key in developing autonomous learning, which will be explained in the next section.

2.4.2 Autonomous learning

In an educational view, autonomy is the final purpose of the learning process, understanding autonomy as the capacity of students to take advantage of their learning, anytime, anywhere, without the supervision of an educator Littlewood, W. T. (1999). Autonomy is gradual. It could be seen as a process because learners start to appropriate it and responsibility is a key aspect in developing it. Oxford (2008) sees autonomy as stages, part of a spiral and levels. Self-regulation could be reached through stages: The social, egocentric, and inner speech. A social self-regulation is done with a peer with more capacities; egocentric speech is done by giving self-instructions; and through inner speech the learner has a mental self-guidance because the person has learned to do it. Accuracy of a foreign language in an independent way is generally given by computer programs, videos, websites, and textbooks, which may allow students to work independently in the search for self-regulation. It can be seen the importance of autonomous learning for this study because we could observe some of the features explained before during the research process. For the next section self-regulation will be explained to establish a difference between these concepts.

2.4.3 Self-regulation

Self-regulation is an intrinsic force and is oriented by motivation. According to Zimmerman (1990) those who have more motivation will have more success in any process or activities they dedicate time to. Gardner (1963) states that the ultimate goal of the educational system is shift to the individual the burden of pursuing his own education. In pursuing this, the

interaction of the teacher with the students and the organization in the school or the activities are important too.

Zimmerman (1990) points out that self-regulation refers to learning strategies that demand actions that require skills involving efficiency and goals achievement. According to this author, students who are exposed to self-regulation show motivation, self-efficacy, and intrinsic task interest. Zimmerman (1990) also explains some features related to self-regulation, for example self-oriented feedback loop, students monitor in some way the effectiveness of the method and react to the feedback in different forms. In addition to this, another feature is that self-regulation is an independent motivational processes.

The process of self-regulating activities allows students to choose or select activities and organize themselves. As a consequence, they assume responsibility in the process and their own success or failure. Tables 2, 3, 4 and 5 below present the categories used in present the categories used in this work to analyze the interviews applied to the target group. The categories of analysis provided by each scale will be listed and defined.

Table 2.
Zimmerman Scale

Information seeking	Try to find the appropriate information to work on the assignments
Goal setting	Establishing goals to reach.
Organization and transformation	It refers to all the expressions that indicate the changes students have done in their routines and in some way have transformed their daily routines.
Record keeping	Being clear about the records obtained in the use of the application.

Reviewing materials	Checking the materials
Self- evaluation	Reflect on their own progress and give opinions about it.

Table 3.
Snyder

Snyder scale. This is used to categorize some of the answers that students could have during the interview or survey, this category was taken from the Snyder scale (1974).

I would not change my opinion in order to please someone else or win their favor	
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Table 4
Chen & Chiu Self- Regulation Scale

Level	Activity phase		
Individual	A. Clarifying the problem	B. Gathering information	C. Constructing artifacts
	A1. Understand the problem and list the design requirements independently	B1. View the provided reference and summarize the information independently	C1. Develop and propose design solutions independently
Group	A2-1. Explain one's listed requirements to team members in sequence	B2-1. Explain one's gathered information to team members in sequence	C2-1. Explain one's proposed solution to team members in sequence
	A2-2. Discuss each other's requirements by reciprocal questioning	B2-2. Discuss each other's gathered information by reciprocal questioning	C2-2. Discuss each other's solutions by reciprocal questioning
Class	A3. Share the proposed requirements and give other teams feedback	B3. Share the proposed information and give other teams feedback	C3. Share the final artifact and give other teams feedback

Table 5
Data Driven Scale

Recognizing usability of the application	Accept the application has positive and useful characteristics.
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We decided to use the previous scales from different authors to categorize the answers of the students in the results of the interviews and surveys applied in this research because these authors provide a classification of behaviors or answers detected in previous studies that wanted to measure or find self-regulation among learners. These scales will help us to gather information in students answers from survey and interview in order obtain details about how the experience of using Duolingo app in the target group could have contributed to self-regulate their learning process.

In order to categorize the instruments used in this study, it was necessary to implement different authors to have different point of views regarding the literature.

For the next section

2.5 Mobile learning and Information, Communication and Technology

2.5.1. Mobile-assisted language learning (MALL)

Mobile learning is a process to acquire knowledge using the different ways that are provided by mobile devices such as cell phones, personal digital, smartphones, pads, pods, etc. The purpose of mobile learning is to create an interactive environment by using different applications and, therefore, bringing to students new digital tools that allow the development of effective learning strategies by scaffolding their own learning process, according to Ogata & Yano (2005). Some main features of mobile learning are immediacy, interactivity, and instructional activities. Steel (2012) states that students feel encouraged by using mobile devices because of features like usability, accessibility, and its different functions in the skills.

2.6. Affordances

Within the technological context, there are many advantages to bring mobile devices in the classroom because the quality of these tools can allow educators to make their teaching practical and dynamic. Some features of the implementation of this methodology are that it offers continuous feedback, coaching among learners, and it can make the learning of foreign languages more efficient and active. In relation to this, Chen & Chiu (2016) points out that new knowledge should bring with it the implementation of increased practice frequency. Therefore, mobile devices, with all its features, can represent an advantage to enhance the learning of a second language.

2.6.1 MALL

In the field of Mall (mobile assisted language), there is a variety of apps for English Oral Practice. In numerous studies carried out so far, the authors explain that students nowadays have the opportunity to have access to their mobile devices anywhere and seek out knowledge through the apps on their mobile devices. MALL is a branch of technology that enhances learning by implementing numerous methods of teaching. For instance, it allows students to have a better understanding of the lessons that are being carried out in their classes. MALL is expected to be used with technologies such as mobile phones, MP3/MP4 players, PDAs, and palmtop computers. In order to improve learning English as a second language, Mobile assisted language is a good tool so that learners can improve their oral skills in the target language. Kwon and Eun (2010) say that Mall emphasizes the learner's needs and promotes learning experiences within the classroom. There are some studies that have shown the efficacy to implement Mall in the teaching practice; for example, Gromik (2012) found in his case-study research that Japanese students were able to produce longer recording videos in English, monologues, by using mobile devices, which learners felt more attracted to support their learning using these kinds of technological tools.

2.6.2 CALL

Computer assisted language is an approach inside the educational setting which suggests that a computer can offer a variety of uses for language teaching. Garret (1991) suggests that "the use of the computer does not constitute a method." [Rather, it is a] "medium in which a variety of

methods, approaches, and pedagogical philosophies may be implemented" (p. 75). In Order to evaluate the appropriateness of a task based on Computer assisted language, Chappelle (2001) explains some important criteria to take into account in the acquisition of the second language that can be used by implementing a checklist.

- **Language learning potential:** It is focused on how a CALL task given can promote opportunities to reach a high level of comprehension in the language.
- **Learner fit:** How students feel engagement with language by using task given in CALL.
- **Meaning focus:** how learners' attention is focused on the meaning the target language.
- **Authenticity:** How the task has a level of authenticity among learners.
- **Positive Impact:** how students are being impacted by using these kinds of Tasks CALL.
- **Practicality:** The adequacy of the whole tasks in the learners.

Computer assisted language is a technological tool that makes the teaching practice easier, because it can be used to reinforce some learning gaps in students. Mobile devices promote spaces for students to check their own tasks and learning process. On the other hand, Kim and Kwon framework (2014) lead us toward a pedagogical approach in CALL.

2.6.3 Kim and Kwon framework

This section will show an application assessment framework created by Kim & Kwon (2014) which provides guidance in how to evaluate language learning applications.

Mobile devices are changing the educational landscape and now, teachers want to leverage the use of these devices by implementing new classroom opportunities and evaluating language

learning skills. Reindeers and White (2010) state that such resources create learning opportunities for students. The need for incorporating tasks through the use of mobile devices is more and more common for teachers, a fact that has been represented by the Kim and Kwon framework. Based on this framework, it is possible to evaluate MALL and CALL since it builds upon the foundation outlined by the Dow Hubbard framework (2009) -another framework that only focuses on computer-based learning, in order to have a relevant evaluation methodology when mobile devices are being used in the classroom. Kim and Kwon (2012) develop a framework to evaluate how pedagogic or academic apps must be. This framework contains four criteria to assess applications. The first is named target learners which observes in detail aspects to analyze learners to get information about their age, their hobbies and interests and level of language. Another criteria in this framework is the content of the apps that focus on observing the structure, the extension of each one and the skills more developed. Pedagogic characteristics are also observed by this framework such as: Learning theories, the type of exercises and the way instructions are given. Finally, reputation of the apps is another item of the criteria and it makes reference to the numbers of downloads, the positive or negative comments of the users that could show how reliable the application might be for learners.

Kukulska Hulme and Shield (2008) noted that when Mall is compared to CALL, its use of portable devices helps to develop learning processes more easily.

Table 6

Analytical framework Kim & Kwon(2012).

TARGET LEANERS	CONTENT AND FOCUS	THEORETICAL FRAMEWORK	REPUTATION
Age	Grammar	Learning theories and paradigms, Instructional activities, Individual exercises	Download rating (teachers need to make sure if the type of application or activity in CALL is reliable)
Interest	Language skill	Activities	Comments
English level	Topic	Quiz	Recommendations

In order to evaluate a task using a Computer Assisted Language approach (CALL) Kim and Kwon suggest to apply some essential criteria that responds to the contexts needs so the idea by using CALL in the classroom is to foster the learning language properly. Furthermore, language learning theories have been studied for many years and they facilitate a better understanding of

language acquisition, in the next pages this topic will be developed in detail. For this case Kim & kwon (2014) was used to analyze the pedagogical features of Duolingo that was applied at the beginning of this study to analyze if this application was appropriate to use for academic purposes in our context. (See the section 4.5 Dashboard pedagogical characteristics.)

The next section contains a wide language concepts and approaches.

2.7 Language concept and language learning

This section provides a general overview of the approaches of languages that can help us to improve the teaching practice by using an appropriate use of material and use of the language to specific purposes. It is important to mention that at the end of this chapter you will be able to find what language approaches are connected with the present research and also the authors indicate how these approaches contributes in the use of Duolingo.

There are various theories that educators can use in the classroom when they teach students a new language. This section helps us to have a better understanding in our thesis because language learning theories emphasizes how language is used to learn and how learners internalize knowledge.

Moreover, language learning theories are connected with our research because in order to students develop self- monitoring using Duolingo, they need to be able to make a language cognitive process to learn new words and finally include them in their speech.

The first theory that will be examined is constructivism, which is defined as the theory of how learning takes place (Henson, 2015). That is, constructivism encourages students to construct new language learning skills using previously acquired knowledge along with the new information presented to them by the teacher. The second theory to be explored in this section is Cognitivism. The cognitivist theory examines how students think, how they understand new material, and subsequently, how they know about languages within the context of the world. (Bandura, 2005). Both of these theories can serve as valid alternatives to the dated theory of behaviorism and can help students excel while they are learning a second language. By examining both of these theories closely, we can determine the advantages and disadvantages of either theory in order to determine the best classroom scenarios to implement these theories.

2.7.1 Scaffolding and ZPD

This concept was developed by a constructivist psychologist Vygotsky. “The zone of proximal development is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.” (Vygotsky, 1978, p. 86). According to this previous definition, children may use the help of different people that with their skill or experience would help them to achieve tasks.

On the other hand, Wood, Bruner, and Ross (1976) introduced the word scaffolding which is a process "that enables a child or novice to solve a task or achieve a goal in the learning process. Likewise, according to Vallejo, García, and Pérez (1999), the relation between development and learning are very important for pedagogical practices and Cole (1983) also notes that ZPD

concept shows that children can participate in activities that may not be comprehended completely but, they might be enhanced with the help of others. Generally ZPD is given between teacher and student, but it is also possible among learners. Some characteristics developed in ZPD, according to Onrubia (1999) are: Explanations of concepts or procedures by students, discussions taking into account different point of view about contents, and the resolution of possible problems with help of others.

2.7.2 Constructivism

Constructivism theory is starkly different from the traditional behaviorist approach. Vygotsky (1978) asseverates that it focuses on the idea that knowledge should be provided by the learner and not by the teachers. According to this author, it seems that constructivism is a dynamic process in which learners will be responsible for their own learning. Salomon (1994), points out that constructivism takes place also from our innate personal experiences and that each learner constructs his or her own way of thinking based on their interactions. In the acquisition of a second language, constructivism emphasizes the importance of students' building their knowledge by monitoring their learning process, so they can build a conceptual structure, reflection and abstraction on their own, without the assistance of the educator. While behaviorism approaches emphasizes changing behavior through rewarding correct performance, constructivism theorizes about how human beings create systems for meaningfully understanding their worlds and experiences. According to Murphy (1997), knowledge could be acquired and learned from different experiences in our life. Salomon (1994), categorizes constructivism into three types: radical constructivism, moderate constructivism, and rational constructivism.

Radical constructivism is related to the idea that experiences help support a general understanding which learners can use to interpret events. Moderate constructivism emphasizes the importance of teachers educating students on how to interpret events and different situations in the real world, so that students can build their own interpretation of the world based on their personal experiences and situations. Rational constructivism recognizes that knowledge is a dynamic and changing process which allows students to take an active role in achieving their own level of interpretation and knowledge. This is another way about how people learn.

It is important to mention that the school where the research study is developed has a personalized education it has its bases in constructivism

2.7.3 Cognitivism

Jean Piaget (1896 -1980) is one of the most recognized pioneers to define the role of learning within the cognitive internal process. The cognitivist theory was developed after behaviorism in the 1960s. Cognitivists focus on the inner mental processes which emphasize the way learners learn and the capacity that they learn in order to resolve a problem. This theory explores some important aspects of knowledge such as thinking and memory and examines the idea that learning is viewed as a change in the learner's mind which is represented within their mental constructions. Cognitivist theory is different from the behaviorism school in the belief that language and learning can draw inferences and results from a mental and internal cognitive

process which evokes a response, whereas a behaviorist psychologist views learning is the response from an individual's behavior. Cognitive process is based on the theory that the learner's mind is like an indicator which demonstrates their skills and knowledge rather than focusing on different changes of behavior caused by responses to stimuli. Cognitive learning theory highlights the importance that learning occurs within internal individual processes. Jean Piaget (1962) affirms that learners must be able to construct their knowledge because they build upon learning from experiences around the world related to what they already know. He also mentions that oral interactions have a major effect in a person's cognitive development. Piaget (1962), points out that there are levels of development of cognition process: schema, adaptation, and stages of cognitive development. To Piaget (1962), these are the three main components that have a positive impact in the acquisition of learning. For example, he defined that in order to achieve knowledge in any field, a person's cognitive process must go through the schema stage, which is building the different models and representations of the world, and how we perceive it. Piaget (1952) states that "a cohesive, repeatable action sequences possessing component actions that are tightly interconnected and governed by a core meaning." (p.7) According to what Piaget said, the schema stage helps classify knowledge and that each component of knowledge is related to the different aspects of our experiences in life. Another important factor in the cognitive process is adaptation, which occurs in two phases called assimilation and accommodation. Piaget (1962) explains that during the assimilation stage, learners are able to take new ideas and knowledge and are in the process of recognizing what they are learning, so they can locate their new knowledge with each one of their schemas. Accommodation is the

second stage where, according to Piaget (1962), learners mold their new ideas and represent their schema with their newly acquired meanings. In order to further the development of cognitive theory, Piaget (1962) proposes four important stages of how knowledge is acquired. The first stage, the Sensor Motor stage, occurs between the ages of 2 to 4, during which children are not able to conceptualize different situations. This stage represents one of the most important experiences among the stages of child development in regards to the cognitive process. The second stage is the Pre- operational stage which occurs between the ages of 2 to 7 years in which children accumulate new information and experiences about the world which they conceptualize in order to increase their skills and knowledge within their cognitive process .The third state is the concrete Operational state. This is the stage in which children start developing ideas and opinions about their knowledge and begin assessing judgment on that knowledge. According to Jean Piaget (1962), this cognitive process starts around the ages of 7 to 10. The final stage is the Formal Operational state in which children have acquired a very advanced development their cognitive processes that allow them to be able to think in a similar manner to an adult.

2.7.4 Behaviorism

Behaviorism is a learning theory founded by Skinner (1938), which details that observable behavior is caused by stimulus response from external factors. The Behaviorist approach also emphasizes that learning a new language requires a set of different habits. Ellis (1990) states that learning is impacted from the real world where learners try to partake in any type of participation. It seems that personal experiences have a major influence on behavior, which is

demonstrated by the fact that different experiences and different environments affect the learner's behavior, either causing a positive or negative reaction. Brown (1987), explains that learning is characterized as associative, which means that different habits and stimuli exist during the learning process.

2.7.5 Innatist theory

The Innatist theory is related to the acquisition of the first language of a learner. It mentions that the capacity of human to understand the grammar and structure of their mother tongue comes from a biological ability. The biggest proponent of this theory is Noam Chomsky (1972), and according to him, children are able to learn the first language through imitation. The innatist theory suggests that children construct grammar and meaning by practicing communication rather than focusing on the explicit rules of syntax.

Chomsky (1972) stated in his book "Language and Mind" that language is innate, and we as humans have the ability to develop language skills. This theory points out that language is derived from an innate mental process, which highlights that innate mental processes are not acquired through learning but in fact available at birth. Methods have an important role in the teaching of the English language because they allow for the development of a higher influence in the teaching practice as well as the manner in which students learn (Chomsky, 1972). According to Asher and James (1982), a method constitutes a variety of techniques which can be used by teachers to implement different teaching styles using various strategies. In order to make the learning process simpler and more practical, the teacher's methods help students build

confidence and develop a high level of motivation to overcome their learning gaps. Thus, teachers need to work carefully when implementing their chosen methods, since they have to reconcile with many classroom variables like age, genre, attitude, out of personal experience, etc. Educators must apply effective teaching methods in order to develop the proper approaches and strategies so that students can have an active role within the learning process. According to freeman (2000), the different methods of English teaching can help teachers acquire a clear understanding related to techniques and principles they can use to help overcome the educational challenges they face.

The Cognitive approach to language learning acquisition plays a very important role since it focuses on mental activities of the learner and helps them develop active participation in their own learning. For example, during the learning of a second language, the cognitive process according to (Deci and Ryan, 1985) allows learners to develop learning strategies such as metacognitive and meta memory, which is completely matured when learners organize and classify their information and are able to evaluate their capacity of knowledge and self-regulate what they have learned.

The cognitive approach to learning requires some new learning strategies in which learners take an active role in their learning process, and these strategies are totally cognitive in nature like taking notes, completing learning drills, and many others. In view of the cognitive approach to learning, the notion of effective language learning requires the active involvement of the learner within the process. This approach emphasizes effective strategies where learners should

encourage themselves in the acquisition of a new language (Deci and Ryan, 1985). It's mentioned that intrinsic motivation is one of these factors that can have a profound impact on the learning process.

2.8. Language approaches

2.8.1 Grammar translation method

The grammar translation method is one of the oldest teaching methods that has been used in classical and traditional teaching. Chellapan (1982) mentioned that translation can help students to increase the awareness of the target language.

It was originally used to teach the written form of the Latin and Greek languages and has been particularly effective since these languages do not require learners to develop any communicative competence. Therefore, this method has been used for many years to teach a second language with focus primarily on the grammar rules, requiring students to use memorization as a learning tool.

2.8.2 Total physical response

In the total physical response method, educators teach a second language by giving students specific instructions which they must follow using their body responses.

James Asher, a professor of psychology, developed the method around the decade of 1960. Asher (1969) states that this particular method is based on the idea that human beings learn a

language by observing nonverbal language and then they internalize that knowledge quickly. With TPR method, students are asked to follow commands and teachers are requested to give them movements to follow. This method has also been commonly applied for students who have cognitive issues that impair other types of teaching methods.

2.8.3 Silent way

This method of language teaching was proposed by Caleb Gattegno and developed during the 1970's. It exposes the idea that learners are able to develop their own concepts and models while teachers should remain in silent in order to foster a positive environment for students to build their own ideas. One of the silent way method's main features, according to Richards and Rodger (2001), is that it focuses on the learner's ability to resolve their own problems within their educational setting. The teacher's role in this method is to be a mediator and to have less participation in correction and repetition of other teaching methods, allowing students to develop more autonomy in their knowledge.

2.8.4 Audio lingual

It is a method of language teaching known to overcome all the issues connected with the structure, phonemes, morphemes and syntax that according to Hadley (2001) address teachers to implement drills dialogues and increase conversation.

According to Fries (1945), language teaching should be completed by using drills of basic patterns. The audio lingual method emphasizes on pedagogical mechanics to minimize the gaps

in the language. The most practiced resource is to provide conversation related to daily life which it involves a proper pronunciation, sound where the students should memorize and to follow the instructor's intonation as they can. According to Richards and Rodger (1987), teachers must provide enough drill task in order to make students active and motivated.

2.8.5 Suggestopedia

The Suggestopedia method was introduced in 1970 by the Bulgarian psychotherapist Georgi Lozanov. The main objective of this teaching method was to understand how the human brain works in language learning. The Suggestopedia method aims to develop conversational skills while avoiding the use of memorization strategies. This allows for a general understanding to overcome learning obstacles whilst learning a second language. One of the advantages of this method is that it allows the use of unique learning tasks in order to acquire the knowledge of a second language. Examples of this include creating a peaceful learning environment or introducing music to make the classroom fun and relaxed. Astutik (2019), says that Suggestopedia is the method which uses music or videos in teaching learning process. The use of Suggestopedia in teaching learning speaking is much needed; Suggestopedia can motivate more of students' mental potential to learn and which obtained by suggestion because with this method the teacher can give relax situations, so the students can get the material easily.

2.8.6 Task-based approach

Task based approach is a language teaching approach with the main objective of assigning student tasks related to real and authentic situations of daily life in order to improve upon the vocabulary of the second language. Task-based approach focuses on providing a variety of tasks emphasized on communication. Therefore, all these tasks are related to the real world and the use of the language is incorporated using four skills in the target language. According to Richard and Rogers (2002), the task should include enough real life input from classroom activities like discussion, story-telling, and role-playing.

2.8.7 Skills-based approach

The skills-based approach helps learners develop their oral skills and promotes a better understanding of language through abilities like reading and writing, this method requires that teachers conduct a series of assessment and practice to improve oral interaction in the classroom. A skills-based approach is used for language teaching which emphasizes the four skills of instruction within the target language so that, students are able to understand and communicate using proper input. A skills-based syllabus is a set of language objectives that can be learned by mixing the four skills that are necessary to understand and produce the spoken language. The role that learners acquire with a skills-based syllabus is mastering communicative competence within the classroom setting. Compared to the grammar syllabus, it is not so different. For instance, a grammar syllabus is focused on the rules that need to be taught to students, while the skills-based approach is focused on teaching those same grammar rules but using oral

interaction. According to Chastain (1976), the term skills is used to understand the content of what is being taught during language learning. Implementing this syllabus would help learners develop confidence in fostering oral skills as well as promote a better understanding of language through abilities like reading, writing, listening, and speaking. This method requires that teachers conduct a series of assessments and practice sessions to improve oral interaction in the classroom. Breen (1984) affirms that a syllabus is needed in order to achieve learning goals within the classroom.

Checking the language approaches gave us more clarity on the selection of Duolingo as a tool to reviewing self-monitoring in the target group because application and technology could provide some features of others approaches as the previous mentioned in this paper. For example, a different and relaxing environment as suggestopedia recommends or focus on enhancing some skills as skills based approach suggests. Language approaches could improve teaching practice and perhaps educators become more aware of the necessities of learners in the classroom. All these approaches foster methodology and provides foundation to set up new teaching methods.

After having mentioned all theories, it is important to say that we found two approaches that have connections with this research, which are cognitivism and behaviorism. It can be notable that Duolingo foster in the students the capacity of learning new words, so they have to internalize new vocabulary in order to move on the level of the application. Jean Piaget (1979) stated that a cognitive process is given by thinking and memorize. According to the previous

citation it can be said that Duolingo let the students promote cognitive process by memorizing a new range of words. Behaviorism approach can be reflected in the use of Duolingo in practical way, Skinner (1938), mentioned that behaviorism approach lies in new set of habits when learners have been impacted by external factor. It can be seen from students spend more time practicing in the application, because they want to obtain more reward, medal and coins.

For the next sections it will be presented the methodology that is going to be used for this study.

Chapter 3. Methodology

In this section, we have selected to focus our research on a qualitative approach since the case study is a method that allows us to adopt a qualitative approach within the context of our research. The goal of employing the case study method is to observe how a particular group of students, a sample, develop or not their self-monitoring strategies as they use Duolingo, as encouraged in their English class. The implementation of this research is done using a qualitative research method while also incorporating the case study methodology. In order to ensure the validity and reliability in this research, some strategies that have been previously utilized in other qualitative case study approaches will be included:

- Data is gathered through surveys and interviews taken from sixth grade participants.
- Data is gathered using transcription from interview.
- Data is gathered using school Duolingo dashboard in order to monitor students assignments. (See results sections)

The objective of our qualitative research approach is to analyze and explain student learning methods and how students are able to self-regulate their educational tasks while completing Duolingo lessons. A qualitative approach is extremely beneficial since it allows us to be more specific with the details for our research, which in turn assists in our analysis of evaluation. Lichtman (2006) states that a qualitative study helps to define research methodologies and allows the research authors to contribute to their field of study from their own personal style and point

of view. Therefore, the qualitative method lends the researcher considerable independence in design and scope since the research investigator's perception is taken into account. By utilizing the case study methodology, researchers have a unique advantage that allows them to delve deep into the understanding of many fields of study. For example, with this method, a researcher can explore activities, processes, and events and, according to Creswell (2006), the case study methodology permits researchers to explore the details of data collection. The Case study method is a qualitative research approach that focuses on individual or group research that, in one way or another, lets the researcher explore naturally occurring phenomenon in their field of study in order to answer questions of how and why things occur naturally, and the way they do. When comparing the ethnography method with the case study method, we can see contrasts that exist between the two. For example, Nunan (1992) states that case study methods only go deep in what the researcher wants to show or consider in his study while the ethnography method is applied for analyzing many issues that are found in the population.

At the beginning of this study the teacher of 6th grade introduced students to an app to practice English and different languages in a different forms. The teacher explained students how to become part of schools Duolingo. Students entered to the application and signed in with the link given by their teacher and joined to the group created.

Taking into account some topics that learners of the target group were studying at that time, teacher programmed assignments related to those topics. The application had the mission of

sending a message to let learners know about the homework. Even though the teacher used to set as a homework some activities in Duolingo dashboard during face to face classes.

These activities had a value of 15 % of the final grade. Teacher constantly talked in classes about the grades that they could obtain to improve their academic results in the subject. So that, learners tried to achieve the goals and some of them could obtain increase their score to get extra points in the final grade at the end of the term.

The educator could notice during this period of time the traffic of students using the application. From time to time teachers informed with pictures who were the students with more score, gave congrats to those with good traffic and encouraged all the students to use Duolingo in order to improve their vocabulary for the exams. (See appendix G)

The idea behind giving students a tool to practice some of the themes given in class was simple to foster them to increase their responsibility in order to self- regulate their own learning.

We wanted to monitor if learners were able to develop self-monitoring and autonomy in their language learning.

Data collection

One of the most valuable techniques used in the project is the method of data collection. In order to decide the kind of instruments needed for a particular study, the researcher needs to take into consideration the type of methodology being employed as well as the study's purpose and objectives and whether or not the suggested data collection method adds coherence to the

investigation. Nunan (1992) affirms that there exists a variety of instruments with multiple purposes and include data collection tools such as surveys, interviews, or direct observation.

3.1 Qualitative approach

The objective of our qualitative research approach is to analyze and explain student learning methods and how students are able to self-regulate their educational tasks while completing Duolingo lessons. A qualitative approach is extremely beneficial since it allows us to be more specific with the details for our research, which in turn assists in our analysis of evaluation. Lichtman (2006) states that a qualitative study helps define research methodologies and allows the research authors to contribute to their field of study from their own personal style and point of view. Therefore, the qualitative method lends the researcher considerable independence in design and scope since the research investigator's perception is taken into account. Qualitative approach compared to quantitative tends more to answer events and describe situation with how because this approach is focused on providing a deep analysis and an interpretation of data. Lee (2008) affirms that one of the most remarkable advantages of this approach is that it provides numerous tools to implement and give a holistic understanding of the data.

Qualitative approach helps the researcher to obtain information about people's experience and during the whole research process. It provides information about human beings in a determined social context. Such information is related to values, opinion, and beliefs. This kind of approach works on gathering information from different qualitative instruments where the human side from participants can be an essential factor within research. In contrast to

quantitative approach, Bernad (1995) claims that qualitative research seeks to explore the whole cause of the phenomenon while quantitative is focused on verifying the hypotheses of phenomena with numerical statistics. The type of data can be obtained from different tool such as focus group, interviews, survey, and document analysis.

3.2 Case study

A case study method is one of many ways to do a research. This method is qualitative in nature and one of its main features is that it helps the researcher to understand social matters from a small group to a community. For Yin (1994), a case study explores a specific phenomenon from a real life context.

In order to understand some external and internal factors in a particular context, it is important to bring up that methodology and paradigm to be independent even though both of them work together. It can be noted that a qualitative methodology means that necessarily comes with an interpretivist paradigm. However, a qualitative approach can be applied jointly with positive and critical, as well. The Case study method allows researchers to analyze data collection using many techniques such interviews, documents reviews, observations, and surveys. By utilizing the case study methodology, researchers have a unique advantage that allows them to delve deep into the understanding of many fields of study. For example, with this method, a researcher can explore activities, processes, and events and according to Creswell (2009), the case study methodology permits us to explore the details of data collection. The Case study method is a qualitative research approach that focuses on individual or group research that,

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3.3 Instruments

For this qualitative research was necessary to implement three essentials known instruments such as interviews, surveys and post survey to gather data collection. (See appendix b, c, e, f). The first instrument was interview applied into the classroom in order to see students' progress in Duolingo application and if the application fits with target group. Students could answer questions about the units that they were going through and if they had doubts about the application. During these interviews, educators called student by student to obtain information and record it to make transcriptions later. In that way interviews were carrying out as a first step.

After a time Survey was applied on line, but the whole questions in this section were connected to the interview with the objective of verifying how much assertive the oral interviews were. For the surveys was used the website survey monkey and the data collection were organized systemically.

A post survey was applied to verify if the students continue working on the Duolingo application after the study finished in order to know if they were able to develop self-monitoring in their English learning outside the academic context.

One of the most valuable techniques used in the project is the method of data collection. In order to decide the kind of instruments needed for this particular study, the researcher needs to take into consideration the type of methodology employed as well as the study's purpose and objectives and whether such as types of data collection was the more adequate for this socio critical case study. Nunan (1992) explains that there exists a variety of instruments with multiple purposes and include data collection media such as surveys, interviews, or direct observation. A variety of instruments were implemented during the study to the 14 students that participated, and taking into account the main goal of qualitative approach which means that the goal of it is to describe the context and role of their participants. Those instruments were interviews and surveys. A lesson plan was implemented in order to know the students' progress through the use of Duolingo. The lesson plan provides data about the types of activities that the students need to complete.

3.3.1 Interviews

Interviews are a valuable way to collect information and allow an interactive interaction between two or more people. According to Borg (2003) interview is one of the most powerful tools used in attempting to understand people's points of view, beliefs and attitudes. The interview is an easily applicable instrument that can help the researcher understand unique

participant ideas and perceptions. There are several ways of interview methods including one that is qualitative method in nature known as focus group interviews. For the purposes of our study, Semi-structured interviews with open questions have been selected as the interview method with the main objective of allowing students to talk freely about their experience with Duolingo. Nunan (1992) states that one semi structured interview can provide a myriad of opportunities that enables the researcher to explore a research question by analyzing the variety of responses that are received. The purpose of this interview was to identify the students' Duolingo experience and all of them were opened-ended questions, and its main objective was to explore to what extent students use Duolingo for learning the second language. Conducting interviews can be sometimes tiring for the researcher since this type of instrument according to Singleton & Straits (2009) can be highly cost on time. Thus, it leads a large sample to collect information. For this case, the research was conducted from a very general flexible qualitative approach since some important and recognized tools were applied in order to ensure validity in the data. It is important to mention that some authors advocate the combination of the qualitative method as a research to reduce the non-response error, for example, a researcher implements questionnaires, but the researcher can support unclear responses found in the instrument and compare them with those given in an interview. The interview applied in this study had the purpose of gathering information about student's methodology using Duolingo application, schedules, how students feel with the use of the app and its design. (See appendix c).

3.3.2 Survey

Surveys in research are used to collect data about a specific topics. For this project, the type of survey that will be used is known as survey Questionnaires, which uses open ended questions to get an elaborate understanding regarding the effect of Duolingo lessons and how students independently managed of their Duolingo curriculum. It is important to highlight that according to Creswell (2006), open-ended questions are used in order to provide opportunities to the participants by responding freely without being restricted to predetermined choices that may potentially add bias to the participant's response. Survey questions are classified as two types: Open-ended questions which enable the participants to independently respond to each question, so they can use their own words to convey their responses, and Close-ended questions force participants to select from a list of predetermined responses. A common example of this are multiple choice questions. The objective of surveys is to establish the degree of effects that the study has had over the sample group. One of reasons to implement survey in this research was to obtain information from participant using a valid and reliable instrument like survey, also to implement survey has a variety of advantages because this is one of method that allows to the researcher to recruit participants in easy manner and to apply other qualitative instrument. As it is considered by Check and Shcutt (2012), this type of instrument allows the utilization of other various methods of instrumentation. The survey conducted on this research study consisted on obtain information from the students to support data obtained in the interview, those questions were created thinking on fostering the relation between validity and reliability. (See appendix b)

3.3.3 Validity and Reliability

The study's aim is connected to these two principles of assessment, which can be applied to determine the level of evaluation that Duolingo possesses over the sample of participants. Cohen et al. (2007) states validity as basically concerned with "a demonstration that a particular instrument in fact measures what it purports to measure" (p.150). Dornyei (2007) explains that reliability is a characteristic of instruments; therefore, this principle should be analyzed from the results in order to verify its efficacy. Using these two principles of assessment is necessary in order to explore how the content of Duolingo fosters metacognitive strategies. In order to ensure these two principles, this research implemented some strategies:

- To measure the impact of the use of Duolingo in this context a lesson plan was implemented to know the students' progress
- Data collection was done through different qualitative tools such as interview, and survey.
- To enhance validity, the interview was recorded and notes from participants were taken.

3.3.4 Personal learning environment

As part of this case study a PLE was addressed to explore the student's needs and student's likes. According to Hernandez (2016) a PLE is described as a method that helps to organize the influx of information gathered during a study. In our research, a PLE is applied before starting our study so that, we could determine the application being used in our study, in this case

Duolingo, would fit with the coherence of our research. The PLE we implemented provided us sufficient data to select. Duolingo has been the application selected after the result of the PLE because it seems to be helpful to students who are interested in learning English as a second language. (See appendix a).

3.5 Analysis of qualitative data

A code is a type of qualitative research that is represented symbolically, like a word or phrase and is based on what has been gathered from visual data. The data can be coded in interview transcripts, observations, document analysis, field notes, and so on, to allow for the main research themes to be taken into account while surveys were conducted. In order to complete this stage, the interview transcripts had to be read carefully in order to understand the student's perceptions and feelings. Once the themes were studied and analyzed from the data, the researchers could begin the process of conceptualizing those data. Strauss and Corbin (1990), indicate that this is completed by comparing utterances and data and given names. It is important to mention that there is a closely knit collaboration between data collection and data analysis. Krueger (1994), mentions that it is a combined process that allows for an interpretive process.

It is important to highlight that a case study which goes hand in hand with a qualitative approach allows us to gather data through qualitative tools and then categorize them. Bogdan and Biklen (2003) affirm that the main objective of a qualitative study is to analyze in themes and concepts. Categorization provides a deep analysis between the different patterns that can be taken from the focus of a particular study. This can take place when the researcher organizes the

data in a coherent manner and identifies the most relevant, conceptual categories related to the research. It is necessary to analyze the data that has been acquired from conducting surveys and interviews since most of them contain open-ended questions and are categorized in relation to the results of the transcription those will be analyzed with the Zimmerman scale (2014), Snyder (1974), Chen & Chiu (2006) and data driven scale (see table 2, 3, 4, 5)

Chapter 4. Results

Based on the methodology of this research this section explores how the experience of using Duolingo was for each participant of this study, the usability of the application according to the view of the student, how strong their organization, goal setting and transformation of their habits were during the experience. With the interview, survey, and the results of Duolingo dashboards, we are trying to determine the extent of contribution that the application could provide to develop self- regulation towards the group of sixth graders with an A1 level of English and try to measure a self -regulation degree through Duolingo dashboard results.

The findings are presented in this section in relation with the research questions of the study and are derived from students´ answers in the interview, survey and Duolingo dashboard report. Consistent with the case study supporting this research, the results are presented in the following way: First, the results of eleven interviews to students who participated in the study because we wanted to obtain information in detail about students´ schedules, changes in their routines and opinions about their experience using the application. Then, the answers of six learners through a survey that tries to figure out if students were really aware of their new habits, intrinsic motivation, and how they felt with the material of the app to finally support answers of the interviews and check if there were coincidences or gaps in the interview.

Finally, Duolingo dashboard provides the details related to the time and date students use to practice with the app and clarify what the academic features of the app are. To categorize the

answers of the students Zimmerman scale, Snyder scale, and data driven scales were taken into account to classify them.

4.1 Interviews

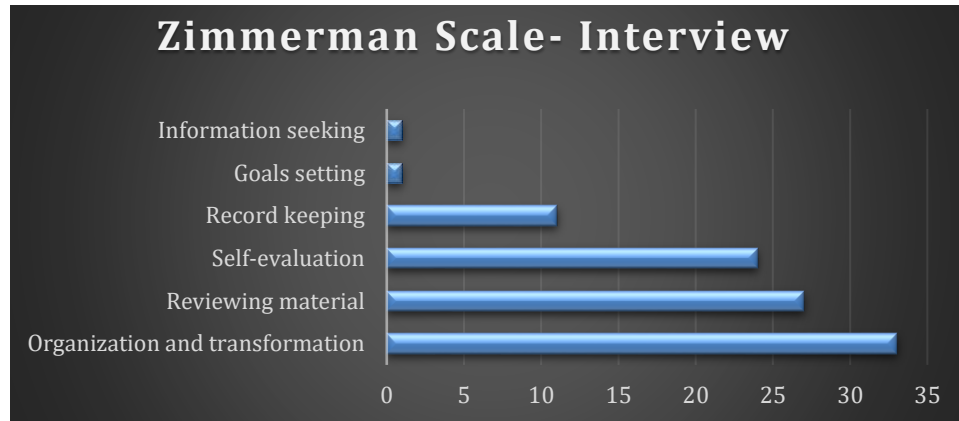


Figure. 1. Categorization interview with Zimmerman scale. (See appendix c).

In this previous figure the results of the categorization of the interview according to are observed according to Zimmerman Scale. The chart shows the quantity of the answers that were classified according to the meaning of the categories which are: Organization and transformation, reviewing material, self- evaluation, record keeping, goals setting and information seeking. Below it can be observed the exact numbers of categories found in the results of the interview.

Organization and transformation	33
Reviewing materials	27
Self-evaluation	24
Record keeping	11
Goal Setting	1
Information seeking	1

Table 7. Results of Zimmerman scale-interview

The graph in figure 1 shows that students perceive that they have changed their organization to access Duolingo assignments and transformed the way they used to study in order to fulfill the requirements of the English subject at school. In the interview 33 expressions of the students indicate the changes they were aware of. For example for the question ¿Cuándo ingresas a Duolingo? ¿En qué momento del día? (At what moment of the day you login to Doulingo?). In the interview number 11 the student answered “Cada 3 días en la tarde como a las 6 de la tarde” (2 times per week at 6 pm) or for the question ¿En qué lugares utilizas la aplicación? (Where do you use the app?) The student of the interview number 8 answered “En el cuarto para concentrarme mejor” (At my room to get a better concentration). Those answers might mean that they are clear with what aspects they need to change in their regular life in order to complete their assignments. The second categorization more distinguished got a total of 26 expressions detected in the interviews and were those related to reviewing the material. In order to answer the questions they started to reflect on the things they remember about the material. For the interview number 10 to the question ¿Te gusta la recompensa que ofrece la aplicación? (Do you like the reward the app offer?). This student answered “sí, porque nos ayuda a resolver nuestras

capacidades y aprender muchas” (yes, because it helps us to solve our capabilities and learn much more). Furthermore, the answer to the question ¿Usas lo aprendido en Duolingo en la clase de inglés? (Do you use what you have learned at Duolingo, at your English class?). In the interview number 4 was: “Sí, desde las tareas y las unidades” (Yes, on homework until units). Perhaps they remember the lessons that practiced in Duolingo and associated them with the content of the classes at school. The third more registered categorization in the interview by the Zimmerman scale is self - evaluation with a total of 24 expressions that shows how students reflect on the possible changes that could happen on their regular life as students. For example, the answer to the question in interview number 9: ¿Cómo te ha parecido la experiencia de Duolingo? (What’s your opinion about the experience with Duolingo?) “Buena porque o sea me ha servido para recordar” (Good, because it has helped me to remember). Another example is the next answer for the question in the interview number 7: ¿Has implementado lo que aprendes en Duolingo durante las clases de inglés? (Have you used what you have learned at Duolingo during the English classes?). “Si he aprendido muchas palabras nuevas” (Yes, I have learned a lot of new words”). As the answers show students could be thinking on the possible benefits using the application or could be matching what topics they learned and remember about the regular classes and could practice them with the application. Record keeping was registered in 10 expressions in student’s answer it could be noticed in the question: ¿En qué nivel te encuentras? (Which level are you in?). Each student answered differently according to their progress in the practicing with the

application. The most important here is that students were able to remember the level that they were at that time in the application, the next are some of the answers from the students:

¿En qué nivel te encuentras ahora? “*En la de los viajes.*” (Which level are you in now? “*In the trips one*”).

¿En qué nivel te encuentras ahora? “*En la de los alimentos.*” (Which level are you in now? “*In the food one*”).

¿En qué nivel te encuentras ahora? “*En el segundo nivel.*” (Which level are you in now? “*In the second one*”).

¿En qué nivel te encuentras ahora? “*40 y algo.*” (In which level are you now? “*40 and something*”).

Goal setting categorization is registered in just 1 expression of the interviews and it could mean that one student tried to set his own objectives to keep going in the units or lessons in the use of the application. It can be noticed in the interview number 8 for the next question ¿Te gusta la recompensa que ofrece la aplicación? (Do you like the reward that the app offers?). “*Sí, porque puedo avanzar mejor y así veo mis resultados*” (Yes, because I can make a better progress and in that way I can see my results”). Finally information seeking category was found in the next answer: ¿Tiene instalado duolingo en algún dispositivo, cuál? (Do you have installed Doulingo at any devices ?) -*No, yo solo ingreso a la web y ahí realizo mis actividades y con los links que me da la profesora yo entro.* (No, I just go to the website and

there I do my activities and with the links that my teacher gives to me I login), The previous answer shows that the student perhaps need to find the information through a link that the teacher provided to him or her.

Snyder.

The self- monitoring scale from Snyder 1974 is another scale that we used to guess if the answers in the interview could determine something related with self-monitoring. The category that could be detected in the answers of the interview was the next: I would not change my opinions in order to please someone else or win their favor. The previous category was noticed 7 times in the interview in answers such as:

Interview number 9:

¿Porque te habías demorado en entrar, porque eres uno de los que has estado activo siempre, pero al comienzo no? (Why did you take so much time to login, if you have been one of the students that have been active always, but at beginning you didn't?)

“Porque al comienzo no sabía cómo entrar, pero cuando entendí los pasos, me registré”.
(*“Because at beginning, I didn't know how to login, but when I understood the steps, I registered”*).

Interview number 6:

¿Te gusta la recompensa que ofrece la aplicación? (Do you like the reward that duolingo offer ?) “*Más o menos.*” (“*So, so*”).

Interview number 5:

¿Consideras algunas tareas fáciles o difíciles? (Do you consider easy or difficult homeworks?) “*Son demasiado fáciles*” (“*They are very easy*”).

¿Duolingo te ayudan comprender las clases? (¿Duolingo help you to understand your classes?) Si (Yes).

We decided to classify the previous answers with this category because we consider that the students might be honest in their answers, perhaps they did not try to please interviewers to be nice and give them possible answers they rather to listen to. With these answers they tried to show they realized some positive or negative things about the application or about their difficulties with it but, it was ok if they could express them in front of the examiners or interviewers.

4.2 Surveys

Surveys were applied in this research to support students' answers in the interview and try to verify if there were coincidences or gaps. The explanation to students' answers is presented as follows.

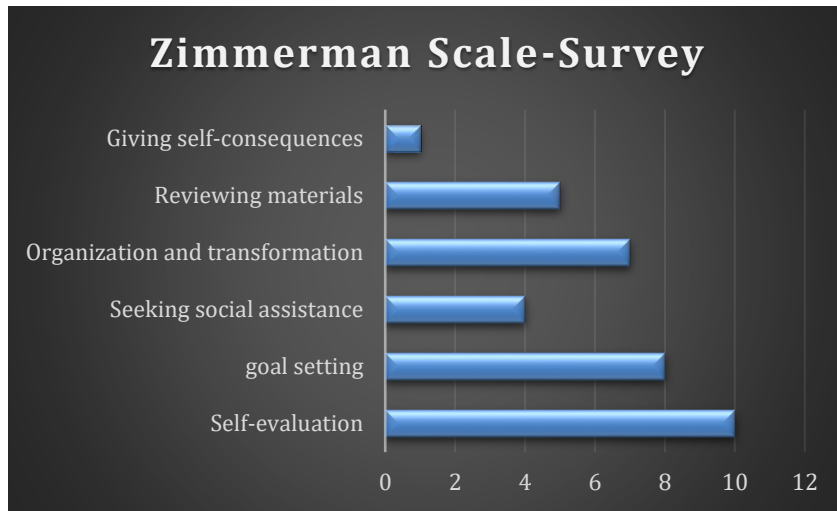


Figure 2. Results of Zimmerman scale-survey. (See appendix b).

Table 8. Issues

Self- evaluation	10
Goal setting	8
Organization and transformation	7
Seeking social assistance	4
Reviewing materials	5
Giving self-consequences	1

In order to verify students' answers and try to determine if we can find self- monitoring in the process of the students we applied an open survey through Survey Monkey there students could

have access to 10 statements that they tried to explain. According to Zimmerman scale (1990) applied for this survey we got the next categories and records registered for the Students' answers. A total of 10 answers related to self-evaluation were detected as such as: The previous answers can denote that students have the capacity to think on the activities they have done in order to analyze their actions and their answer could also mean they feel self-satisfaction for their progress and may do self-demands to continue enhancing their skills through the application. Another category with a high score according to Zimmerman scale is goal setting with 8 answers detected. The next examples can evidence the meaning of this category:

Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente (While I am using Dulingo, I encourage myself remembering that English learning depends on my making enough effort).

“Sí, porque quiero que este periodo me vaya muy bien y que cuando sea grande me pueda defender con ese idioma.” (“Yes, because I want to get excellent grades in this academic term, and when I grow up I also want to be able to use this language).

“Si sobre todo porque son retos personales que tú te pones”(“Yes, because it is about personal goals that you set yourself to achieve”).

For the previous statements we can read about how students interpret the quote and express what their desires and expectations could be with the future of their English level. One of the students seemed to have a positive attitude towards his or her future in English as a second language, and the other student may have recognized challenges to practice with this

application and, in some way, the learner possibly recognized that as far as he or she wants to continue practicing, he or she should advance. For the next statement the student could recognize the things that are going well with his or her process with the application and perhaps thinks on doing it better in future lessons and activities of the application.

Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.

(When I complete a lesson, I realize the things that I have done that have worked for me and I think of possible changes in the way I will do things next time).

“Si para que la próxima vez sea más rápido y pueda avanzar en el vocabulario.” (Yes, I hope the next time, it will be faster and I can advance in vocabulary”).

The next category with a high record in the students’ answer with 7 expressions is:
Organization and transformation.

Tengo un horario específico para ingresar a Duolingo (I have an specific Schedule to login Dulingo).

“En mis tiempos libres o cuando llego del colegio” (“At my free time or when I arrive school”).

Tengo un horario específico para ingresar a Duolingo (I have an specific Schedule for login Duolingo)

“No, solo cuando tengo tiempo libre y este sin tarea por que no me gusta pensar en las dos cosas al tiempo”. (“No, just when I have free time and I have no homework, becuae I don’t like thinking about 2 things at the same time”).

Students are clear with their Schedule and the time they could use to do Duolingo’s assignment as an extra activity.

The next category is seeking social assistance; particular expressions could be detected in the next examples:

Si surge algún problema para comprender algo en Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo. (If I have a problem for understanding something at Duolingo, I ask myself for solving it).

“Por medio de internet o preguntar a compañeros.” (Using internet or asking my classmates”).

Si surge algún problema para comprender algo en Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo. (If I have a problem for understanding something at Duolingo, I ask myself for solve it).

“Busco el significado de cada palabra, para poder armar las oraciones, cuando no entiendo algo, busco ayuda para que me aclaren dudas” (“I search the meaning of each Word, and then I can organize the sentences, and when I do not understand something, I ask for help to clarify my doubts”).

The previous answers show seeking social assistance because the students express in a clearly way that they try to find a solution if they have a problem and perhaps a common solution for them could be looking for help with other peers.

For reviewing materials 5 expressions in the student's answers were registered as such as:

Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine. (Before starting using Duolingo, if I consider that the app it is going to be boring, I encourage myself saying that I will make something that I like when I finish”

“A mí Me Pareció Divertida Y Me Gustaría Que Muchas De Mis Clases Fuera Mediante Estas Aplicaciones.” (“I believe it is funny and I would like that I could use these apps for many of my classes”).

Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura. (Before starting an activity at Duolingo, if I think is not useful or boring, I try to reminding myself of the importance)

“ Solo hago las más interesantes las aburridas las dejo de último.” (“I just make the most interesting homeworks and then the most boring at the end”).

Students need to remember and check the material to express how they feel with it and perhaps they could recognize some elements in the application that could have generated a feeling of satisfaction or check the material in order to revise aspects in the application so that, they thought that Duolingo is a fun tool. The last category registered of the

Zimmerman scale is giving self-consequences the example for this category reflects a possible reward or perhaps progress in his or her student level if the student continues practicing and enhancing skills through Duolingo.

Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente (When I am using Duolingo, I encourage myself remind myself that learning English depends on my enough effort).

“Sí y va ayudarme aprender Inglés” (“Yes, and it is going to help me for English Learning”).

The previous answers clarified some points that researchers need to verify. In what follows, the categorization of the survey with Chen & Chiu Scale (2014). That tries to analyze if the students look for solutions to their problems with the use of the application.

4.3 Survey according to Chen & Chiu (2014)

For the next session we are going to explain the results according to Chen & Chiu (2014) these categories, foster self-regulation because the students could become more aware about what they have to do to reach an academic goal. Besides, one of the objective of this survey is to establish the degree of effects that the study has had over the sample group.

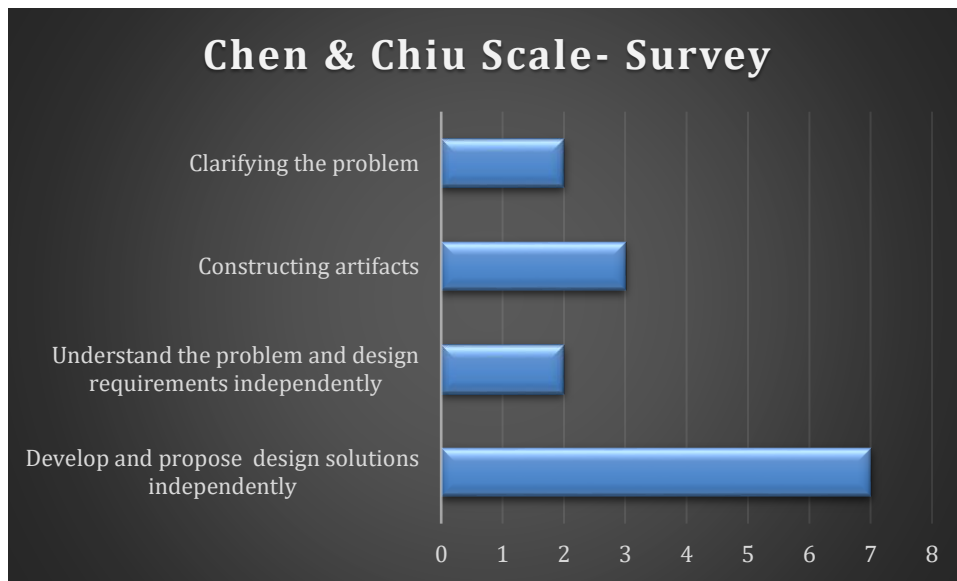


Figure 3. Results of Chen & Chiu scale-survey (See. Appendix b)

Develop and propose design solutions independently	7
Understand the problem and design requirements independently	2
Constructing artifacts	3
Clarifying the problem	2

Table 9. Categories

The survey was analyzed according to the author Chen and Chiu (2014) and the following are categories detected in the answers of the students.

The category with the highest score registered was: Develop and propose design solutions independently with 7 expressions, the next are the commentaries related with this category.

Cuando uso Duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme. (When I use Duolingo, I do it in a without distractions or noise environment to avoid to lose concentration).

“Lo hago en la sala muchas veces me desconcentro porque mis abuelos ven televisión pero siempre hago los trabajos. (“I do it in the living room, many times I lose concentration because my grandmas watch a TV but I always do my homework”).

Tengo un horario específico para ingresar a Duolingo (I have an specific Schedule for login Duolingo).

“No. Lo hago cuando recibo la notificación o cuando tengo tiempo libre” (“No, I do it when I receive the notification or I have free time”).

Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez. (If I don't understand some activity

at the app, I try to find the causes for avoiding to repeat the same the next time).

“Claro, yo busco hasta poder entender.” (“Sure, I search until I can understand”).

Students seem to organize things and try to find solutions if they find a difficulty. Another category registered on the answers of the students is constructing artifacts in this category learners are looking for a strategy to learn some content that she or he are trying to learn the next are the examples:

Cuando uso Duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme. (When I use Duolingo, I do it in an environment without distractions or noise environment to avoid to loose concentration).

“Cuando estoy estudiando inglés lo utilizo” (I use it when I am studying English).

Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente. (When I am using Duolingo, I encourage myself remembering that learning English depends on my effort).

“Si y va ayudarme aprender Inglés” (“Yes, it is going to help myself learning English”).

Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien. (When I have a lesson assigned at Duolingo, I verify if I have learned everything well).

“Si para que pueda recordarlo” (“Yes, then I can remember it”).

With 2 expressions detected in the students´ answers understand the problem and design requirements independently is the category that reveals learners could manifest self-

monitoring in their actions because they could be able of recognizing a negative situation for them and then, try to organize strategies that help them to overcome complications. The next expressions could reveal the sense on the category.

Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola

“no porque prefiero hacerla como clases normales porque solo 2 lecciones son necesarias por cada clase” (no because I prefer to make it like normal classes because only 2 lessons are enough for each class”).

“Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.” (“If I don’t understand some activity at the app, I try to find the causes for avoiding to repeat the same the next time”).

“Por medio de internet o la profesora para volverlo a intentar” (Using internet or the teacher then I can try again).

Clarifying the problem is another category of the Chen and Chiu scale, learners could express in their answers that are trying to find a form to create a solution for a difficulty with the application or perhaps they are trying to understand and explain what the interviewer tried to state. Examples about clarifying the problem:

Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.
(When I have a lesson assigned at Duoling, I verify if I have learned everything well).

“Si hay que revisarla” (“Yes, I have to review it”).

Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura. (Before starting an activity at Duolingo, if I think is not useful or boring, I try to encourage myself remembering to me the importance of learning it to approve the subject).

“Si por que la profesora nos quiso motivar haciendo clases en esta plataforma para que en el colegio nos vaya muy bien.” (Yes because teacher wanted to motivated us making classes in this app for getting good grades at school”).

For the way the students answered the question it can be perceived that they might consider Duolingo application useful for the learning of a new language. They also showed no hesitation at the moment they answered and the majority of them agreed that the use of this application could be helpful outside the class at practical for their life.

4.4 Data driven scale

As examiners we disclose a category in the answers of the interview. This is Cheer myself with future rewards and the expression is as follows:

Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine. (Before

starting using Duolingo, if I consider that the app is gonna be boring, I encourage myself saying that I will make something I like when I finish”).

“Primero veo como es y si me gusta lo hago. La primera vez que lo vi me resulto aburrido pero ahora es divertido justo hoy llegue a tener 300 xp.” (“First I see how it is and if I like it, I make it. The first time I saw it, I remember it was boring but now it is funny just today I got 300 xp”)

Table 10

Data Driven

Recognizing usability of the application	3
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The data driven scales are the results that we as examiners perceived on the answers of the interview. The answers that can denote recognition of the usability of the application are:

Recomendarías la aplicación? *Sí, claro.* (Would you recommend the app) (*Yes, sure*).

La recomendarías? *Sí, a mis padres y amigos para que aprendan otro idioma.* (Would you recommend it?) (*Yes, to my parents and friends for learning another language*)

4.5 Dashboard pedagogical characteristics.

Taking into account one of the specific objectives of this research which is to identify the academic characteristics of Duolingo dashboard, the researchers analyzed it according to Kim

and Kwon (2014) framework model. The next chart offers a detailed summary of the application and its academic features.


<i>Target Learners</i>	
Age	All.
Interest	Everyday life
Proficiency level	Beginner skills, intermediate skills, advanced skills.

<i>Content and focus</i>	
Topics	Intro, saludos, viajes, restaurante, gente 1, ropa, escuela, negocios, animales, amigos, colores, presente 1, comida 1, preguntas, el cuerpo, prepos, comida 2, fechas, profesión, adjetivos 1, presente 2, animales2, adverbios, hogar, escuela 2, pasatiempo, casa, negocios 2, gente 2, lugares, objetos, Determin, números, viajes 2, presente 3, educación, pasado, Verb inf, gente 3, pasado 2, vocabulario 1, Adj fles, pre. Perf, V. inf 2, Prono rel,

	<p>past perf, vocab.2, pron. Ref, naturaleza, gerundio, deportes, artes, comunicaciones, medicina, futuro, política, fut. Inm, ciencia, fut. Perfecto, negocios 3, v. modal, eventos, cnd perf, atributos, naturaleza 2, amigos 2, horario, comida 3, cocina, vacaciones, música, lugares 2, viajes 4, medicina 2, escuela 3, artes 2, ropa 2, relaciones, parientes, hogar 3, escuela 4, tecnología, negocios 4, trabajos, deportes 2, compra, hogar 4, ley, religión.</p>
Structure	2 to 10 lessons per unit.
Content Size	88 units
Focus	Skills-based approach

<i>Theoretical and pedagogic features.</i>	Duolingo builds critical language awareness since it shows in all the units the most common themes treated in life and helps to learners
--	--

	to become aware to acquire language knowledge
Learning theories	<ul style="list-style-type: none"> • The app is connected with some learning theories one of them is behaviorist, because most of the lesson plan encourage the learners to keep moving on its different levels through crowns, ingots and virtual coins to use it in the store. • From a constructivist view the app cognitive processes, construct knowledge in each unit.
Instructional activities	<p>Learners must build sentences, listen to words to organize sentences, take a dictation and make translation process.</p> <p>This construction focus on different socio-linguistic aspects.</p>
<i>Teaching support</i>	<p>This app does not focus on collaboration in terms of providing the oral interaction in learners but, it emphasizes individual metacognitive strategies as self- regulation rather than collaborative</p>

<p><i>Lifelong</i></p>	<p>Duolingo app allows students to monitor themselves by providing quick feedback at the end of each exercise done. Students also can make comments if they are not agree with their evaluation.</p>
<p><i>Instructional activities</i></p>	<p>Instructions in Spanish to switch with their mother tongue</p>
<p><i>Individual exercises</i></p>	<p>Practice, quiz, listening comprehension, pronunciation challenge, tests.</p>
<p><i>Reputation</i></p>	<p>Downloads 100 million.Average rating : 4.7 stars</p> 

Users comments

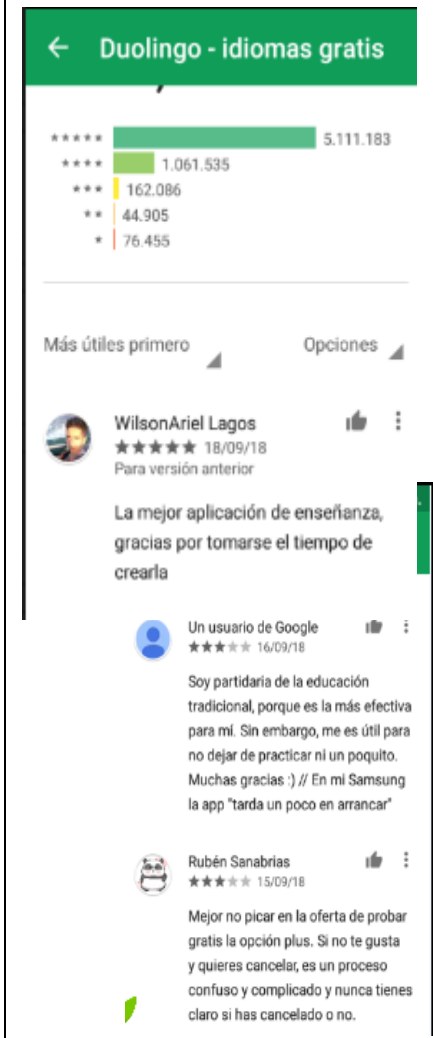


Figure 4. Duolingo Dashboard analyzed by Kim & Kwon framework.

4.6 Dashboard assignments and entries What was the instruction for students? Were they told to access it a given number of times? Was it completely voluntarily?

The next is the chart of entries in school Duolingo, the register of the students that participated in this Research. The chart is divided into three categories related to schedule of morning, afternoon and evening. The total of entries are 108 among all the participants. (See appendix f). We decided to assigned color yellow for morning activities, color red for afternoon activities and color black for evening activities. The graph shows a tendency of entries at evenings because the majority of the students entered between 6 p.m. until 11:59 p.m. 53 entries in total. The second schedule more used is in the afternoon session which is since 12 o'clock in the afternoon until 5:59p.m., with a total of 40 entries. Finally, the morning schedule is the less used for the student who had 15 entries between 6:00 a.m. until 11:59 a.m.

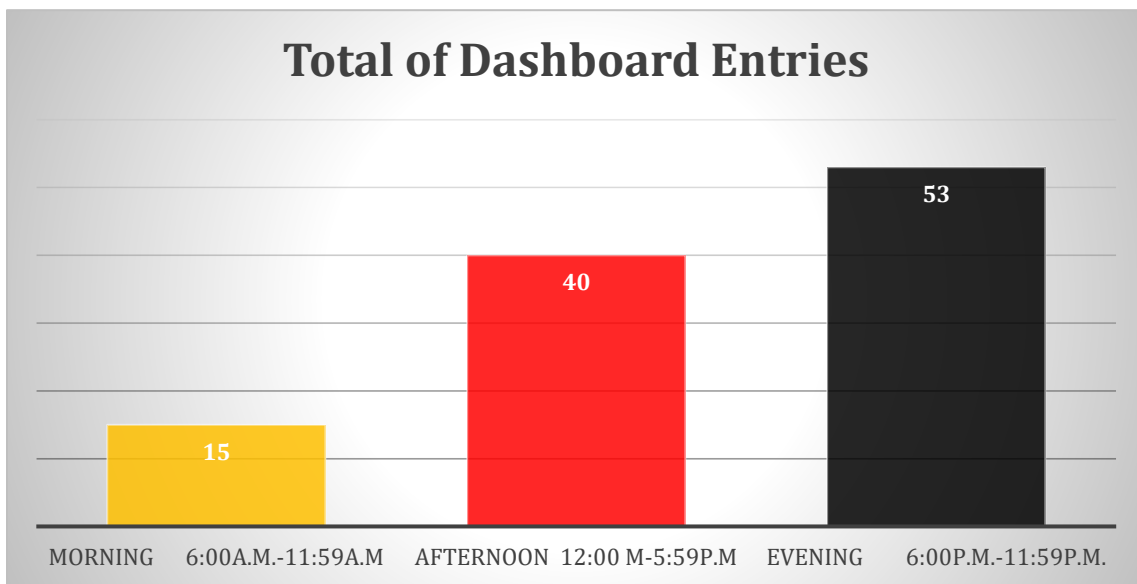


Figure 5. Students and the total of entries, days and time. (See appendix f)

Duolingo dashboard reveals to the teachers a clear organization about assignments. These are classified by colors. Color green are assignments that were done on time, color yellow are the assignments done late and finally the color red are the assignments that were not done.

The next is the chart of the assignments classified by colors:

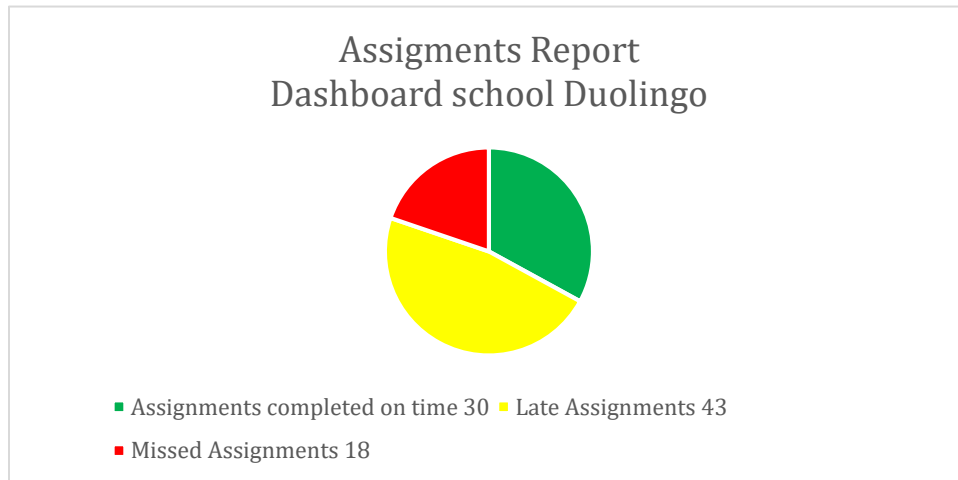


Figure 6. Assignment report Duolingo dashboard. (See Appendix g)

According to the graph the late assignments were more superior than the assignments finished on time this result could determine that even the assignments were not done on time, they could have a commitment with their goals which were practice and reach a high score in their final Duolingo report. On the other hand, students show activities since October 16th, with records of practices, from Monday to Sundays. The majority of the students used to practice during the weekdays, however, 13 of them entered at list 1 time on weekends. The next is the graph of the days of the week that students used to practice the assigned lessons.

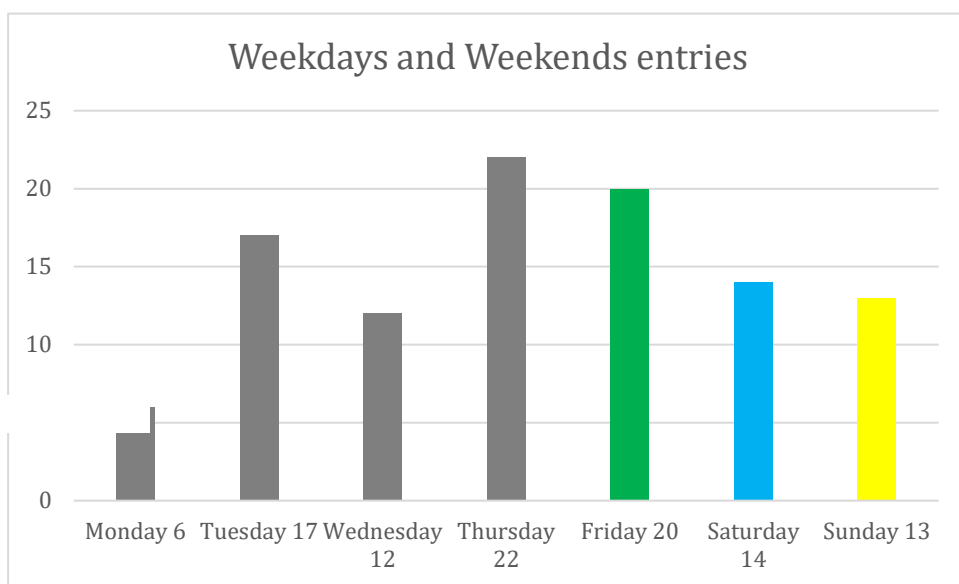


Figure 7. Dates entries in Duolingo. (See appendix f)

We assigned color Grey for Monday to Thursday activities, green for Friday activities, sky blue for Saturday activities and yellow for Sunday activities.

Registering the majority of the entries on Thursdays with 22 entries then, the second day with a high activity was Friday with a number of 20 entries, next, 17 entries on Tuesdays and 14 entries on Saturdays, 13 entries on Sundays. For this study the units chosen of the application were selected bearing in mind the topics that were followed according to the sixth grade subject plan and the content of the planning for the 4th term in the school. By the time of the research students were practicing with the book Achievers in the unit 8 with a topic related to animals, so that the unit of animals was selected to reinforce the vocabulary of them.

Furthermore, a common confusion that students had was the elaboration or understanding of

questions, applying the tense studied in that time. The idea was to provide more exercises related to the creation, answer and structure of interrogative sentences. The topics of the assignment were: Colors, The body, Questions, Food, Restaurant, animals and in 2 times Extra coins for spending 20 minutes of work per day.

These pictures of the topics on Duolingo dashboard reveals the lessons that students completed on time.

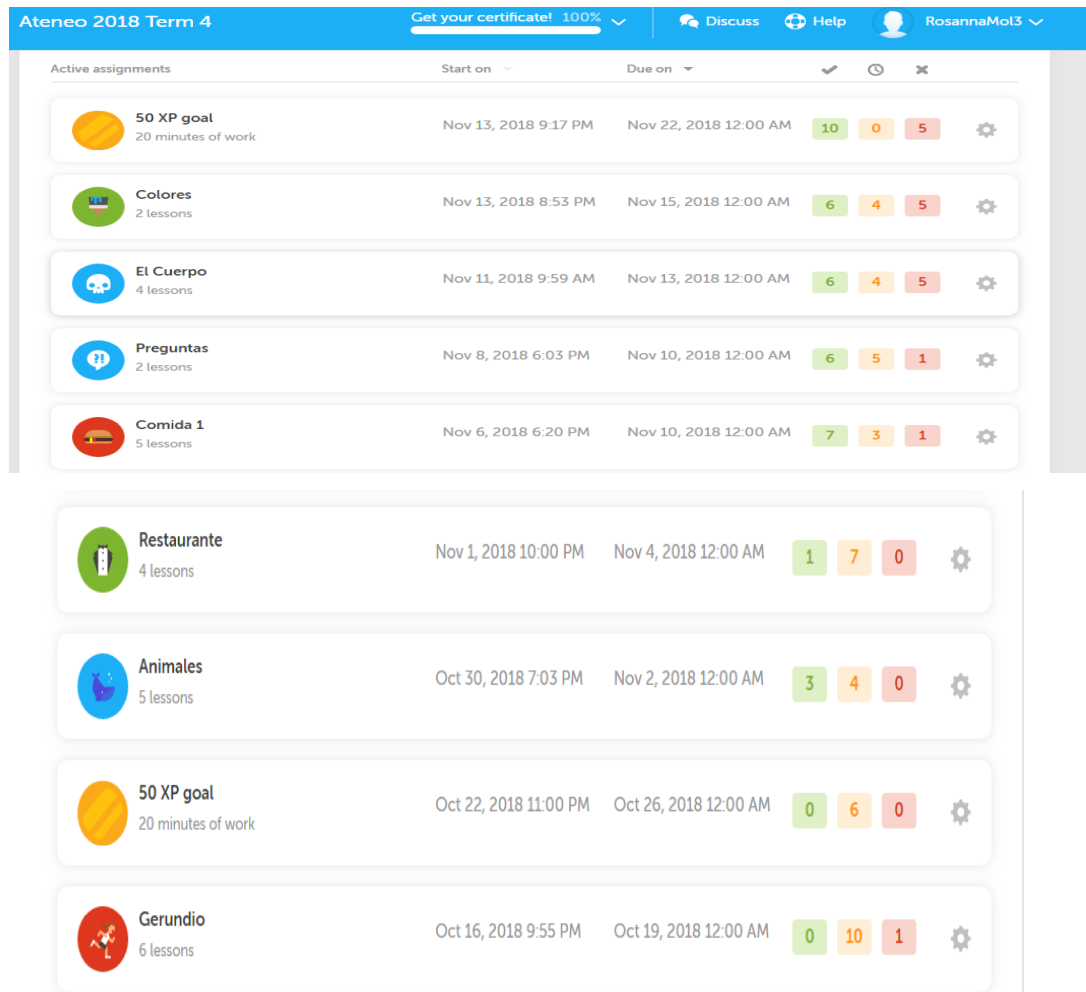




Figure 8. Assignments completed, late and missed.

50 xp goal is a challenge to spend about 20 minutes of nonstop work in a day to obtain extra coins for this. The dashboard reveals that 10 students completed this challenge on time. The next topic that the dashboard shows completed in 7 opportunities are the topic related to food. Then appears other topics with 6 completed lessons which are: Colors, questions and the body. Finally, the topic animals with 3 lessons finished on time and the topic of restaurant with 1 lesson completed on time. According to the topics assigned to the students the next is the content of the units and the quantity of lessons that the students must fulfill.

Figure 9. Content of the units assigned.

English for Spanish speakers				
 <p>Animales</p> <p>5 lessons 50 minutes</p> <p>✓ 6%</p>	cat	Noun	swim	Verb
	dog	Noun	swimming	Verb
	bird	Noun	walk	Verb
	eating	Verb	horse	Noun
	elephant	Noun	yours	Pronoun
	turtle	Noun	its	Determiner
	his	Determiner	mouse	Noun
	her	Determiner	spider	Noun
	animal	Noun	elephants	Noun
	cats	Noun	crab	Noun
	dogs	Noun	turtles	Noun
	walking	Verb	ours	Pronoun
	ducks	Noun	horses	Noun
	animals	Noun	bear	Noun
	birds	Noun		
	duck	Noun		
	 <p>Colores</p> <p>2 lessons 20 minutes</p> <p>✓ 13%</p>	color	Noun	gray
red		Adjective	brown	Adjective
orange		Adjective	colorful	Adjective
blue		Adjective	pink	Adjective
yellow		Adjective	purple	Adjective
green		Adjective		



Comida 1

5 lessons
50 minutes

✓ 0%

an	Determiner	lemon	Noun
fish	Noun	oil	Noun
orange	Noun	dinner	Noun
wine	Noun	meal	Noun
chicken	Noun	pork	Noun
plate	Noun	vegetarian	Adjective
sugar	Noun	apple	Noun
lunch	Noun	milk	Noun
breakfast	Noun	sandwich	Noun
cheese	Noun	tea	Noun
fruit	Noun	sandwiches	Noun
pasta	Noun	cook	Verb
juice	Noun	plates	Noun
beer	Noun	pay	Verb
beef	Noun	apples	Noun
soup	Noun	rice	Noun
tomato	Noun	egg	Noun
strawberry	Noun		



Preguntas

2 lessons
20 minutes

✓ 0%

why	Adverb	do	Verb
who	Pronoun	have	Verb
whose	Determiner	does	Verb
which	Determiner		
answer	Noun		



El Cuerpo

4 lessons
40 minutes

✓ 6%

if	Conjunction	eye	Noun
or	Conjunction	ear	Noun
leg	Noun	nose	Noun
foot	Noun	hair	Noun
finger	Noun	head	Noun
toe	Noun	whenever	Conjunction
arm	Noun	that	Conjunction
when	Conjunction	face	Noun
but	Conjunction	tooth	Noun
heart	Noun	mouth	Noun
knee	Noun	lip	Noun
body	Noun	skin	Noun
elbow	Noun	tongue	Noun
hospital	Noun		
while	Conjunction		



**Verbos:
Gerundio**

6 lessons
72 minutes

✔ 0%

having	Verb	looking	Verb
speaking	Verb	doing	Verb
touching	Verb	leaving	Verb
making	Verb	raining	Verb
following	Verb	sleeping	Verb
including	Verb	walking	Verb
getting	Verb	reading	Verb
taking	Verb	seeing	Verb
trying	Verb	cooking	Verb
giving	Verb	running	Verb
thinking	Verb	going	Verb
talking	Verb	playing	Verb
saying	Verb	starting	Verb
waiting	Verb	calling	Verb
watching	Verb	sitting	Verb
happening	Verb	paying	Verb

It is necessary to clarify that 50 extra points were assigned in 2 opportunities and in that way students were free to practice the units or lessons they wanted to complete in the time required 10 or 20 minutes of non- stop working, the majority of the lessons completed were these that offer 50 extra points per work in a day perhaps with the purpose of getting a high score that they already had.

Chapter 5. Findings and Discussion

5.1 Duolingo's features

Duolingo app was selected for the researchers as the app that could be implemented for two main reasons, the popularity among students according to the results of PLE(Personal learning Environment) which was applied to the target group in order to know how well familiarized students were with the use of mobile applications in their everyday life. The results showed Duolingo as the app most used for them (See Appendix A). Working with apps as Duolingo was our choice because there were previous researches that used to implement applications in their studies to enhance English as a second language. Alcalá, E.C (2016) states that “Students appreciate mobile apps for their usability, accessibility, ease of downloading, and the service of multiple purposes. In addition Steel (2012) applied a survey that showed in their results that mobile devices seems to be beneficial for their learning language.

It can be noticed that Duolingo presents ten lesson per unit that emphasizes multiple activities regarding with vocabulary and different topics that are familiar for learners of all ages

The focus of the app is skills-based- approach because it tries to use writing, listening, vocabulary, and pronunciation among the different drills and lessons so that, we can say that its focus is skills-based approach. Our perception is that the application tries to focus on the skills but, the conversational and speaking part is not the most developed because students might not

have enough opportunities to communicate in a fluent conversation or a dialogue with someone else. Instead, students could make repetitions of sentences and in occasions they can imitate and repeat parts of the lessons. After noticing this aspect we can establish that following the language learning theory of the Innatism children construct grammar and meaning by practicing communication rather than focusing on the explicit rules of syntax. On the other hand, Duolingo allows practicing learners since a basic level structures until more complex level of the phrases.

- Duolingo seems to apply a behaviorist learning theory because it emphasizes in new habits and stimulus during the learning process.
- Duolingo tries to help learners with the new habits to study, when learners sign as a new users with an account the application is designed to create alerts and encourage learners they need to continue practicing. Furthermore, the app is designed to create stimulus with extra points for all of the learners that spend a certain quantity of non-stop minutes per day using the application; it could be from 10 to 30 minutes.

The app is also designed to give rewards and trophies, this shows that the student is reaching goals through levels so they can feel they are overcoming difficulties and advancing to higher levels every time they practice. For our consideration Duolingo users could be learning through a Constructivist form. Salomon (2014) states that constructivism takes place from our innate personal experiences and students construct their own way of thinking, they

monitor and regulate their own learning in a second language acquisition without educators and take an active role to achieve their own level of interpretation and knowledge. If we take into account the previous ideas we could say that Duolingo users are free to learn and reach different levels because without teachers they can dive into the contents of the application according to their own interests and work, they can regulate their own rhythm of learning and take an active role in their learning process perhaps through deciding the time they work on the platform and the minutes they spend each day to enhance their abilities. Another important feature to highlight is the reputation of Duolingo because it is based on the number of downloads of the millions of users around the world and the commentaries that could be seen in play store before download. In consequence, a lot of people may decide to click on download. This information could be useful to help others in taking the decision of having or not the app in their mobile or computer.

5.2 Survey

As shown the chapter of results, according to the categories taken from survey Zimmerman (2001), this study shows that students of this particular context develop organization and self-regulation by using Duolingo. It can be said that most of the students mentions in the survey after using the application were more aware in the organization of their task and activities. Another important finding is that the students were able to self-evaluate in their leaning process for instance as it is mentioned by a student. (Sees appendix b)

“Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien”. (“When I have a lesson assigned in Duolingo I verify if I have learned everything right”).

“Sí, siempre que la hago veo si entendí, si no entendí consulto eso o lo vuelvo hacer de nuevo.”(Yes, When I do it I always check if I understood, if I didn´t understand I research and I´ll do it again)

This study included some categories taken from Zimmerman like self- evaluation, goal setting, organization and transformation, seeking social assistance and giving self – consequences. According to Zimmerman (2000) these learners are able to monitor their own behavior because they are proactive and aware of their strength and weakness regarding with their learning process as well as task related strategies.

Based on the previous survey, students in this group developed some important academic patterns. A total 10 answers in self -regulation were found and these showed that there are some categories that learners developed by using the application such as self -regulation , goal setting , organization and transformation, seeking social assistance reviewing materials, and giving self – consequences. Those were the categories taken from the survey that could be classified by Zimmerman’s scale. It indicates that students of this group have some essential features that are necessarily used in the self –regulation process. Zimmerman (2000) highlights that the process of self- regulation is not a mental ability. It is a set of academic skills which learners work to reach the self- regulation.

Develop and propose design solutions independently	7
Understand the problem and design requirements independently	2
Constructing artifacts	3
Clarifying the problem	2

Table 11. *Skills*

The previous table registers a group of categories which shows some skills that students could have developed during the use of Duolingo, it allows to think they could have gotten some level of self-regulation.

Taking into account the objective of this study that was to determine the extent of contribution that the application could provide to develop self- regulation of a group of sixth grades with an A1 level as perceived by students themselves, it can be said the use of Duolingo application had a good impact on students learning process and the application developed some academic skills that were mentioned from survey early and that are part of self- regulation. Therefore, it brings up a positive affect over student's motivation since the way as these students developed learning strategies shows that they aware and in more control of their learning process. Also it is noted that when students make progress in self –regulation, they become more motived. Zimmerman (1998) stated that the self-regulatory process are teachable, and it can help to lead to an increment of students motivation. This main finding bring us to the

essential question if such as categories that were found in the survey fit the objective of this research that was to determine the contribution of Duolingo to self-regulation in this context as perceived by students. It seems to be that students can learn self-monitoring from an instruction, teachers and peers and that self-regulated students look for help with others (Zimmerman, 2000). Self-regulation can be taught and oriented through the use of teachers' method or by implementing new materials into the classroom. Zimmerman and Martinez (1998) mentioned that the quality of teachers and their work can lead to an increment the self-regulatory process in the students. In this research, after using the dashboard, learners felt more able to self-monitor their learning and developed more learning strategies because of the efficacy of teaching practice by using Duolingo in the second language.

5.3 Categories taken from survey

The next information refers to some important findings taken from the survey that are going to be explained in this section.

Table 12. *Zimmerman scale.*

Self-evaluation	10
Goal setting	8
Organization and transformation	7
Seeking social assistance	4
Reviewing materials	5
Giving self-consequences	1

Other important categories were shown in the survey from other authors, Chen and Chiu ; 7 learners developed and proposed design solutions independently, it is noted that self-regulation is a set of skills that learners reach to self- monitor. Markus and Wurf (1987) stated that self-regulation is related with how learners develop strategies in order to accomplish their goals. Comparing these categories with Zimmerman´s it can be said that through Duolingo application language-learning improved significantly increasing the student´s self-regulation, the students awareness acquisition was evident in advanced students because the majority of them developed more autonomy in the language learning, so that, they logined in Duolingo in different times.

“Tengo un horario específico para ingresar a Duolingo” (I have a specific Schedule to login Duolingo ?)

“No. Lo hago cuando recibo la notificación o cuando tengo tiempo libre” (Not , I just do it when I have a notification or when I have a free time)

Also, data driven scales showed in the interview that students will suggest this application to others, it shows the recognition of the usability of the application

Recomendarías la aplicación? *Sí, claro. (yes of course).*

La recomendarías? *Sí, a mis padres y amigos para que aprendan otro idioma. (yes My parents and Friends so they can learn another languages).*

Recomendarías la aplicación? *Sí (yes).*

The use of Duolingo improved students' self-regulation because it motivated students' work with different types of rewards. In addition, this application is efficient for the English learning because of the sequence in how the lesson and skills are presented.

5.4 Interview

Some important findings in the interview are shown below. It can be noticed that the students of sixth grade increased some academic skills by using Duolingo. For this interview, 11 samples were collected and the categories were taken from Zimmerman, data driven, and Synder (1989)

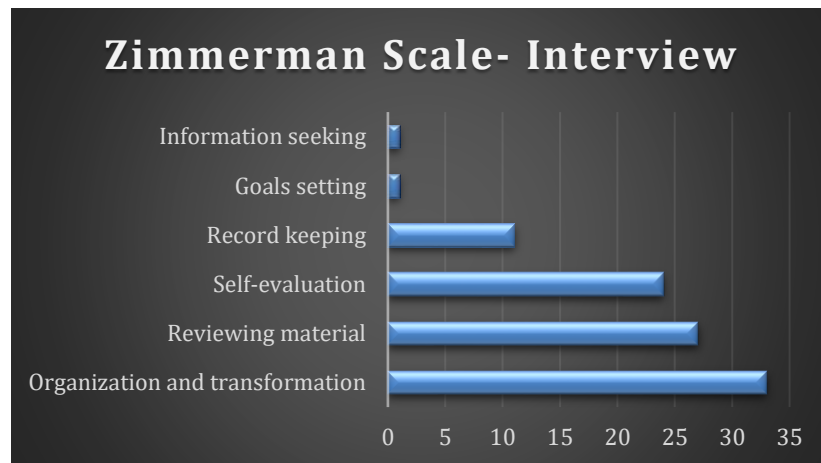


Figure 10. (See appendix c).

Organization and transformation was the most important category, it shows that students have become more aware and organized when they need to complete their task and activities. It means that these pupils became more self-regulated in the fulfillment of their activities. Reviewing material was another important category. It can be noticed because of the organization and transformation which had a positive impact since learners became interested in the way the tasks were considered part of the teaching instruction and how students had control over it. Self-regulation is a process that integrates some essential changes that are being noted from survey

and interview, for instance, after using Duolingo it can be said that learners have changed some pattern of behavior since they had more control over their task and activities by themselves.

According to Paris and Paris (2001) a self-regulated student is able to do some extra activities by themselves by taking notes and set up their own time to complete their task. Taking into account one of the objectives of this thesis that was to determine the extent of contribution of Duolingo app towards the development of self-regulation in an A1 group as perceived by students themselves, it can be said that learners developed more control and self-awareness in their learning process because through their answers to the instruments, they seem to be more organized in the development of activities and tasks. On the other hand, motivation was not an essential component in this research but it is essential to highlight that self -regulatory process takes place indirectly with motivation. Zimmerman and Schunk (2001; 2008) link motivation with self-regulation process.

The findings in the interview showed that learners in this context had some changes on their behavior. The data obtained from this instrument proved that students had more interest in their new schedules and routines in order to completing task.

Based on this students completed a post survey that will be explained in the next section.

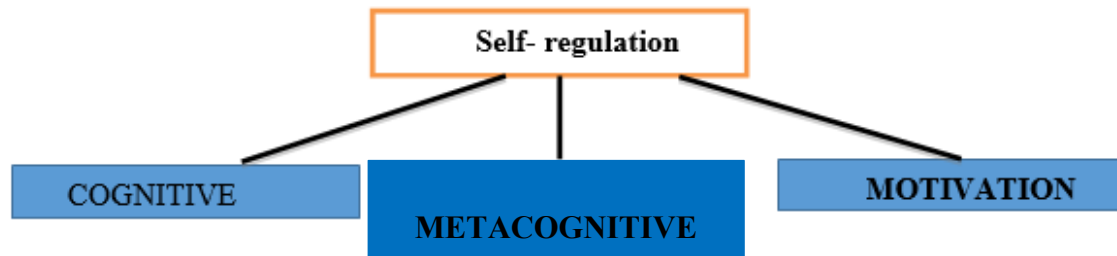


Figure 11. Zimmerman 2001

The previous figure represents a self-regulation view from Zimmerman (2001) who considers self-regulation as a process that contains three variables: Cognitive, metacognitive and motivation which are cyclical and can't be isolated.

5.5 Post survey

This research group made a post survey after five months of ending the project at school in order to check students' perception of the use of Duolingo application some time after the study. Among the questions asked to the learners, the goal of the first question was to know if students have the application downloaded on their mobiles or computers.

¿Tienes Duolingo descargado ahora mismo? (Do you have download right now?).

The answers to this question were 3 negative and 4 positive answers. Then, for the question: *Did you use it on vacation time?* (¿Lo usaste en vacaciones?). 5 answers were positive, one of the learners said "muy poco" (a little) and another "sí, pero, pocas veces." (Yes but sometimes). A third student said "muy poco." (Not too many times).

For question number 3 ¿Te gustaría volverlo a usar en clase? (Would you like to use it in class again?). From 7 students who answered the survey, 2 answered no and 1 expressed “tal vez.”(Maybe). The rest said yes and “Sí aprendo mucho y es didáctico” (yes I learn a lot and it is didactic). (See appendix e)

For the question number 4 research team asked *¿Haces los exámenes en Duolingo o si prefieres paper based?* (Do you make the test of Duolingo or you prefer paper based?). In this question the 7 answers were positive, they prefer exams in Duolingo.

For question number five, ¿Te gustaría aprender otro idioma con Duolingo? (Would like to learn another language with Duolingo?) The survey got 6 positive answers and 1 negative.

For the question number 6 *¿Necesitas tutorial antes de usar Duolingo?*(Do you need tutorial before using Duolingo ?)

6 students answered no because they already know how it works and just 1 was clear to say: "Sí, porque si soy un novato en la aplicación puedo aprender cómo se utiliza, sus funciones y mis objetivos.”

So that, it seems to be important to help and orient students in the process, for instructions or to clarify doubts of performance and what the purpose of studying these topics in the English subject are.

For the question number 7 *¿La clase en Duolingo me permite ver los objetivos más claros?* (Does the use of Duolingo allows me to understand more the objective of the class?).

6 answered were yes. And 1 answer was no.

For question number seven *¿Los objetivos son claros en Duolingo? Are the objectives of the class clearer?* 6 of the students said yes and just one no.



Figure 12. Student's answers about Duolingo objectives. Taken from survey monkey post survey. (see appendix e)

In this question, we can notice that the majority of the students agree with it. However, there is a contrast between two answers; one of them expresses in a clear way that he or she considers Duolingo objectives clear because of its didactic way to present the lessons and makes a comparison with his or her regular classes at school. This student also highlights that lessons in Duolingo are cyclic and they could repeat them maybe to review or study again.

Another student with opposite opinion argues that with Duolingo students cannot have clear goals because it entertains so it could be seen as a game. Then, students could get lost and forget the main purpose of using Duolingo app, which is improving the proficiency in English.

For the question number 8 *¿Yo siento que yo puedo practicar más con Duolingo que con otra actividad? Do I feel I can practice more with Duolingo compared to another activity?*

Five students expressed yes and two said no.

One of the pupils considered that it is possible with Duolingo but, it is necessary to study and use it frequently.

Si pero si lo hago con una frecuencia

07/04/2019 21:50

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Figure 13. Recognizing the practice with Duolingo.

For question number 9 *¿Yo siento que Duolingo es una competencia con buenos premios? (Do I feel that Duolingo is a competence with good rewards?)*

7 answers were positive they said: Yes.

Among the most relevant answers for this question we could highlight



Figure 14.

Opinions about Duolingo rewards.

Three opinions as “Sí, porque mis resultados son los que yo aprendo,” (yes , because my results are what I learn). In this answer we can notice that it is important for this particular student the marks or rewards for his or her effort and it is almost sure that this prize received is because he or she has learned and now can enjoy with the result of his or her work. Another opinion of a student mentions the fact that the application is free and that is something positive for people who want to study English. Another opinion is related to the rewards, and for another learner it means more knowledge in the English field. Finally, for the question number 10 *¿Eres capaz de planear tu propio proceso de aprendizaje usando Duolingo?* (Are you able to set up a plan in your own learning process?). The survey got 7 positive answers for this question.



Figure 15. Self – regulation of the learning. Taken from survey monkey post survey.

(See appendix e)

In the previous image we can see that students are aware of their own learning process, it seems to like the idea of monitoring his or her own English learning process and been satisfying according to their opinions. One of the students clarifies that he or she is using Duolingo application for the English course. Besides, another pupil feels confidence developing the activities or English content by him or herself because the app offers personalizing service where a person can work by his or her own rhythm.

5.6 Discussion

5.6.1 Did students monitor their own learning language?

According to their answers, they did. Some lessons were assigned to the target group, lessons that could help them to master the content of their regular classes. Even though these lessons were assigned they were free to decide to do them, and when and how to. There are data results of the dashboard that could determine the previous affirmation. In dashboard report

could be noticed that three student of the target group used the app on their mobiles in the time they were at school, took advantage of the break time in two opportunities and one opportunity during the class. The information on the dashboard could also show that the days they accessed the platform were in the morning during the school day on Monday, Thursday and Friday between 10:47 and 12:10 a.m. Another interesting finding was that the days with more access records were Thursday perhaps because on Fridays they had English classes at school. The other was Fridays with 20, perhaps they finished the class focus and continued practicing. This could influence a higher percentage of students visiting the app. On the other hand, in the report of Duolingo dashboard was registered that the most completed assignment on time was 50xp goal. Furthermore, it was assigned to increase the time for students to stay practicing in the application in a day and to encourage the time of study with the application. A total of 10 students completed on time this assignments, so it could determine that they really wanted to obtain rewards for their work, the age could be the reason of their interest in obtaining rewards and the gamification of the app could be another reason too, because they think on Duolingo as a funnier and different form to practice a foreign language. It seems to be supported by Chen (2016) who argues that learners may feel motivated to learn new words because games are integrated to this process. On occasions, educators try to find new or trendy ways to call the attention of the students, prepare classes to obtain interesting and satisfying results with learners, so that, there are educators that prefer to work with technological tools that provide learners the opportunity to practice different languages in dynamic ways. Colombian teachers could have the chance to support their English classes with the content lessons of Duolingo app

because it was designed with pedagogical characteristics that make it become suitable to the English teaching. The use of this app could generate into the users self – regulation because they need to spend time working on the different units to obtain a good a score to move forward to the next level of English; students also can select what to study and when to do it for improving or practicing and this may be relevant for learners that are always trying to personalized their spaces, and looking for easy apps that could help to develop their interests. On the other hand, taking into account Brown’s concept of validity (2004), it can be said that Duolingo app presents content validity because its tests and tasks have an expected format, the items could be clear and uncomplicated to them, directions are clear, and task could be related to their course work and the difficulty level has a reasonable challenge. If we as educators are looking for enhancing responsibility and self-regulation among our students trying with digital tools as Duolingo app to complement an English course could be a positive strategy for them to develop independence and motivation in order to awake the intrinsic force that all students must have to master themselves in any subject or activity they decide to learn.

The results reached during the period in which project was applied in the context and the target group revealed positive details in general.

Chapter 6. Conclusion

A case study was developed at a private school in Barranquilla where a group of students from 11 to 13 years old were selected as the target group for the research. With those students the researchers implemented language practice through Duolingo app to complement part of their English lessons at the institution in order to measure enhancement of learners' self-regulation as perceived by students themselves. With this study, the researchers wanted to analyze the pedagogical characteristics of Duolingo app to see if it is suitable for English learning purposes and the possible benefits of its use. Furthermore, another objective of the study was to incorporate Duolingo dashboard to the content of the classes. An interview, a pre- survey and a post- survey were applied and analyzed through Kim and Kwon (2014)framework, Zimmerman (2014) scale and Snyder scale (1974) to measure the impact of the app in the self- regulation strategy. This study may inform other studies or contexts that consider or want to implement an app like Duolingo to enhance English practice in the content of their classes with the purpose of developing self- regulation among a group of learners, characteristic that could be evidence of awareness, interest and intrinsic motivation. For this particular group of students having a different space to use this kind of technology to practice English was a different, funny and a good experience according to students' answers. In the survey and the interview, some of them showed a little of hope and optimism to improve in some way their English level using the app; others expressed that the app was a useful tool because it always create alerts when there was an assignment. However, the time used to complement some of the lessons from the regular English classes could have been more but, the vacation of the institution and final exams were external

factors that could affect to complete the assignments of the dashboard on time. The implementation of Duolingo dashboard could be an alternative material to support regular classes because its content is pedagogical appropriate for practicing a foreign language through the different skills and levels even though, oral and conversational skills are not the most developed in the app. Duolingo dashboard is useful and interesting for the teaching practice because the application shows information and record of the work and assignments of each student in detail. Even if the teachers assign a particular lesson for particular purposes, it depends on the student if he or she wants to explore more topics and spend time using it in moments that could be resting or doing any other activity. Further studies could take in consideration raise the time using the app as extra activities to reinforce lessons of English courses and try to use the app in the classroom to increase the participation of the students and avoid doubts about its mode of use perhaps to obtain collaboration and scaffolding in the target group. Also futures studies can be conducted using Duolingo in order to research how the lesson plans that are being used in the application that might scaffold to the learners to increase their vocabulary. This kind of study could be more detailed compared to the current, since the type of interaction among application and learners should be more often. There can be applied a qualitative case study method that is suitable to this specify study, another method which allows to carry out is action research because it seeks to generate any kind of changes in the target group.

This kind of research is a cyclical process which allows to promote different interaction stages for example in a first step it enables to self-reflect about its same issue that the students face related to vocabulary and then, it proceeds to new changes, it is the way that action research

work because the idea with this method is to promote changes, Tripp 1990 stated: “Consciously and deliberately uses the action research cycle, leading to “strategic action”, which involves action based on quality information, in contrast to that which is a result of habit, instinct, opinion, or mere whim on the one hand, and irrelevant, subjective, and incomplete knowledge on the other (p.159). Taking into account the current study, it is essential to mention that the importance of some features was described about affordances in Duolingo, basically with this research the idea was to examine to what extent Duolingo contribute to promote the self-regulation in a A1 group from a private school and in what way or another it allowed to find that Duolingo has a variety of learning affordances and there exists some relevant pedagogical features that brings this application which address to students to feel an impact over there language learning. As it can be seen in this current study were found some important Duolingo pedagogical functions and language learning affordances in this application. Van Lier (2004) defined affordances as the capacity of relationships among learner and environment. Three pedagogical function were found for this research: gamification, activity and interaction. In summary, Duolingo can still be a valid addition to any course, online or face-to-face, since students are able to review the language at their own level and is more recommended for beginners. It is recommended that students do a number of hours in a week, which now can be easily tracked in schools Duolingo, they can do the activities in several days in order to remain frequent contact with the language. This type of m-learning allows students to increase the classroom learning by providing flexible learning that can enrich the classroom experience.

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Appendixes

APPENDIX A. PLE.



Personal learning environment

Karla Figueroa

p.l.e

for learning structure and grammar



for listening



for practicing pronunciation



to do homework



for learning new vocabulario



for talking with people




April 30th /2018


PERSONAL LEARNING ENVIRONMENT

My favorite apps to practice English
María Paula Becerra


For learning structure and Grammar



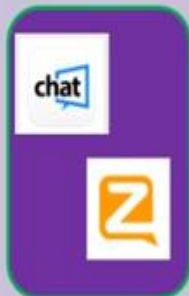
For practicing pronuntiacion




For learning new vocabulary




For talking with people



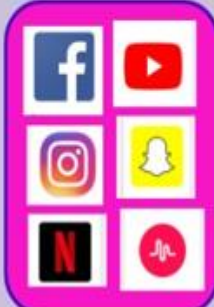
For listening



To do the homework



For entertaining



PERSONAL LEARNING ENVIRONMENT

► My favorite apps to practice english

Nicolás Jiménez.

For learning structure and grammar

For listening

To do the homework



Personal learning environment

► My favorite apps to practice english

For entertaining



Personal learning environment

Dylan Contreras



personal learning environment



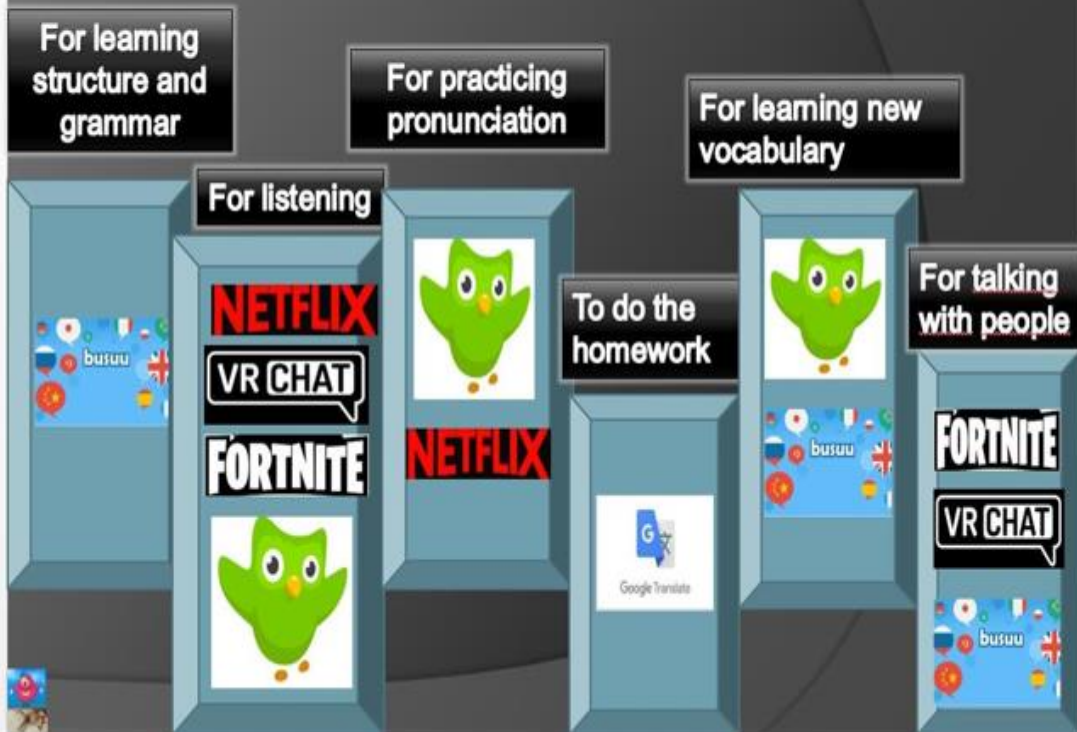
PERSONAL LEARNING ENVIRONMENT

My favorite apps to practice English

Valentina Feria

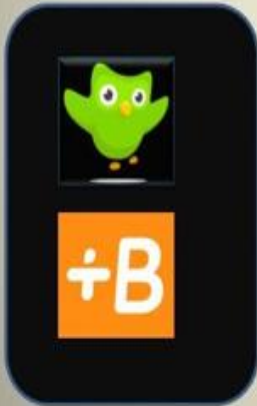


P.L.E Personal Learning Environment



David Pabón

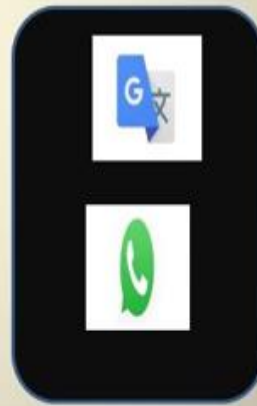
App of studing
languages are



Entertainment
app are



To the
homework



P.L.E = PERSONAL LEARNING ENVIRONMENT

Naheovy Girón

The image is a collage of various educational resources and social media icons, organized into several colored boxes with specific learning objectives:

- FOR LEARNING STRUCTURE AND GRAMMAR:** Includes the Babel logo.
- To do the homework:** Features Google Translate with Conversation Mode.
- FOR TALKING WITH PEOPLE:** Shows a 'Hi' icon with a character.
- FOR LISTENING:** Includes Duolingo, a 'Tructor | EL MUNDO' logo, and Google Translate with Conversation Mode.
- For practicing pronunciation:** Features the HelloTalk app.
- For learning new vocabulary:** Includes Babel and a poster for 'CURSO DE INGLÉS MULTIMEDIA ONLINE GRATIS'.
- For entertaining:** Shows social media icons for Instagram and Facebook, and the Netflix logo.

Other visible logos include NudoFood, British Council Learn English, and a small Duolingo owl.

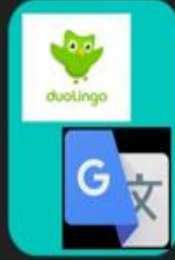
PERSONAL LEARNING ENVIRONMENT

Laura González MY FAVORITE APPS TO PRACTICE ENGLISH

FOR LEARNING
STRUCTURE AND
GRAMMAR



FOR
LISTENING



FOR PRACTICE
PRONOUS



FOR LEARNING
NEW
VOCABULARY



TALKING WITH
PEOPLE



FOR
ENTERTAINING



PERSONAL LEARNING ENVIRONMENT

Jesús Núñez

GRAMMAR



LISTENING



PRACTICING



HOMERWORK



For learning esturcture and gramar	vocabulary
For listening	talking with people
For to practice pronunciation	entercaing
To do the homework	
<p>Andr�a Cabarcas</p>	

PERSONAL LEARNING ENVIROMENT

María Camila Cabrera
My favorite apps to practice english

For Learning
structure and
grammar



For Listening



For Practing
Pronunciation



To Do
Homework



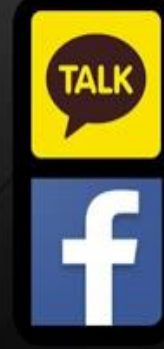
For learning new
vocabulary



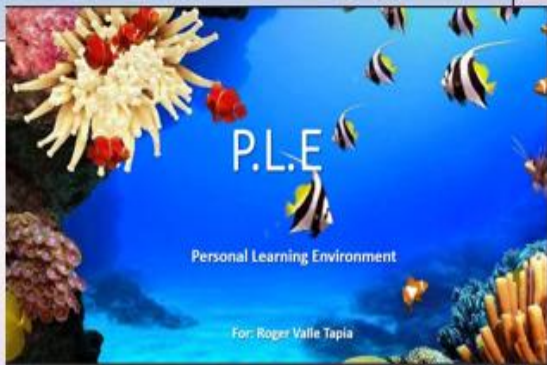
For talking
with people



For Entertaing



P.L.E CATEGORIES



PERSONAL LEARNING ENVIRONMENT

Emanuel Siado

FOR LISTENING



English Grammar



Aprender Inglés Español
Yobimi Learning English



Gramática Español



Escuchar inglés

GRAMATICA ESPAÑOL

FOR PRACTICE PRONUNCIATION



Aprende a hablar inglés

FOR HOMEWORK



Traductor de Google



inglés Pronunciación



traductor inglés español

FOR LEARNING NEW VOCABULARY



DuoLingo - Idiomas

FOR TALKING WITH PEOPLE



Open English

FOR LISTENING



NETFLIX
YouTube

PLE
ALBERTO BRITO

FOR ENTERTAINING

FOR LISTENING

FOR LEARNING STRUCTURE AND GAMMAR

PLE
ALBERTO BRITO

TO DO THE HOMEWORK

FOR TALKING WITH PEOPLE

FOR PRACTICING PRONUNCIATION

PLE
ALBERTO BRITO

FOR LEARNING NEW VOCABULARY

Personal Learning Environment

Juan Santana

My favorite apps to practice English

FOR LEARNING
STRUCTURE AND
GRAMMAR



FOR PRACTICE
PRONUNCIATION



FOR LEARNING
NEW
VOCABULARY



FOR TALKING
WITH PEOPLE



FOR
LISTENING



TO DO THE
HOMEWORK



FOR
ENTERTAINING



My favorite apps to practice English

Alejandro Candanoza

For learning structure and Grammar



For Listening



For Practicing Pronunciation



For Entertaining



To do the Homework



Personal learning environment

by: Santiago Pimienta

for: Lic. Rossana Molina



Personal Learning Environment

Álvaro Sarmiento

For learning structure and grammar



For practicing pronunciation



To do the homework



For talking with people



For entertaining



For listening



For learning new vocabulary



APPENDIX B

Survey Categorization

Survey 1

Organization and transformation Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine.	Me animo con el simple hecho de aprender algo nuevo	Develop and propose design solutions independently.+			

<p>2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente</p>	<p>Si y va ayudarme aprender ingles</p>		<p>Giving self- consequences</p>		
<p>3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.</p>	<p>Si, incluso doy click en practicar lección</p>	<p>Understand the problem and list the design requirements independently</p>			
<p>4. Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>Si</p>				

<p>5. Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola.</p>	<p>Si</p>				
<p>6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.</p>	<p>No porque todas son divertidas.</p>		<p>Reviewing materials</p>		
<p>7. Tengo un horario específico para ingresar a Duolingo</p>	<p>En mis tiempos libres o cuando llego del colegio</p>		<p>Organization and transformation</p>		

<p>8. Si surgen algún problema para comprender algo en Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo.</p>	<p>Busco el significado de cada palabra, para poder armar las oraciones, cuando no entiendo algo, busco ayuda para que me aclaren dudas</p>		<p>Seeking social assistance</p>		
<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>	<p>Sí, porque ya sabré nuevas palabras y la organización de las palabras</p>		<p>Self-evaluation</p>		

<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme.</p>	<p>Si, lo hago en mi cuarto sin ninguna distracción</p>	<p>Develop and propose design solutions independently.</p>			
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Survey 2

Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
<p>1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me</p>	<p>me alegro porque avance en ingles</p>		<p>Self-evaluation</p>		

<p>animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine.</p>					
<p>2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente</p>	<p>Claro porque esforzándome y dedicándome mi mejoría va hacer más notoria.</p>		<p>Goal setting</p>		
<p>3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.</p>	<p>y si no le pregunto a la profesora para aclarar las dudas</p>		<p>Seeking social assistance</p>		

<p>4. Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>por medio de internet o la profesora para volverlo a intentar</p>	<p>Develop and propose design solutions independently.</p>			
<p>5. Después de trabajar con una lección, verifico cuánto tiempo me demoré realizándola.</p>	<p>Si</p>				
<p>6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco</p>	<p>y pensar que en un futuro puede ser útil la lección</p>		<p>Goal setting</p>		

<p>interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.</p>					
<p>7. Tengo un horario específico para ingresar a Duolingo</p>	<p>lune,jueves,viernes,domingo</p>		<p>Organization and transformation</p>		
<p>8. Si surgen algún problema para comprender algo en Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo.</p>	<p>por medio de internet o preguntar a compañeros</p>	<p>.</p>	<p>Seeking social assistance</p>		

<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>	<p>Para que salga mucho mejor que la última tarea y así ser el mejor</p>		<p>Goal setting</p>		
<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme.</p>	<p>Cuando estoy estudiando ingles lo utilizo</p>	<p>- Constructing artifacts</p>			

Survey 3

Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine.	No que todo va a ser divertido				
2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente	Si y va ayudarme a prender ingles	Constructing artifacts			

<p>3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.</p>	<p>Si hay que revisarla</p>	<p>Clarifying the problem</p>			
<p>4. Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>Si</p>				
<p>5. Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola.</p>	<p>no porque prefiero hacerla como clases normales porque solo 2 lecciones son necesarias por cada clase</p>	<p>Understand the problem and list the design requirements independently</p>			

6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.	No porque todas son divertidas		Reviewing the material		
7. Tengo un horario específico para ingresar a Duolingo	Si				
8. Si surgen algún problema para comprender algo en Duolingo, me	No. se acude a la profesora		Seeking social assistance		

<p>cuestiono sobre qué puedo hacer para solucionarlo.</p>					
<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>	<p>Si</p>				
<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme.</p>	<p>SI</p>				

Survey 4

Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine.	No, esta plataforma me parece muy divertida porque es fuera de lo común de lo que me presentan en las clases de Inglés en la escuela		Reviewing the material		
2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente	Claro porque esforzando me y dedicándome mi mejoría va hacer más notoria.		Goal setting		

<p>3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.</p>	<p>Si para que pueda recordarlo</p>	<p>Constructing artifacts</p>			
<p>4. Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>claro, yo busco hasta poder entender</p>	<p>Develop and propose design solutions independently.</p>			
<p>5. Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola.</p>	<p>NO POR QUE COMO ME GUSTA NO MIDO MI TIEMPO</p>		<p>Self-evaluation</p>		

<p>6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.</p>	<p>si por que la profesora nos quiso motivar haciendo clases en esta plataforma para que en el colegio nos vaya muy bien</p>	<p>Clarifying the problema</p>			
<p>7. Tengo un horario específico para ingresar a Duolingo</p>	<p>no solo cuando tengo tiempo libre y este sin tarea por que no me gusta pensar en las dos cosas al tiempo</p>		<p>Organization and transformation+</p>		
<p>8. Si surgen algún problema para comprender algo en</p>	<p>si porque entre más rindo en duolingo</p>		<p>Goal setting</p>		

<p>Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo.</p>	<p>más posibilidades hay de avanzar</p>				
<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>	<p>Si para que la próxima vez sea más rápido y pueda avanzar en el vocabulario.</p>		<p>Goal setting</p>		
<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido</p>	<p>Si siempre lo hago en espacios en el que este sola sin ruidos porque me</p>	<p>.</p>	<p>Organization and Transformation</p>		

para evitar desconcentrarme.	distraigo y me sale todo mal				
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Survey 5

Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré	A Mi Me Pareció Divertida Y Me Gustaría Que Muchas De Mis Clases Fuera Mediante Estas Aplicaciones.		Reviewing the material		

hacer algo que me guste cuando termine.					
2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente	<p>SI SOBRE TODO POR QUE SON RETOS PERSONALES QUE TU TE PONEN</p> <p>15/11/2018 20:54</p>		Goal setting		
3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.	<p>SI TRATO DE HACER DE ESTAR ATENTO</p>		Self-evaluation+		
4. Si no he conseguido comprender alguna actividad de la	<p>SI ME DOY CUENTA EN QUE ESTOY</p>		Self-evaluation		

<p>aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>FALLANDO PARA LUEGO CORREGIRLOS</p>				
<p>5. Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola.</p>	<p>Exacto, realmente duro 15 minutos o media hora.</p>		<p>Organization and transformation</p>		
<p>6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.</p>	<p>COMO ME GUSTA NO TENGO PROBLEMA CON LA MOTIVACIÓN</p>		<p>Self- evaluation</p>		

<p>7. Tengo un horario específico para ingresar a Duolingo</p>	<p>NO. LO HAGO CUANDO RECIBO LA NOTIFICACIÓN O CUANDO TENGO TIEMPO LIBRE</p>	<p>Develop and propose design solutions independently.</p>			
<p>8. Si surgen algún problema para comprender algo en Duolingo, me cuestiono sobre qué puedo hacer para solucionarlo.</p>	<p>No</p>				
<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han</p>	<p>Si</p>				

<p>funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>					
<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme.</p>	<p>Si en mi cuarto por lo general</p>		<p>Organization and transformation</p>		

Survey 6

Questions	Answers	Chen and Chiu	Zimmerman	Snyder	Data Driven.
1. Antes de empezar a usar Duolingo, si considero que la aplicación me va a resultar aburrida, me animo a mí mismo diciéndome que podré hacer algo que me guste cuando termine.	Primero veo como es y si me gusta lo hago. La primera vez que lo vi me resulto aburrido pero ahora es divertido justo hoy llegue a tener 300 xp.				Cheer myself with future rewards+
2. Mientras estoy usando Duolingo, me animo recordándome que aprender inglés depende de que me esfuerce lo suficiente	Sí, porque quiero que este periodo me vaya muy bien y que cuando sea grande me pueda defender con ese idioma.		Goal setting		

<p>3. Cuando tengo asignada una lección en Duolingo compruebo si lo he aprendido todo bien.</p>	<p>Sí, siempre que la hago veo si entendí, si no entendí consulto eso o lo vuelvo hacer de nuevo.</p>		<p>Self- evaluation</p>		
<p>4. Si no he conseguido comprender alguna actividad de la aplicación, intento buscar las causas para evitar que me pase lo mismo la próxima vez.</p>	<p>No, solo me concentro muy bien y presto mucha atención. 15/11/2018 20:07</p>		<p>self- evaluation</p>		
<p>5. Después de trabajar con una lección, verifico cuanto tiempo me demoré realizándola.</p>	<p>Exacto, realmente duro 15 minutos o media hora.</p>		<p>Self- evaluation</p>		

<p>6. Antes de empezar una actividad en Duolingo, si me parece inútil o poco interesante, intento motivarme recordándome lo importante que es aprenderlo para poder aprobar la asignatura.</p>	<p>Solo hago las más interesantes las aburridas las dejo de ultimo.</p>		<p>Reviewing material+</p>		
<p>7. Tengo un horario específico para ingresar a Duolingo</p>	<p>Si, cada 3 días y duro media hora trabajando.</p>		<p>Organization and transformation</p>		
<p>8. Si surgen algún problema para comprender algo en Duolingo, me cuestiono sobre qué</p>	<p>Consulto en google y veo algunos vídeos para entender más a fondo.</p>	<p>Develop and propose design solutions independently</p>			

<p>puedo hacer para solucionarlo.</p>					
<p>9. Al terminar una lección, me doy cuenta de las cosas que he hecho que me han funcionado y me planteo posibles cambios en la forma que haré la tarea la próxima vez.</p>	<p>Yo mismo me pregunto sobre lo que hice para ver si entendí así veo si estuve concentrado.</p>		<p>Self- evaluation</p>		
<p>10. Cuando uso duolingo lo hago en un ambiente sin distracciones o ruido para evitar desconcentrarme.</p>	<p>Lo hago en la sala muchas veces me desconcentro porque mis abuelos ven televisión pero siempre hago los trabajos.</p>	<p>Develop and propose design solutions independently.</p>			

APPENDIX C

Interview Categorization

Interview 1

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN	CHEN & CHIU
1.¿Tiene instalado duolingo en algún dispositivo cuál?	En el celular	Organization and transformations (Zimmerman)			
2 . ¿Cuándo ingresas a duolingo en que momento del día?	Siempre es en las noches porque siempre estoy ocupada.	Organization and transformation (Zimmerman)			

3. ¿ En qué lugares utiliza la aplicación?	No sé en casa en un dispositivo	Reviewing materias (Zimmerman)			
4. ¿Usas lo aprendido en duolingo en la clase de inglés?	Si	Reviewing the material			
5. ¿Con qué constancia?	En la casa el contenido de las lecciones	Organization and transformation			
6. ¿Duolingo te ayudan comprender las clases?	Si	Self evaluation+			
7¿Te gustaría seguir <i>utilizando duolingo</i>?	Si	Self- evaluation+			
	Si porque me ayudan más a mis capacidades	Self-evaluation (Zimmerman)			

8. ¿Te gusta la recompensa que ofrece la aplicación					
9. ¿En qué nivel te encuentras ahora?	las lecciones de los viajes	Record Keeping (Zimmerman)			

Interview 2

Hola Nicolás estamos aquí para hacerte unas preguntas acerca de Duolingo y la encuesta va a ser llevada en español

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1.¿Tiene instalado duolingo en algún dispositivo cuál?	En un Android	Organization and transformation (Zimmerman)		

<p>2 . ¿Cuándo ingresas a duolingo en que momento del día?</p>	<p>En la noche</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>3. ¿ En qué lugares utiliza la aplicación?</p>	<p>En la escuela</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>4. ¿Usas lo aprendido en duolingo en la clase de inglés?</p>	<p>Si</p>	<p>Reviewing the material+</p>		
<p>5. ¿Con qué constancia?</p>	<p>En las tardes después del colegio</p>	<p>Organization and transformation (Zimmerman)</p>		

6. ¿Duolingo te ayudan comprender las clases?	Si	Reviewing the material+		
7. ¿Te gustaría seguir <i>utilizando duolingo</i>?	Si	Self- evaluation		
8. ¿Te gusta la recompensa que ofrece la aplicación	Si	Self- evaluation		
9. ¿En qué nivel te encuentras ahora?	De los alimentos	Record keeping (Zimmerman)		
10.. ¿Te logras concentrar en la aplicación?	Si	Self- evaluation		
11. La recomendarías?	Si a mis padres y amigos para			Recognizing the usability of the application

	que aprendan otro idioma.			
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Interview 3

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1.¿Tiene instalado duolingo en algún dispositivo cuál?	en tabla en el celular y el computador	Organization and transformation (Zimmerman)		
2 . ¿Cuándo ingresas a duolingo en que momento del día?	En la mañana	Organization and transformation (Zimmerman)		
3. ¿En qué lugares utiliza la aplicación?	casa y cuando salgo con el celular	Organization and transformation (Zimmerman)		

<p>4. ¿Usas lo aprendido en Duolingo en la clase de inglés?</p>	<p>Si en las clases</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>5. ¿Los contenido de las lesiones de Duolingo te ayudaban comprender cosas que no sabías?</p>	<p>Si</p>	<p>Reviewing the material</p>		
<p>6. ¿Te gustaría seguir usando Duolingo por fuera del colegio de las clases?</p>	<p>Si</p>	<p>Self- evaluation</p>		
<p>7. ¿Te gustaría seguir <i>utilizando duolingo</i>?</p>	<p>si porque avanzo</p>	<p>Self-evaluation Zimmerman</p>		
<p>8. ¿En qué nivel te encuentras ahora?</p>	<p>En el segundo nivel</p>	<p>Record keeping (Zimmerman)</p>		

<p>9. ¿Has considerado que alguna tarea es fácil oh difícil en Duolingo ?</p>	<p>Fácil</p>	<p>Reviewing material (Zimmerman)</p>		
<p>10. ¿Te logras concentrar cuando realizas las actividades de Duolingo ?</p>	<p>Es fácil porque utilizo el micrófono</p>	<p>Self-evaluation (Zimmerman)</p>		

Interview 4

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1.¿Tiene instalado duolingo en algún dispositivo cuál?	Lo tengo en mi celular, portátil y mi computador de mesa	Organization and transformation (Zimmerman)		
2 . ¿Cuándo ingresas a duolingo en que momento del día?	Cuando recibo notificación de las actividades En la mañana	Organization and transformation (Zimmerman)		
3. ¿ En qué lugares utiliza la aplicación?	Colegio, casas y practico.	Organization and transformation (Zimmerman)		

<p>4. ¿Tu has usado algo de duolingo en la clase</p>	<p>Sí, claro</p>	<p>Reviewing the material</p>		
<p>5. ¿ Los contenidos de las lecciones te ayudaban a comprender lo que no sabias</p>	<p>La mayoría de las cosas la sabia, pero yo puedo practicar y memorizar aunque necesito ayuda para comprender</p>	<p>Self-evaluation (Zimmerman)</p>		
<p>6. ¿Duolingo te ayuda a comprender las clases?</p>	<p>Si</p>	<p>Reviewing the material+</p>		
<p>7¿Te gustaría seguir utilizando duolingo?</p>	<p>Si porque puedo practicar</p>	<p>Self-evaluation+</p>		

<p>8. ¿Te gusta la recompensa que ofrece la aplicación</p>	<p>No sé por qué no entiendo las recompensas</p>		<p>I would not change my opinions in order to please someone else or win their favor.</p>	
<p>9. ¿En qué nivel te encuentras ahora?</p>	<p>40 y algo</p>	<p>Record keeping (Zimmerman)</p>		
<p>10.. ¿Considera que las tareas son fáciles o difíciles?</p>	<p>La de los viajes difícil</p>	<p>Reviewing material (Zimmerman)</p>	<p>.</p>	
<p>11.. ¿Tu crees que logras concentración cuando haces las actividades?</p>	<p>Si</p>	<p>Self-evaluation+</p>		

Interview 5

Hola Álvaro como estás, estamos aquí para hacerte una encuesta acerca de Duolingo.

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1. ¿Tiene instalado duolingo en algún dispositivo cuál?	Si celular	Organization and transformation (Zimmerman)		
2. ¿Cuándo ingresas a duolingo en que momento del día?	En la tarde	Organization and transformation (Zimmerman)		
3. ¿ En qué lugares utiliza la aplicación?	Casa	Organization and transformation (Zimmerman)		

<p>4. ¿Usas lo aprendido en duolingo en la clase de inglés?</p>	<p>Si desde las tareas y las unidades</p>	<p>Reviewing materials (Zimmerman)</p>		
<p>5. ¿Los contenidos de las lecciones de duolingo te ayudaban a comprender las lecciones mejor</p>	<p>Si</p>	<p>Reviewing the material</p>		
<p>6. ¿Te gustaría seguir usando duolingo fuera de la clase?</p>	<p>Si lo necesitara lo usaría, afuera.</p>	<p>Self- evaluation(Zimmerman)</p>		
<p>7. ¿Te gusta las recompensas que ofrece duolingo ?</p>	<p>Si porque me da satisfacción</p>	<p>Self- evaluation(Zimmerman)</p>		
<p>8. ¿En qué nivel te encuentras ahora?</p>	<p>Llevo por ahí 7 o 8 lecciones y</p>	<p>Record keeping</p>		

	trabajo desde celular.	(Zimmerman)		
9. ¿Consideras algunas tareas fáciles o difíciles?	Son demasiado fáciles		I would not change my opinions in order to please someone else or win their favor.	

Interview 6

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1. ¿Cómo te ha parecido la experiencia con duolingo?	Hasta ahora Buena	Reviewing material (Zimmerman)		
2. Tiene instalado duolingo en algún dispositivo cuál?	Lo busco en google. En el computador	Organization and transformation (Zimmerman)		
3. ¿Cuándo ingresas a duolingo en que momento del día?	Cuando llego del colegio en las tardes	Organization and transformation (Zimmerman)		

<p>4. ¿En qué lugares utiliza la aplicación?</p>	<p>En la casa</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>5. ¿Usaste lo aprendido en duolingo en las clases de inglés?</p>	<p>Si la mayor parte del tiempo en las clases de inglés.</p>	<p>Reviewing material (Zimmerman)</p>		
<p>6. ¿El contenido de las lesiones duolingo te ayudaban comprender cosas que no sabías?</p>	<p>Sí, muchas veces</p>	<p>Self- evaluation</p>		
<p>7. ¿Te gustaría seguir utilizando duolingo?</p>	<p>Sí.</p>	<p>Self-evaluation</p>		
<p>8. ¿Te gusta la recompensa que ofrece la aplicación</p>	<p>Más o menos.</p>		<p>I would not change my opinions in order to please</p>	

			someone else or win their favor.	
9. ¿En qué nivel te encuentras ahora?	En nivel cinco	Record keeping (Zimmerman)		
10. ¿Consideras algunas tareas fáciles o demasiados fácil?	A veces no las entiendo.	-Self-evaluation (Zimmerman)		
11. ¿Te logras concentrar al realizas las tareas de duolingo?	Sí	Self-evaluation		

Interview 7

<p>1. ¿Tiene instalado duolingo en algún dispositivo cuál?</p>	<p>Lo tengo en mi computador y eso me avisa cuando tengo una actividad nueva.</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>2. ¿Cuándo ingresas a duolingo en que momento del día?</p>	<p>En la tarde o a veces en la noche</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>3. ¿ En qué lugares utiliza la aplicación?</p>	<p>En mi cuarto</p>	<p>Organization and transformation (Zimmerman)</p>		

<p>4. Has implementado lo que aprendes en Duolingo durante las clases de inglés?</p>	<p>Si he aprendido muchas palabras nuevas.</p>	<p>Self- evaluation (Zimmerman)</p>		
<p>5. El contenido te ayudaron a comprender lesiones que no sabías?</p>	<p>Sí algunos verbos que no sabía.</p>	<p>Self- evaluation (Zimmerman)</p>		
<p>6. Te gustaría seguir usando duolingo fuera de clase ?</p>	<p>Sí porque siento que es una buena herramienta para aprender ingles</p>	<p>Reviewing material (zimmerman)</p>		
<p>7. Te gusta las recompensas que te dan en duolingo?</p>	<p>Sí porque siento satisfacción con el trabajo que he hecho</p>	<p>Self-evaluation (Zimmerman)</p>		

<p>8. . En qué nivel te encuentras de acuerdo a la aplicación?</p>	<p>En el seis</p>	<p>Record keeping (zimmerman)</p>		
<p>9. .consideras que las tareas que propone duolingo son fáciles o difíciles?</p>	<p>desde el principio son fáciles, pero a medida que van aumentando van difíciles</p>	<p>Reviewing the material (zimmerman)</p>		
<p>9. Te logras concentrar en duolingo ?</p>	<p>Sí porque todo lo hago yo sola</p>	<p>Self-evaluation (Zimmerman)</p>		
<p>10. Recomendarías la aplicación?</p>	<p>Sí porque me gusta demasiado.</p>	<p>Reviewing the material</p>		

		(Zimmerman)		
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Interview 8

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
<p>1. ¿Tiene instalado duolingo en algún dispositivo cuál?</p>	<p>No yo solo ingreso a la web y ahí realizo mis actividades y con los links que me da la profesora yo entro.</p>	<p>Information seeking (Zimmerman)</p>		
<p>2. ¿Cuándo ingresas a duolingo en que momento del día?</p>	<p>En las tardes cuando yo me desocupo de mis tareas , para estar más concentrada</p>	<p>Organization and transformation(Zimmerman)</p>		
<p>3. ¿En qué lugares utiliza la aplicación?</p>	<p>En mi cuarto para concentrarme mejor.</p>	<p>Organization and transformation(Zimmerman)</p>		

<p>4. ¿Usas lo aprendido en duolingo en la clase de inglés?</p>	<p>Sí, muchas veces.</p>	<p>Reviewing the material</p>		
<p>5. ¿Duolingo te ayudan comprender las clases?</p>	<p>Si algunas cosas como el vocabulario</p>	<p>Reviewing material (Zimmerman)</p>		
<p>6. ¿Te gustaría seguir utilizando duolingo fuera de clases?</p>	<p>Sí porque es más interactivo</p>	<p>Reviewing material (Zimmerman)</p>		
<p>7. ¿Te gusta la recompensa que ofrece la aplicación?</p>	<p>Si porque puedo avanzar mejor y así veo mis resultados</p>	<p>Goal setting (Zimmerman)</p>		
<p>8. ¿En qué nivel te encuentras ahora?</p>	<p>No se no me he dado cuenta, pero creo que la de 15 la de los animales.</p>			

<p>9. . Consideras que las tareas de Duolingo son fáciles o difíciles.</p>	<p>Son fáciles porque son como repaso de lo que hemos dado</p>	<p>Reviewing material (Zimmerman)</p>		
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Interview 9

QUESTIONS	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
<p>1. Cómo te ha parecido la experiencia de Duolingo?</p>	<p>Buena porque osea, me ha servido para recordar</p>	<p>Self-evaluation (Zimmerman)</p>		
<p>2. ¿Tiene instalado duolingo en algún dispositivo cuál?</p>	<p>Sí en el computador</p>	<p>Organization and transformation (Zimmerman)</p>		

<p>3. . ¿Cuándo ingresas a duolingo en que momento del día?</p>	<p>Yo entro entre las 4 y las 6</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>4. ¿Porque te habías demorado en entrar, porque eres uno de los que has estado activo siempre, pero al comienzo no?</p>	<p>Porque al comienzo no sabía cómo entrar, pero cuando entendí los pasos, me registré</p>		<p>I would not change my opinions in order to please someone else or win their favor.</p>	

<p>5. . En qué lugares usas la aplicación?</p>	<p>Por lo general estoy en la casa</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>6. Alguna vez usaste lo que aprendiste en duolingo, durante las clases de inglés?</p>	<p>Sí, es que yo antes lo usaba también.</p>	<p>Reviewing materials (Zimmerman)</p>		
<p>7. En qué nivel te encuentras en duolingo ?</p>	<p>Por Las Comidas por Lo General Son Fáciles Y En lo Que Me Equivoco A veces Es En Los Audios</p>	<p>Record keeping (Zimmerman)</p>		
<p>8. Y Te Logras Concentrar Al Realizar Las Actividades?</p>	<p>De Duolingo Si Porque A Esa Hora</p>		<p>I would not</p>	<p>.</p>

	<p>Mi Hermano Está Viendo Televisión No Me Molesta Ok Perfecto Gracias</p>		<p>change my opinions in order to please someone else or win their favor.</p>	
<p>9. Recomendarías la aplicación?</p>	<p>Sí, claro</p>			<p>- Recognizing the usability of the application</p>

Interview 10

QUESTION	ANSWERS	ZIMMERMAN	SNYDER	DATA DRIVEN
1. ¿Tiene instalado duolingo en algún dispositivo cuál?	Sí			
2. ¿Cuál?	El celular			
3. ¿Cuándo ingresas a duolingo en que momento del día?	En la noche	Organization and transformation (Zimmerman)		

4. ¿En qué lugares utiliza la aplicación?	En la casa.	Organization and transformation (Zimmerman)		
5. ¿Usas lo aprendido en duolingo en la clase de inglés?	Sí.	Reviewing the material		
6. ¿El contenido de las lesiones de duolingo te ayuda comprender las clases?	Bastante lo usé el año pasado	Reviewing materials (Zimmerman)		
7. ¿Te gustaría seguir utilizando duolingo ?	Si	Self- evaluation		
8. ¿Te gusta la recompensa que ofrece la aplicación?	Sí porque nos ayuda a resolver nuestras capacidades y	Reviewing materials		

	<p>aprender muchas cosas diferentes idiomas</p>			
<p>9. ¿En qué nivel te encuentras ahora?</p>	<p>estoy un nivel avanzado 10</p>	<p>Record keeping (Zimmerman)</p>		<p>.</p>
<p>10. Recomendarías la aplicación ?</p>	<p>Sí.</p>			<p>Recognizin g the usability of the application</p>

Interview 11

<p>1. ¿Tiene instalado duolingo en algún dispositivo cuál?</p>	<p>En el portátil, pero no celular</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>2. ¿Cuándo ingresas a duolingo en que momento del día?</p>	<p>Cada tres días, en la tarde como a las 6</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>3. ¿En qué lugares utiliza la aplicación?</p>	<p>Lo uso en la sala de mi casa.</p>	<p>Organization and transformation (Zimmerman)</p>		
<p>4. ¿Usas lo aprendido en duolingo en la clase de inglés?</p>	<p>Algunas veces</p>	<p>Reviewing material (Zimmerman)</p>		

<p>5. Cómo te parece el contenido de la lección?</p>	<p>Me parecen fácil y depende por cuando vas subiendo nivel se vuelve más complicado</p>	<p>Reviewing material (Zimmerman)</p>		
<p>6. ¿Duolingo te ayudan comprender las clases?</p>	<p>Sí</p>	<p>Reviewing the material</p>		
<p>7. ¿Te gustaría seguir utilizando duolingo?</p>	<p>Si</p>	<p>Self-evaluation</p>		
<p>8. ¿Te gusta la recompensa que ofrece la aplicación</p>	<p>Si me gusta porque me doy cuenta que voy bien</p>	<p>Self-evaluation (Zimmerman)</p>		
<p>9. ¿En qué nivel te encuentras ahora?</p>	<p>700</p>	<p>Record keeping. (Zimmerman)</p>		
<p>10. Consideras que algunas de las lecciones son fáciles o difíciles?</p>	<p>Demasiado fáciles</p>		<p>I would not change my</p>	

			opinions in order to please someone else or win their favor.	
11. Te logras concentrar, cuando usas Duolingo?	Me concentro pocas a veces, porque lo hago en mi la sala de mi casa		I would not change my opinions in order to please someone else or win their favor.	

APPENDIX D Lesson Plan

Name of the teacher: Rosanna Molina	
Class/grade: 6 th grade	Number of students: 21
Average ages of students: 12-13	
Unit / Topic: Wild World	Level of students: Advanced
Alloted time: 50 mins	
<p>Goal (s) or standard (s):</p> <p>Language objective: By the end of the course, Students will have:</p> <ul style="list-style-type: none"> • Apply the use of quantifiers. <p>Skill objectives for this class: By the end of the class, Students will have</p> <ul style="list-style-type: none"> • Identified vocabulary related to animals and their body parts • Showed comprehension in order to complete the description of an animal. • To listen and understand questions about situations with a animals, and their abilities. 	
Assumed knowledge:	

Sst know about there is / there are.

Most of them know about likes and dislikes

Sts also know some vocabulary related to animals

Language aspects or content that will be developed in this lesson:

Animals, parts of the body, negative prefixes.

Materials that will be used in this lesson:

Achivers A 1 + page. 73

Video beam, Digital book, audio cd, printed pictures,

Class Stage	Objective	Teacher's procedure and Activities students will perform	Materials	Type of interaction	Allotted time
(Presentation, practice, evaluation, expansion). Please, specify what kind of practice (controlled/guided/free)	(Specify which specific objectives you are aiming at)	(Specify in detail the activities students need to perform and the teacher's procedure)	(Specify the material you will use (if any) with the activities). Not all activities require materials.	(Specify the type of interaction : Teacher lead; individual work; group work)	(Specify the time the activity will take)

<p>Lead-in</p>	<p>- Introduce wild animals and what their abilities are.</p>	<p>Teacher will write some words on the board related to the classification of animals: Mammal, reptile, bird, insect. Teacher will write an animal in each category as example. Then,</p>	<p>Flashcards and names of the categories written in different colors</p>	<p>Group work the teacher leads the activity and students express and write the knowledge they already know.</p>	<p>5 minutes</p>
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		<p>teacher will ask if any knows about the list and will ask students to write more examples.</p>			
Input	<ul style="list-style-type: none"> - Classify animals into amphibians and reptiles 	<p>Teacher will show images about different wild animals in a collage then, teacher will</p>			<p>10 mins</p>

		ask if they know where the animals live? The countries where they live, the habitat where they live, what kind of food do they eat. After talking a little bit about animals we will			
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		<p>establish a definition for reptile and amphibian.</p> <p>Students will classify different animal into this two kind of animals.</p>			
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<p>Listening Activity (practice)</p>	<p>- To show understanding of an oral text.</p>	<p>-Ss will listen to a zoo guide showing the zoo to a family the zoo.</p> <p>Then, students will answer questions related to the audio.</p> <p>What the characters of the audio observe in the zoo.</p>	<p>Audio Cd Achievers a1 page 75</p>	<p>Media-Ss</p>	<p>15 mins</p>
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<p>Output</p>	<ul style="list-style-type: none"> - Put in practice information learned in the class about origin, habitat and characteristics of the animals. 	<p>Taking into account the animals seen and talked in the book and in the class Ss will make a poster presentation about an animal they chose</p> <p>The, they will present the poster with animal factfile to the class.</p>	<p>Markers, cardboard s.</p>	<p>GW Whole-Class</p>	<p>15Mins</p>
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ASSIGNMENT	- Practice the vocabulary of the animals	Practice in Duolingo platform Animals unit.	Computer, mobile or tablet	Whole class	5 min.
	-				

APPENDIX E



Post survey

P1  Guardar como ▼

¿TIENES DESCARGADO DUOLINGO AHORA MISMO ?

Answered: 7 Skipped: 0

RESPUESTAS (7) [NUBE DE PALABRAS](#) [ETIQUETAS \(0\)](#)

Aplicar a las seleccionadas ▼ Filtrar por etiqueta ▼ Buscar respuestas  

Mostrando 7 respuestas

<input type="checkbox"/> No 07/04/2019 21:50	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> Si 07/04/2019 20:49	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> Si 07/04/2019 19:05	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> Si 07/04/2019 18:54	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> No. 07/04/2019 18:41	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> No 07/04/2019 18:37	Ver las respuestas del encuestado	Agregar etiquetas ▼
<input type="checkbox"/> Si 07/04/2019 18:21	Ver las respuestas del encuestado	Agregar etiquetas ▼

¿LO USASTES EN VACACIONES ?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0)

Aplicar a las seleccionadas ▼ Filtrar por etiqueta ▼

Buscar respuestas Q ?

Mostrando 7 respuestas

Si, pero pocas veces

07/04/2019 21:50

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Si

07/04/2019 20:49

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Si

07/04/2019 19:05

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Muy poco

07/04/2019 18:54

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Si.

07/04/2019 18:41

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Si

07/04/2019 18:37

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

Un poco

07/04/2019 18:21

[Ver las respuestas del encuestado](#)

[Agregar etiquetas](#) ▼

¿TE GUSTARÍA VOLVERLO A USAR EN CLASE ?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0)

Aplicar a las seleccionadas ▼ Filtrar por etiqueta ▼

Buscar respuestas



Mostrando 7 respuestas

Si aprendo mucho y es didactico

07/04/2019 21:50

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▼](#)

Si

07/04/2019 20:49

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▼](#)

Si

07/04/2019 19:05

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▼](#)

Si

07/04/2019 18:54

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▼](#)

No.

07/04/2019 18:41

[Ver las respuestas del encuestado](#)

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Tal vez

07/04/2019 18:37

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No


07/04/2019 18:21

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¿HACES LOS EXAMENES EN DUOLINGO O SI PREFERES PAPER BASED?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0) Aplicar a las seleccionadas ▼ Filtrar por etiqueta ▼Buscar respuestas  

Mostrando 7 respuestas

 En duolingo
07/04/2019 21:50 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#) Exámenes en duelingo
07/04/2019 20:49 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#) Si
07/04/2019 19:05 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#) En duolingo prefiero los exámenes en duolingo.
07/04/2019 18:41 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#) En duolingo
07/04/2019 18:37 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#) Duolingo
07/04/2019 18:21 [Ver las respuestas del encuestado](#) [Agregar etiquetas ▼](#)

¿TE GUSTARIA APRENDER OTRO IDIOMA CON DUOLINGO ?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0) Aplicar a las seleccionadas ▼ Filtrar por etiqueta ▼

Buscar respuestas



Mostrando 7 respuestas

 Si

07/04/2019 21:50

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) Si

07/04/2019 20:49

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) Si

07/04/2019 19:05

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) Si

07/04/2019 18:54

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) Si.

07/04/2019 18:41

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) No


07/04/2019 18:37

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#) Si

07/04/2019 18:21

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#)

P6

 Guardar como ▾

¿Necesitas tutorial antes de usar Duolingo , consideras que es buena idea ?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0)

Aplicar a las seleccionadas ▾ Filtrar por etiqueta ▾

Buscar respuestas  

Mostrando 7 respuestas

No ya lo he aprendido a usar

07/04/2019 21:50

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[Agregar etiquetas ▾](#)

No

07/04/2019 20:49

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▾](#)

No porque ya lo se usar

07/04/2019 19:05

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▾](#)

No, no me parece algo basico

07/04/2019 18:54

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▾](#)

si,porque si soy un novato en la abitacion puedo aprender como se utiliza,sus funciones, y mis objetivos.

07/04/2019 18:41

[Ver las respuestas del encuestado](#)

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No gracias

07/04/2019 18:37

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▾](#)

No

07/04/2019 18:21

[Ver las respuestas del encuestado](#)

[Agregar etiquetas ▾](#)



¿La clase en Duolingo me permite ver los objetivos mas claros ?

Answered: 7 Skipped: 0

RESPUESTAS (7) NUBE DE PALABRAS ETIQUETAS (0)



Aplicar a las seleccionadas ▼

Filtrar por etiqueta ▼

Buscar respuestas



Mostrando 7 respuestas



Si porque es mas rapido aprendiendo de una manera mas didacticas a las clases normales y podemos repetirlas mediante un ciclo

07/04/2019 21:50

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Si

07/04/2019 20:49

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#)

Si por que lo explica muy bien

07/04/2019 19:05

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Si, a veces

07/04/2019 18:54

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La verdad es que No,yaque es una manera muy divertida de aprender, nos podemos perder y olvidar los.

07/04/2019 18:41

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Si

07/04/2019 18:37

[Ver las respuestas del encuestado](#)[Agregar etiquetas ▼](#)

Si

07/04/2019 18:21

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APPENDIX F

Dashboard entries days and time.

Nov 7, 6:00p.m- 6:13 p.m. (Miércoles)

Nov 8, 6:13 p.m. 6:26 p.m.(Jueves)

Nov 11, 3:16 p.m.- 4:52 p.m. (Domingo)

Nov 13, 4:34p.m.- 5:49 p.m. (Martes)

Nov 15, 6:45p.m.- 6:49p.m.(Jueves)

Nov 17, 7:28 p.m. (Sábado)

Nov 18, 8:20 p.m.-839 p.m. (Domingo)

Nov 18, 10:43 p.m. (Domingo)

Valentina Feria

Octubre 21, 3:13 p.m.-3:37 p.m. (Domingo)

Octubre 26, 4:04p.m.-4:22 p.m. (Viernes)

Noviembre 2, 5:28p.m.-5:54 p.m. (Viernes)

Noviembre 3, 1:40 p.m.- 3:34p.m. (Sábado)

Noviembre 3, 9:11p.m- 10-16 p.m. (Sábado)

Noviembre 7, 6:23p.m.-6:46 p.m. (Miércoles)

Noviembre 15, 12:53 p.m.-2:24p.m.(Jueves)

Noviembre 18, 9:57p.m.-10:20 p.m. (Jueves)

Alvaro Sarmiento

Noviembre 9, 4:01p.m.-6:01 p.m. (Martes)

Noviembre10, 12:32p.m.(Miércoles)

Noviembre 11,10:56 a.m.-11:05 a.m.(Jueves)

Noviembre 14, 6:12p.m.6:43 p.m.(Domingo)

Noviembre 15, 4:44p.m.-5:58p.m (Lunes)

David Pabón

Octubre 16, 9:55p.m. (Martes)

Octubre 22, 11 p.m. (Lunes)

Octubre 30, 7:03 p.m. (Martes)

Octubre 31, 6:00p.m -6:03p.m. (Miércoles)

Noviembre 1, 10 p.m.(Jueves)

Noviembre 5, 5:31 p.m.(Lunes)

Noviembre 6, 6:20 p.m. (Martes)

Noviembre 8, 6:03 p.m.(Jueves)

Noviembre 11, 9:59 a.m-1:28 p.m. (Domingo)

Noviembre 13, 8:53p.m.- 9:17 p.m. (Martes)

Noviembre 14, 8:05p.m. (Miércoles)

Jesús Nuñez

Noviembre 10, 3:24 p.m.-338p.m (Sábado)

Noviembre 10, 8:59p.-m-9:04 p.m. (Sábado)

Noviembre 11, 10:49 a.m.-12:19 p.m. (Domingo)

Noviembre 13,9:58 a.m.(Martes)

Noviembre 13, 9:44 p.m.9:54p.m. (Martes)

Noviembre 14, 12:37 p.m.- 12:40 p.m. (Miércoles)

Noviembre 15, 4:06 p.m. (Jueves)

Laura Gonzalez

Octubre 18, 4:49 p.m.-5:07 p.m. (Jueves)

Octubre 18, 8:55 p.m.-9:58p.m. (Jueves)

Octubre 21, 12:41p.m -1:21 p.m. (Domingo)

Octubre 30, 7:28 p.m.8:16 p.m. (Martes)

Noviembre 7, 1:30 p.m.-7:38 p.m. (Miércoles)

Noviembre 9, 4:45 p.m.-5:59 (Viernes)

Noviembre 9, 8:34p.m.,-10:10 p.m. (Viernes)

Noviembre 9, 4.45p.m.-5:59 p.m. (Viernes)

Noviembre 9, 8:34p.m.-10:10p.m. (Viernes)

Nicolás Campo

Octubre 18, 3:43p.m.-4:15 p.m. (Jueves)

Octubre 19, 4:12p.m.-5:10 p.m. (Viernes)

Octubre 19, 10:50p.m.-11:09p.m. (Viernes)

Octubre 30, 9:26 p.m.-11-08 p.m. (Martes)

Noviembre 1, 11:14p.m-11-43 p.m. (Jueves)

Noviembre 2, 1204a.m.-12:10 a.m. (Viernes)

Nov 2, 4:51p.m.-4:58p.m. (Viernes)

Nov 6, 8:27p.m.-10:50p.m. (Martes)

Noviembre 7, 8:16p.m.-8:25p.m. (Miércoles)

Noviembre 8, 746p.m.-8:16p.m. (Jueves)

Noviembre 8, 11:58p.m. (Jueves)

Noviembre 9, 12:01p.m.-12:34 p.m. (Viernes)

Noviembre 10, 6:59p.m. -7:04 p.m. (Sábado)

Noviembre 11, 5:16p.m.--5:35p.m. (Domingo)

Noviembre 12, 12:11p.m-3.55p.m. (Lunes)

Noviembre 13, 9:44 p.m.9:54 p.m. (Martes)

Noviembre 14, 10:48 p.m-11:20p.m. (Miércoles)

Noviembre 16, 11:10 p.m.-11:50 p.m. (Viernes)

Santiago Guzmán

Nov 1, 5:59 p.m. (Jueves)

Nov 8, 4:42p.m. (Jueves)

Noviembre 9, 9:52p.m.-10:53p.m. (Viernes)

Noviembre 10, 11:06a.m.11:33 a.m. (Sábado)

Noviembre 12, 10:47 a.m.-10:53 a.m. (Lunes)
















Noviembre 20, 7:49 am (Martes)

Enero 6, 2019 9:52 a.m. (Domingo)

21st of November last day of classes

APPENDIX G

Student's score Duolingo dashboard and Assignment reports.

 Alejandro Candanoza 990 XP	- - 3	 AlvaroSarmiento. 3855 XP	3 - -
 Camila Cárdenas 840 XP	4 5 -	 david pabon	3 5 1
 Dylan Contreras 500 XP	2 3 1	 Dylanplay245 50 XP	- - 6
 Estebaqn 334 XP	2 - 2	 Jesús David Nuñez Becerra 220 XP	3 3 -
 karlafigueroajaime 1036 XP	4 3 1	 Laura Gonzalez Soto 1660 XP	2 5 2
 navy 430 XP	3 4 -	 nicolasyesid.j12 1185 XP	5 4 -
 Santiago 2060 XP	4 5 -	 Santiago Guzman 668 XP	1 2 -
 valentina feria 5120 XP	3 6 -		