A survey was carried out at Universidad Central del Ecuador, during which young learners, boys and girls aged 17 – 20, completed a questionnaire on their experience using Duolingo. These opinions were later analyzed statistically in order to reach conclusions about the effectiveness of the Duolingo application. Interviews with two teachers with extensive experience of MALL and CALL were also carried out, and their opinions were used to inform recommendations towards the use of the Duolingo application in an ESL classroom. This study found that Duolingo helps students to improve their level of English, mostly in reading and writing skills and experts recommend that this application be used in conjunction with face-to-face teaching where other skills are also being developed.



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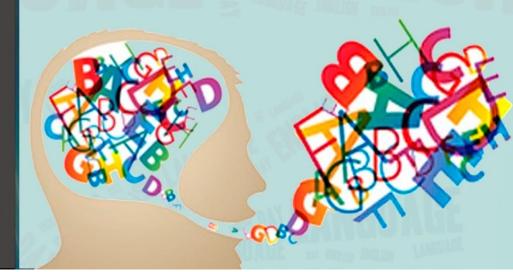




The Benefits and Drawbacks of Using Duolingo to Learn English

A Study with Young ESL Learners

Marcelo Ivan Vizcarra Bazán Edison Santiago Sanguña Loachamin Amilcar Oswaldo González Díaz Sonia Magali Arteaga Sarmiento Silvia Elizabeth Morales Morejón







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The Benefits and Drawbacks of Using Duolingo to Learn English: A Study with Young ESL Learners

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Note to reader

According to Flores (2015) "As the 21st century moves forward, the field of second language learning and instruction has become more technology oriented. For today's young learners, technology is a natural part of their lives and so is e-learning. However, the unfortunate result is that when students enter our schools, we frequently require them to "power down." Where is the interaction? Why is their world shut down because they enter a classroom?" (Taranto & Abbondanza, 2009).

As the world becomes more and more connected through advances in information and communication technologies, classroom experiences will need to reflect those same changes. Therefore, adjustment in the teaching strategies required is in accordance with the type of learners that the educators are receiving in their classrooms. Plenty of second language (L2) learners are part of a generation that Prensky (2001) describes as "Digital Natives". These learners process information differently and the educational system does not always fit their needs. In addition, more learners are aware of the benefits of the Internet and the strength of "Connectivism" as explained by Siemens (2005), where knowledge resides outside nodes of specialized information.

At one point, Computer Assisted Language Learning (CALL) was instrumental in connecting with the L2 learner. Then, later the integration of Web 2.0 moved the L2 learning process further away from the typical classroom setting. Both technology-oriented strategies fitted their purposes and were successful. But none of these two strategies worked directly with the psychological aspect of motivation. Brown (1994) sees motivation as a necessary factor that the learner needs in order to acquire an L2. Students are innately motivated by using technology because it is a natural part of their





lives (Ribble, 2009). Therefore, teachers need to understand what opportunities Web 2.0 tools provide for teaching and learning, what kinds of barriers they may encounter when using them, and how to effectively implement the new tools in their teaching. "Teachers of students who regularly use Web 2.0 technologies must develop an understanding of new digital literacies and infuse them with their instructional practices" (Greenhow, Robelia, & Hughes, 2009).

Over the past ten years, the use of the mobile phone as a learning tool has increased greatly (Gholami & Azarmi, 2012). Mobile learning brought to light diverse methods and techniques to assist language learning and learning in general. What essentially characterizes the use of mobile phones for learning is their portability. Thus, in MALL (Mobile Assisted Language Learning) there is no need for learners to sit in a classroom or at a computer to get the material. Such learning is reinforced when people experience shortage of free time due to working for long hours. The use of mobile devices was considered by Miangah and Nearat (2012) as an extension, but not a substitution for existing learning devices.

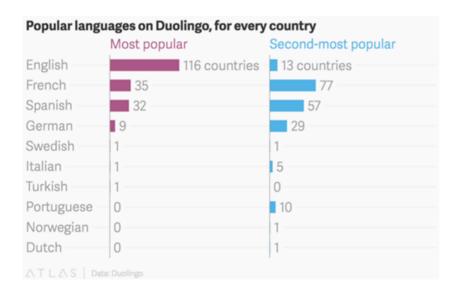
According to Deng, Q. & Trainin, G. (2015) Mobile devices with robust Internet connections have proliferated in educational use since the advent of the iPad in 2010. The new mobile device ecosystems led to the rise of thousands of free or low-cost applications (apps), which refer to computer programs designed to run exclusively on mobile devices. For instance, more than 775,000 apps were available as of January 2013 (Pure Oxygen Labs, 2013), and certain apps have the potential to help learners individualize immediate learning in ways that has never happened before. For example, empirical studies reported that iPad apps support the development of speaking, reading, and writing skills (Harmon, 2012; Lys, 2013; McClanahan, Williams, Kennedy, & Tate, 2012) and the enhancement of learning motivation (Kinash, Brand, & Mathew, 2012).





The importance of learning languages in our modern global world and the advanced technology we have nowadays have led to the creation of different electronic options for language learning. Applications for smart phone/tablet are the most used options, and within this area there are a wide range of choices available for people who want to learn different languages. Duolingo is an app designed for the smart phone that is leading the market, and the majority of its users use it to learn English, in over 100 countries around the world as we can see in graph 1 Sonnad N (2016). Therefore, it is worth analyzing whether this application is effective at helping users to learn English, which skills it helps to improve, and which methods the application employs to teach English to its young users, as there is currently no Duolingo study specifically aimed at young learners.

Graph 1



Duolingo is based on the idea of games and that helps make the application more engaging for its users. The idea of using games for learning is not new. This is customary even in the case of direct interaction between teacher and student, and

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gamification is equally utilized in the e-learning process. Gamification (Deterding et al, 2011) is the use of game-play mechanics for non-game applications. Any application,

task, process or context can theoretically be gamified.

The main goal of gamification is to increase the engagement of users by using game-like

techniques such as scoreboards and personalized fast feedback (Flatla et al, 2011).

Gamification is used in several different contexts, mostly business and marketing, but it

can be useful and important in the educational environment as well. Incorporating game

elements into work activities raises motivation (Shneiderman, 2004). But we also need

to pay attention to the integration of tasks and exercises within the game design (Von

Ahn and Dabbish, 2008).

To understand why Duolingo is leading the market as opposed to other language

learning applications such as Babbel and Memrise, we need to understand how it works

and what it offers to its users. Jaskova (2014, p.15) defines Duolingo as the future in

learning languages and in global communication.

In November 2016, the language-learning website (https://www.duolingo.com/) and app

offered 66 different language courses across 23 languages; with 22 additional courses

in development. The app is available on iOS, Android and Windows 8 and 10 platforms

with about 120 million registered users across the world, and the popularity of the

Duolingo application suggests that it can help learners with English.

The software uses cartoons as well as matching tasks to teach vocabulary, and uses a

trial-and-error translation method to teach grammar points (students translate English

sentences into their native language and vice versa, but no explicit teaching of grammar

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aspects are provided). The application is gamified in that users must complete each

short bite-sized level before they can move onto the next, and points are earned upon

completing each level, which can be highly motivating.

Certainly, another big positive aspect of Duolingo is that it offers all of its language

courses free of charge, and it is available to anyone with a smartphone or a tablet. The

application is easy to use, visually attractive, and users also receive instant feedback

and corrections for any mistakes.

However, there are also some potential drawbacks. The application is not

communicative and there is little speaking involved. Additionally, in its very nature it is

focused on accuracy rather than fluency; for the application to give feedback to the user.

there needs to be a predictable answer so there is usually only one correct acceptable

answer. Also, the translation method is heavily employed by the application. Therefore, if

your first language is not commonly spoken there may not be an option to select this on

Duolingo.

There are only 21 first languages from which you can choose to learn English. The

content of the software is not necessarily suited to the students' cultural background,

and it is not tailored to what the student wants or needs to learn. The level of Duolingo

only covers to about B1, so it is not suitable for more advanced learners.





Chapter 1. Theoretical background



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Chapter 1. Theoretical background

1.1 Literature review

The methodological basis for mobile learning using apps has already been pointed out

by authors such as Klopfer (2008), who discussed the main advantages of applications

such as Duolingo: "... their portability, their ease of access and connection to networks

and social interaction, as well as their possibility of personalization".

Vesselinov and Grego, in 2012, used an experimental design to focus on how Duolingo

helps adults to learn English. They concluded that their students gained a mean rate of

8.1 points on a standardized test for each hour of study. There was, however,

substantial variability in rate: the standard deviation was 12.1.

Chen carried out further research in 2016, comparing 7 different language learning

applications, and the result of that study was that Duolingo came first in comparison with

six other applications. Chen found that there is no single language-learning app that

provides a one-size-fits-all solution to meet adult learners' language learning needs.

However, mobile learning apps (especially Duolingo) provide multiple methods for adult

learners to practice language and to enhance their skills. Chen X (2016). It should be

mentioned that this study was done with adult immigrants in the USA, but not with young

learners. Therefore, the results of Chen's study contribute to the literature of mobile

learning targeting adult learners and there is a necessity to do a study with young

learners and compare the results.



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This research is aimed at weighing up the benefits and drawbacks of using Duolingo as a language learning resource and finding out whether the use of the Duolingo Application improves young students' level of English. My study aims to investigate how effective Duolingo is as a language learning tool for young ESL leaners, which skills young learners are improving through Duolingo, and which methods that the application uses are most effective in the opinion of young learners.

Unlike Vesselinov and Grego's study which focused on adults my study is focused on young people's opinions and perceptions of the effectiveness of the app, rather than on measuring the efficiency of language learning after using Duolingo. In other words, this study is more qualitative, and focuses on opinions rather than on the effectiveness of Duolingo.

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1.2. Research questions and hypotheses. Necessary plunges to drive forward the investigation

The purpose of this study is to find out if, in the opinion of young learners, using Duolingo helps them to improve their English level, and if so, which skills specifically it helps them to improve. Additionally, I plan to discover which level of students find the application more useful. Therefore, these are the three research questions the authors hope to answer through carrying out this study:

- a) Do young students feel Duolingo helps them to improve their English level?
- b) Which skills do young students think Duolingo helps them to improve?
- c) Do young low-level students (elementary pre-intermediate) view Duolingo as more effective than high level students (intermediate advanced)?

The authors' hypotheses for the above research questions are the following:

- a. Young students believe that Duolingo helps them to improve their level.
- Young students believe Duolingo helps them mainly to improve receptive skills (listening and reading) but it is less effective with productive skills (writing and speaking).
- c. Lower-level young students believe Duolingo is more effective for them
 (elementary pre-intermediate) than higher level students (intermediate advanced).





1.3. Main objectives to accomplish during the investigation process

Through this study I plan to achieve the following goals:

- 1. To analyse the different techniques that Duolingo uses to teach English.
- 2. To evaluate which methods students most like and find useful, and what improvements they would suggest.
- 3. To gather data from students' opinions and perceptions about Duolingo in order to analyse its benefits and drawbacks, and to see to what extent they feel the use of the application has improved their different skills in English.





Chapter 2. Scientific method. A road map in the investigation process



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Chapter 2. Scientific method. A road map in the investigation process

2.1. Scientific methods and techniques. Necessary hermeneutic turn

The following heading presents the method the authors designed in order to gather

opinions and information from different sources (students and English teachers) on the

benefits and drawbacks of Duolingo. the authors decided to follow a qualitative and

quantitative approach to the design method.

The quantitative data was collected by asking participants to rate different aspects of

Duolingo on a scale of 1-4. The qualitative data was collected by asking participants to

write a couple of sentences summarising their views about Duolingo. The benefit of

collecting quantitative data was so that the authors could have concrete figures in order

to answer the above-mentioned research questions and test the authors hypotheses.

The benefit of collecting qualitative data was to get more detailed opinions from the

young users that could be compared and contrasted with the teachers' opinions as well.

The reason the authors used this type of research design is because it fits with the

theoretical nature of m the authors' research. It is an effective way to gather opinions

and data from the target population (different classes of students). I the authors were

able to collate the quantitative and qualitative data collected from these questionnaires

in order to evaluate to what extent students feel Duolingo helps them improve their

English level, which skills in English are most improved thanks to the application, and

which methods used by the application are most effective according to the users.

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2.1 Context of the study and participants

The authors gathered the data at Universidad Central del Ecuador which is located in Quito city in Ecuador. The University has a good reputation, and the level of the students is good. This is a public University and one of the biggest in Ecuador. The population the authors determined were 124 students from *Universidad Central del Ecuador*, specifically students from level A2. The students were boys and girls, Spanish speakers between 17 - 20 years old. Therefore, they are <digital natives> and are used to using and learning through technology as they grew up with it and, therefore, The authors had

assumed that many of these students had had experience with Duolingo to learn

2.2. A questionnaire for young learners using Duolingo

The authors wrote and conducted their own questionnaire to collect data and opinions from young learners to find out if they use the application and if so, to find out about their experience of using it and how they feel their skills have been improved thanks to it. Using a questionnaire allowed the authors to collect both qualitative and quantitative data. we decided to use printed questionnaires that participants filled out by hand, rather than an online survey, so that we could observe the process and ensure they were not being influenced while answering the questionnaire.

The survey was carried out between the 17th of April to 21st of August 2019. It included both quantitative and qualitative questions, 20 in total, 17 quantitative and 3 qualitative. For the quantitative data participants were asked if they use the application, and if so, how frequently. With this information we collected, we was able to see how many people

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use the application in each course and calculate the median frequency of use of the application.

Participants were also asked to rate on a scale of 1-4 to what extent each of their English skills (reading, writing, speaking, listening, vocabulary and grammar) have been improved by the application, and therefore we were able to determine which skills Duolingo is most useful for, according to users. Participants were also asked to rate on a scale of 1-4 how much they enjoy the experience of using Duolingo to find out whether their opinions about this application were positive or negative overall, in this way I was be able to run a statistical test with their opinions. This survey is shown in the appendix number 1.

The authors also had quantitative questions to analyse the different techniques that Duolingo uses; participants were asked to rate on a scale of 1-4 how effective they find each of the methods that Duolingo uses e.g., translation method, dictation method etc. and we included screenshots from the application to illustrate the techniques we were referring to. Through the data gathered, we were able to determine exactly how Duolingo helps students to improve their English. The program that the authors used to process the data was Microsoft Excel. The qualitative question asked participants to write freely their opinions about what they like most and least about the application and what improvements they would suggest.

The questionnaire was designed with young learners in mind; the questions were worded as simply as possible, but using English because the authors deemed that the students had a good enough level to understand the questions in English. The content

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of the questions was created with the research questions and the objectives of the study in mind. The question sequence began with more general questions i.e. "How much time a week do you spend using Duolingo?" to more specific regarding certain methods Duolingo uses i.e. "How effective do you find the dictation method that Duolingo uses?" When asking about the specific methods of Duolingo, the questionnaire included pictures to clearly illustrate the method in question. The questionnaire began with the quantitative questions, which were all on a scale of 4, and ended with the 3 qualitative questions, this was so they could get into the mindset of thinking about Duolingo and all its aspects before writing more detailed comments.

2.3. Interview with English as a Foreign Language (E.F.L) Teachers

In order to compare students' opinions with the opinions of teachers with experience of technology as a learning tool, the authors also conducted 15 minutes interviews with E.F.L teachers who are experts in the field of MALL and CALL, in order to collect their opinions about the usefulness of Duolingo. These eight questions are shown in the appendix number 2. Although the questions are different, the aim is to see if the trends that students' answers show are sustained by teachers' opinions. Also, teachers' answers can lead to topics of a deeper study into Duolingo and other apps.

The interview design was structured with the same eight questions asked to both teachers, and the audio from interviews were recorded for later analysis. The questions began more generally about e-learning as a whole, before asking specifically about the benefits and drawbacks of Duolingo. The last question was an open question which gave the opportunity for any other comments about the application to be made.





Chapter 3. Quantitative and qualitative analysis of the main results during the experimental plan







Chapter 3. Quantitative and qualitative analysis of the main results during the experimental plan

3.1 Results from the students' questionnaires

25 students, who were the only ones who had used Duolingo, completed the questionnaire. The majority of these 25 students (60%) use Duolingo for less than one hour per week, followed by 36% who use it between one and two hours per week, and 4% who use it between three and four hours per week. These results are shown in table 1 and graph 2 below.

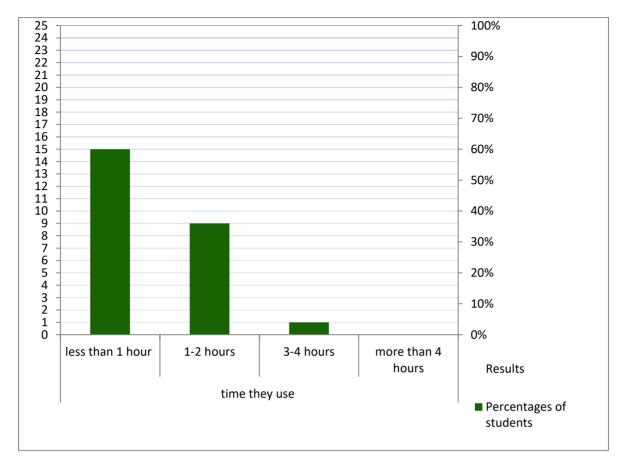
Table 1

Time per week young learners spend using Duolingo								
ETECAM Editorial Secretorethica Americana flassitivista basis	less than 1	1-2	3-4	more than 4				
	hour	hours	hours	hours				
Number of students	15	9	1	0				
Percentage of students	60%	36%	4%	0%				





Graph 2



The majority of students agreed that there had been an improvement in their General English level, after using Duolingo. In this sense, 68% of the students recognized the improvement as either some improvement or a great deal of improvement, whereas the other 32% stated that there was either a small improvement or no improvement at all. See table 2 and graph 3 below.





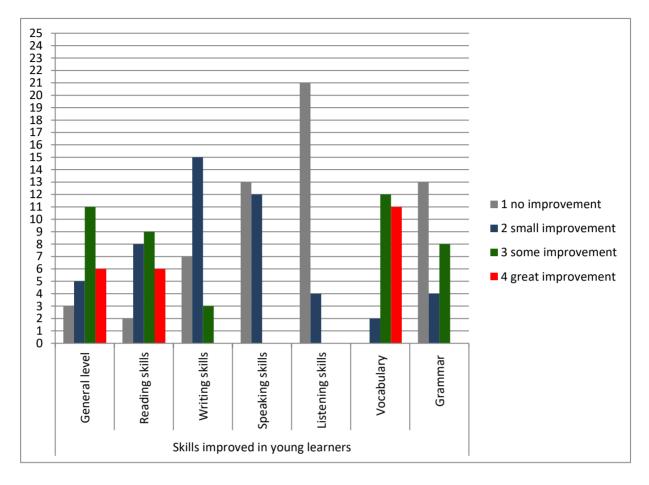
Table 2

	Skills improved in young learners						
Scale	General	Reading	Writing	Speaking	Listening		
	level	skills	skills	skills	skills	Vocabulary	Grammar
1 no improvement	3	2	7	13	21	0	13
2 small							
improvement	5	8	15	12	4	2	4
3 some							
improvement	11	9	3	0	0	12	8
4 great							
improvement	6	6	0	0	0	11	0
Results in							
percentages			T	%	T	T	
1 no improvement	12%	8%	28%	52%	84%	0%	52%
2 small							
improvement	20%	32%	60%	48%	16%	8%	16%
3 some							
improvement	44%	36%	12%	0%	0%	48%	32%
4 great							
improvement	24%	24%	0%	0%	0%	44%	0%





Graph 3



The students developed their skills mostly after using Duolingo was reading, with 60% of respondents rating the improvement made as some improvement or a great deal of improvement. Another skill that students reported that had improved after using Duolingo was writing, with 72% of respondents rating.

The other two skills: speaking and listening, had more than 50% of respondents rate. However, 48% rated the speaking skill as having made a small improvement, while only 16% rated the listening skill as having made a small improvement. The results show that students think that Duolingo helps them to improve the receptive skill of reading (more

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than any other), but they don't think that Duolingo helps them to improve the receptive

skill of listening more than the productive skills (writing and speaking).

The other two items, that were analysed to see how students felt they had improved

were: vocabulary and grammar. Students recognized that their vocabulary had improved

after using Duolingo, with 92% rating improvement made as some improvement or a

great deal of improvement. But, 52% of students said that their grammar did not improve

at all, and only 32% said that their grammar made some improvement. See table 2 and

graph 3 above.

The methods that Duolingo uses to teach English were also analysed: translation

method, dictation method, oral evaluation method, matching vocabulary and meaning

method, matching vocabulary and meaning using pictures method, and sentence

ordering method. Of these methods, the one that students found most effective was the

sentence ordering method. 100% of students rated this as quite effective or very

effective.

The two matching methods (matching vocabulary and meaning, and matching

vocabulary and meaning using pictures), were also found effective; 68% and 96%

respectively rated them as guite effective or very effective. The oral evaluation method

was the least popular with only 16% rating it as guite effective or very effective. The

dictation method was also quite poorly rated, with 36% of students rating it as not

effective at all. See table 3 and graph 4 below.





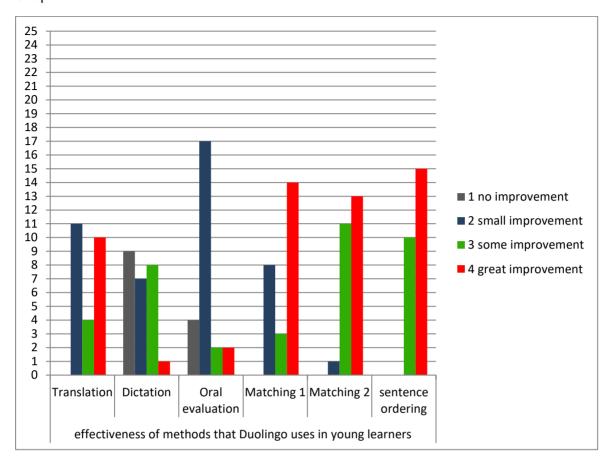
Table 3

	effectiveness of methods that Duolingo uses in young learners						
Scale			Oral	Matching	Matching	sentence	
	Translation	Dictation	evaluation	1	2	ordering	
1 no improvement	0	9	4	0	0	0	
2 small							
improvement	11	7	17	8	1	0	
3 some							
improvement	4	8	2	3	11	10	
4 great							
improvement	10	1	2	14	13	15	
Results in							
percentages				%			
1 no improvement	0%	36%	16%	0%	0%		
2 small							
improvement	44%	28%	68%	32%	4%	0%	
3 some							
improvement	16%	32%	8%	12%	44%	40%	
4 great							
improvement	40%	4%	8%	56%	52%	60%	





Graph 4



*Matching 1 Matching vocabulary and meaning

Matching 2 Matching vocabulary and meaning using pictures

The majority of students (68%) said that they enjoy using Duolingo a bit or quite a lot, 20% said they enjoy it a lot, whereas only 12% said they did not enjoy it at all. See table 4 and graph 5 below.

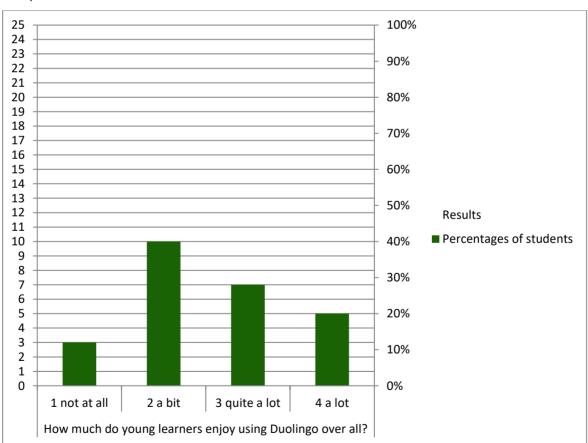




Table 4

Scale	How much do young learners enjoy using Duolingo over all?
1 not at all	3
2 a bit	10
3 quite a lot	7
4 a lot	5
Results in	
percentages	%
1 not at all	12%
2 a bit	40%
3 quite a lot	28%
4 a lot	20%

Graph 5





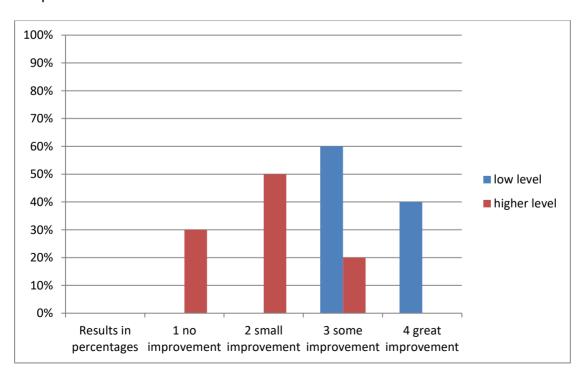


Finally, I divided the students into two groups according to their English level. Low level and higher level of English. There were 15 students grouped in the low level and 10 students in the higher level, and the percentage of low-level students that found Duolingo useful was 100% whereas only 20% found the app useful at some level, 50% found it useful in a small level and 30% did not find the app useful at all. See table 5 and graph 6 below.

Table 5

	Students				
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Landon William & America	low	higher			
	level	level			
Results in percentages		%			
1 no improvement	0%	30%			
2 small improvement	0%	50%			
3 some improvement	60%	20%			
4 great improvement	40%	0%			

Graph 6



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The last three questions in the questionnaire were open questions to see what young

learners had to say about Duolingo. The first open question was "What do you like most

about Duolingo?" And the most repeated answers were that they like it because they

can have fun at the same time as learning English, that the app is free, that there is a

variety of methods, and that you can use it any time anywhere.

The second open question was "What do you like least about Duolingo?" And the most

repeated answers were the low level of English in the app, the oral exercises, the

translation exercises and that the dictation exercises are very fast.

The third open question was "What improvements would you make to Duolingo?" And

the most repeated answers were to add exercises for higher English level students, and

add reading comprehension exercises with longer texts. Also, to improve the vocabulary

part, the dictation part and the translation exercises.

Duolingo is designed for low-level students and the students at Universidad Central del

Ecuador felt that way too. Overall, students with a low level found Duolingo more

effective than students with a high level.

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3.2 Results from teachers' interviews

Two EFL teachers were also interviewed as part of this research in order to compare their opinions with the young learners' opinions about Duolingo. The set of questions that we used in the interview with the English teachers can be seen in the appendix, under the heading "Questions to EFL teachers". The questions and summarised answers are below:

1) Is e-learning helping young learners to learn English? If so How?

They think e-learning definitely helps because it makes the learning process more fun and also because young learners are digital natives, so they use mobile phones, tablets, laptops all the time and it's motivating for them.

- 2) In your opinion why do people prefer Duolingo over other apps?
- They cannot tell what people prefer or if people do prefer Duolingo over any other app unless they have some data.
- 3) In your opinion what are the benefits of Duolingo?

They think that by using this app students can have fun going from one level to another without noticing because students will learn in a gamified way, enjoying the different methods that this app uses.

4) In your opinion what are the drawbacks of Duolingo?

The teachers think that the level that this app offers is not very high, which means that this app does not really take you very far in your knowledge of English. There is not realistic communication going on and the vocabulary is not suitable sometimes. Students can miss having a group of people to talk about the activities.

5) Do you think there is any benefit to using Duolingo in the classroom?

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For this question one teacher said that she would not use Duolingo in the classroom and that she would prefer to use it outside as extra practice for students. However, the other teacher said that if you think your students will like it then yes and try to use it for group activities preferably.

6) Do you think Duolingo could ever replace face-to-face teaching?

They said it could not. Not Duolingo at least, but maybe in the future other methodologies that use technology might.

7) In your opinion what skills are most improved by using Duolingo?

They both agreed that writing, reading and vocabulary are the skills that are most improved.

8) Do you have any other comments about Duolingo as a language learning application?

Duolingo is a fun app, but it does not really help you to learn more than the basic or elementary things. It has some spelling and grammar errors. It also depends on your mother tongue to see what languages are available. There should be teacher training in how to incorporate this platform into the classroom. To sum up, it is a very good app but the learning process ends up being a little mechanical like other apps.

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3.3. **General overview**

Our first research question was: "Do young students feel Duolingo helps them to

improve their English level?" We found out that young learners do feel that Duolingo

helps them to improve their English level with 68% between some improvement and a

great deal of improvement. This was in line with our hypothesis.

Our second research question was: "Which skills do young students think Duolingo

helps them to improve?" We found that young learners feel that Duolingo helps them to

improve their reading and writing skills the most. 60% of respondents rated the

improvement made in reading as some improvement or a great deal of improvement,

while 72% of respondents rated the improvement made in writing as a small

improvement or some improvement. We got stound since we had hypothesised that

young students would believe Duolingo helps them mainly to improve the receptive skill:

listening and reading.

Our third research question was: "Do young low-level students (elementary - pre-

intermediate) view Duolingo as more effective than high level students (intermediate –

advanced)?" Our hypothesis was proved correct as young learners with low English

level did view Duolingo as a more effective digital tool to improve their English level than

young learners with a higher level.

We think that the reason why the students feel their reading skills have been most

improved by the app, is because most of the app's popular methods are related to

reading, at least at word or sentence level (sentence ordering method and matching

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vocabulary methods). However, students felt that the app would be further improved by

including reading comprehension exercises with longer texts.

The skill that students felt was the second most improved was writing. This may be

because there are many exercises aimed at improving vocabulary, which obviously has

an effect on improving writing, although both students and teachers mentioned that the

vocabulary element of the app could be improved.

In terms of speaking students do not feel they are improving, perhaps this is due to the

fact that there is no interaction, and the app is mainly mechanical. Although, Duolingo

does try to work on pronunciation, the oral evaluation method that Duolingo includes is

the least popular of its methods.

Another objective of research was to analyse the different techniques that Duolingo uses

to teach English and to evaluate which methods students most like and find useful, and

what improvements they would suggest. We found six different methods and as part of

the questionnaire students rated each of these methods on a scale of 1-4.

Hence, we could find out which students think is the most effective method that the app

uses. We found out that the method that students found most effective was the sentence

ordering method. 100% of students rated this as quite effective or very effective, while

the oral evaluation method was the least popular with only 16% rating it as quite

effective or very effective.

In short, we believe that the reason that only 16% of students between 17-20 years old

at Universidad Central del Ecuador use Duolingo to learn or improve their English is

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Silvia Elizabeth Morales Moreión because they feel like they are already exposed to a lot of English practice. They have 4

hours of English a week including extracurricular practice where they have to do

different activities such as singing, writing summaries of a documentaries, role plays,

presenting products that they create, etc.

The results show that the benefits of using Duolingo are that students feel it helps them

improve their level of English, mostly in reading, writing and vocabulary. These results

were backed up by the English teachers' opinions who also think the same. The results

also show that improvement was more pronounced in young learners with a low level

(elementary, pre intermediate), rather than students with an intermediate or advanced

level.

Out of the six different Duolingo methods that were analysed, the one that students

found most effective was the sentence ordering method, followed by the matching

vocabulary and meaning method, and matching vocabulary and meaning using pictures

method, and the least effective according to young learners was oral dictation method.

On the one hand, in terms of the drawbacks of Duolingo, young learners and EFL

teacher had shared opinions, such as the low level of the exercises in the app, the lack

of possibilities to improve speaking, and the unsuitability of the vocabulary exercises at

times. On the other hand, the benefits of the app were that it was described as a fun way

to learn English, that you can use it anytime anywhere, that it is free and it has a large

variety of methods.

This study has demonstrated our initial hypotheses that young students believe that

Duolingo helps them to improve their English language. Also, that low level young

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students believe that Duolingo is more effective than higher level students. We were partially correct with the hypothesis that young students believe Duolingo helps them mainly to improve receptive skills (listening and reading) but it is less effective with productive skills (writing and speaking). Because, the results shown that young learners believe that the two skills that are most improved after using Duolingo are reading and writing. Therefore, the aims and objectives of this study have been accomplished.

The recommendations by EFL teachers are that Duolingo should be used in combination with face-to-face tuition, as well as with other technological resources as tools of improvement in the English language learning-teaching process. One EFL teacher interviewed also pointed out that there should be teacher training in how to incorporate this platform into the classroom.

This study shows clear results about what young students and two EFL teachers think about Duolingo. But, one limitation of this study can be the limited number of young students who answered the survey. So, perhaps a suggestion for further researches can be to increase the population of young students who answer the questionnaire. A further research could also extend the research to two or more high schools instead of one.





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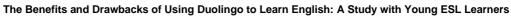
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Appendix









Appendix **Duolingo Questionnaire**

1)	Age:ye	ears old						
	Course (e.g. BAT	2, ESO 2	2):					
	Gender: Male] Fer	male \square					
	Number of langua	ages spol	ken:			-		
1)	Years studied Eng	ılish:	ye	ars				
2)	Do you use Duoli	ngo to lea	arn Englisl	h?				
	Yes 🗌 N	No 🗌						
3)	How much time p	er week o	do you spe	end using	Duolin	go?		
	Less than 1 ho	our	1-2 hour	s 🔲 3	3-4hou	rs	more	than 4 hours
4)	How much has us	sing Duol	ingo impro	oved your	genera	al level of	Englisl	h?
	No improvement	1	2	2	3	4		A great deal of
	improvement							
5)	How much has us	sing Duol	ingo impro	oved your I	readin	g skills in	Englisl	n?
No	improvement	1	2	3	4	A great o	leal of	improvement
6)	How much has us	sing Duol	ingo impro	oved your	writing	skills in E	English	?
No	improvement	1	2	3	4	A great of	deal of	improvement
7)	How much has us	sing Duoli	ingo impro	oved your	speaki	ng skills i	n Engli	sh?
No	improvement	1	2	3	4	A great of	leal of	improvement
8)	How much has us	sing Duol	ingo impro	oved your I	listeni	ng skills ir	n Englis	sh?
No	improvement	1	2	3	4	A great o	leal of	improvement
9)	How much has us	sing Duol	ingo impro	oved your	vocab	u lary in E	nglish?)





No improveme	ent 1	2	3	4			improvement	
10) How much has using Duolingo improved your grammar in English?								
No improveme	ent 1	2	3	4	A great	deal of	improvement	
11) How effect	tive do you fin	d the tra r	nslation :	method th	at Duoling	jo uses	s? E.g:	
Traduce esta oración Sofia and Antonio swim with the elephants. Escribe la traducción en español	Not effective	1	2	3	4	very	/ effective	
12)How effect	ive do you find	d the dict a	ation me	thod that	Duolingo ı	uses?	E.g:	
The minutes and seconds the day	9 /	ctive	1	2	3	4	very effective	
13)How effect	ive do you find	d the oral	evaluati	on metho	d that Dud	olingo ı	uses? E.g:	
Lee la oración en voz	Not effe	ctive	1	2	3	4	very effective	
14)How effect	tive do you fi	nd the n	natching	vocabul	ary and	meani	ng method that	
Duolingo u	ses? E.g:							
	Not effe	ctive	1	2	3	4	very effective	





15)How effective do you find the **matching vocabulary and meaning using pictures** method that Duolingo uses? E.g:



16) How effective do you find the **sentence ordering** method that Duolingo uses? E.g.:



- 17) How much do you enjoy using Duolingo overall?
 - Not at all 1 2 3 4 A lot
- 18) What do you like most about Duolingo?
- 19) What do you like least about Duolingo?
- 20) What improvements would you make to Duolingo?





Questions to E.F.L teachers:

- 1) Is e-learning helping young learners to learn English? If so How?
- 2) In your opinion why do people prefer Duolingo over other apps?
- 3) In your opinion what are the benefits of Duolingo?
- 4) In your opinion what are the drawbacks of Duolingo?
- 5) Do you think there is any benefit to using Duolingo in the classroom?
- 6) Do you think Duolingo could ever replace face to face teaching?
- 7) In your opinion what skills are most improved by using Duolingo?
- 8) Do you have any other comments about Duolingo as a language learning application?





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