LEARNING ELEMENTARY ENGLISH BY USING THE DUOLINGO APP WITH THE SIXTH GRADE STUDENTS AT COLEGIO MUSICAL BRITÁNICO

By:

Eduardo Alfonso Morales

Steven Francisco Reyes

School of Human Sciences

Linguistics and Languages Department

English and French Program

University of Nariño

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Advisor:

Mario Guerrero Rodríguez

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LEARNING ELEMENTARY ENGLISH WITH THE DUOLINGO APP	3
Las ideas y conclusiones aportadas en el siguiente Trabajo de Grado son responsabilidad	l
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Acknowledgments

To my mom who is the most important person in my life.

Steven Reyes

I would like to thank all the people who were involved in this project.

Eduardo Morales

Abstract

In recent years, the use of different technological means implemented in the educational environment has had a positive impact on the process of teaching and learning at different levels of education. Diverse technological tools have been applied in this process and the use of mobile applications is one of the most recently examples of the used of these technological tools (Chambers et al., 2004). This research was conducted in order to determine the effectiveness of the Duolingo application in learning Basic English with sixth grade students at Colegio Musical Británico. The process carried out to fulfill the objective of this research was conducted by a pretest to determine the level of English, the use of the application with the development of activities based on the content of this, a post-test to determine the final level of English and finally a survey. With the development of all this process the research question how effective is the use of the Duolingo App in learning Basic English with students of sixth grade at Colegio Musical Británico? was answered and some conclusions were drawn.

Resumen

Hoy en día, el uso de diferentes medios tecnológicos usados en el medio educativo ha tenido un impacto positivo en el proceso de enseñanza – aprendizaje en los diferentes niveles de educación. Se han usado diferentes instrumentos tecnológicos en este proceso y es el uso de aplicaciones en celulares un ejemplo de los instrumentos más recientemente utilizados (Chambers et al., 2004). Esta investigación fue dirigida con el propósito de conocer la efectividad de la aplicación Duolingo en el aprendizaje del inglés básico con estudiantes de grado sexto del Colegio Musical Británico. El proceso llevado a cabo para cumplir con el objetivo de esta investigación se llevó a cabo por medio de un pre-test para conocer el nivel de inglés de inicio, el uso de la aplicación acompañada con el desarrollo de actividades basadas en el contenido de esta, un post-test y finalmente una encuesta. Con el desarrollo de todo este proceso, la pregunta de investigación planteada; ¿Qué tan efectivo es el uso de la aplicación Duolingo en el aprendizaje de inglés elemental con estudiantes de sexto grado en el Colegio Musical Británico? fue respondida y algunas conclusiones también fueron planteadas.

TABLE OF CONTENTS

Chapter 1: Introduction to the Study	12
Introduction	12
Statement of the Problem	13
Research Question	14
Objectives	14
General Objective.	14
Specific Objectives.	14
Glossary	15
Chapter II: Literature Review	16
What is Computer Assisted Language Learning – CALL?	16
A Brief History of Call.	16
Behavioristic CALL.	17
Communicative CALL.	17
Interactive CALL.	18
Call Methodology.	18
The Use of CALL	19
Computer as Drill and Practice	19
Computer as Tutor.	19
Computer Used for Simulation - Problem Solving	19

Computer as a Game	20
Computer as Tool for Teachers and Learners.	20
Applications of Internet for ELT.	20
The Importance of CALL	20
Learner's Factors.	20
Motivation and Attitudes.	21
Feedback and Progress Record.	21
What are Information and Communication Technologies - ICTs?	21
Technology.	21
Information Communication and Technologies – ICTs.	22
ICTs in Education.	22
ICTs in Language Learning.	24
Technological Devices in ICTs.	24
What is Second Language Acquisition - SLA?	25
Learning vs. Acquisition	28
Teaching and Learning Styles in Language	30
Methods in Language Teaching	30
The Audio-lingual Method.	31
The Direct Method	31
What is a Mobile Application?	32

Application.	
Use of Applications in Education.	33
Benefits of Mobile Applications in Education.	33
Duolingo App	35
The importance of Duolingo App	36
Duolingo Test Center – Certification.	36
Duolingo for Schools – Dashboard	36
Duolingo as an Educational Model	37
Duolingo Platform.	37
Chapter III: Research Design	43
Type of Study	43
Description of the Context	45
Participants	46
Instruments for Data Collection	46
Direct Observation	47
Duolingo App.	48
Pretest and Post-test	49
Surveys - Questionnaires	51
The Researcher's Role.	52
Validation Process of the Research Instruments	53

LEARNING E	LEMENTARY	ENGLISH	WITH THE	DUOLINGO	APP

Chapter IV: Data Analysis	54
Chapter V: Conclusions and Recommendations	65
Conclusions	65
Recommendations	67
Pedagogical Suggestions	68
References	70
Appendix	75

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Chapter I: Introduction to the Study

Introduction

The learning of a second language has become important for some people who want to study abroad or to obtain professional opportunities to get a job. Learners try to improve their learning process to achieve the acquisition of a second language faster and more effectively and successfully by using several techniques or strategies. However, in some cases the use of such techniques and strategies might not be the appropriate and learners might not have successful results in their process of acquiring a second language.

Nowadays, the Information and Communication Technologies – ICTs have created a global networked world in which the increase of computer-based applications, a case in point, Android Operating System Applications (AOS), has created new environments for teachers and learners around the world, in fact, those new technologies are exciting, innovative and challenging and at the same because of its complexity they are confusing and threatening (Angela Chambers et al. 2004). Thereby, the aim of this research comes according to the previous idea, that is, to give guidance on which AOS applications teachers and learners might trust and how those applications can be integrated into the learning of languages, in this case to teach elementary English by using a smartphone application called "Duolingo".

It is important to take into account that there are some laws, decrees and projects which support and regulate the use of technologies in Colombia. For example, the educative plans created by the Ministerio de Educación Nacional (MEN); "Vive Digital" which is based on applying technology during the next four years in schools of Colombia and "COLOMBIA Very Well" that

will seek from the year 2015 to 2025 a bilingual Colombia. Consequently, the "Vive Digital" educative plan intends the country to take a big technological step through the massification of Internet and the development of domestic digital ecosystems.

Also the Information and Communicative technologies-ICT 1341 law established in 2009 by the political constitution of education Colombia determines a general framework in order to promote the development and strengthening of Information Technology and Communication sector and to support research and innovation by seeking competitiveness and technological progress under national and international environment (Burgos & Echeverry, 2012), and COLOMBIA Very well plan continues the strategies implemented by the Educational Colombian Ministry, through the Project for Strengthening Skills Development in Foreign Languages, and the recent enactment of the Law on Bilingualism (Law 1651 of 2013).

Statement of the Problem

In the last years education has been greatly influenced by technology due to the use of this as a tool in the process of teaching and learning, fulfilling the aim of facilitating learning and making of this a striking process changing in some point the traditional tools of education (Schacter, 1999). Technology has been used in different fields of education and one of them is in the learning.

In this field, technology has accomplished the objective of being a tool for facilitating learning or practice of a language where different devices such as computers, video beams, TVs, tablets, cellphones and among others are used in different ways. Some of the previous devices have been studied and some conclusions about the advantages, disadvantages and recommendations are written in different kind of texts but some of them, in general the latest

(cellphones and tablets), are starting to be used in this field in which the applications installed or downloaded are the means for learning.

Given the widespread use of applications installed on cellphones and tablets, this research focused on determining the effectiveness of one application whose main principal objective is language teaching. The application is called Duolingo and offers different activities to learn vocabulary, grammar, pronunciation and writing. Taking into account what this application offers to the users, this research is directed to provide information about how effective learning, in this case, of Basic English by means of the use of Duolingo is.

Taking into account the previous part, the following research question is posed:

Research Question

How effective is the use of the Duolingo App in learning Elementary English with students of sixth grade at Colegio Musical Británico?

Objectives

General Objective.

To use the Duolingo App as an active tool to learn Elementary English with students of sixth grade at Colegio Musical Británico.

Specific Objectives.

To provide students with Duolingo activities to learn some Elementary English.

To determine students' starting level of English by checking the information provided by the pretest.

To analyze students' progress by comparing the pre-test and post-test.

To describe students' likes, dislikes and expectations in the use of the Duolingo app to learn Elementary English.

To propose the use of the Duolingo app activities to learn Elementary English.

Glossary

Application (App)

An application program is a computer program created to perform any activity, task or coordinated function. Applications can work in devices like computers, tablets, smartphones or technological ones that need it to work.

Duolingo

A free language learning and crowd sourced text translation platform that provides different languages to be learned by people around the world.

ESL (English as a Second Language)

This refers to the learning of English for using in a setting where English is the main language.

Learning

The activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something

Technological Device

A machine or unit conformed by a hardware and software who is capable of process, store and providing input and output of information between similar or different technological machines.

Chapter II: Literature Review

In this part the researchers present the literature review divided into 4 parts: What is CALL?, What are ICTs, What is Second Language Acquisition and What is a mobile application? in order to know more about the problematic situation.

What is Computer Assisted Language Learning – CALL?

Levy (1997) defines CALL (Computer Assisted Language Learning) as the search for and study of computer's applications in language teaching and learning. When Levy mentions "computer applications", he also refers to all the different technological devices that work for language learning and teaching.

The application of CALL in learning English is not bound to the new century; a previous definition of this term was given back at the 1983 TESOL convention. The definition given in that convention was short and simple and expressed in the next way: Call is the area of technological and second language teaching and learning. (Chapelle, 2005).

Different authors have given definitions of this term, but all of them express in their definitions similar ideas, concluding that CALL is the teaching, learning and study of languages by the use of technological devices that facilitate and works as a means for their acquisition.

A Brief History of Call.

When computers first appeared, they were not created for educational purposes; the invention of these devices had other objectives and was in the early 70s that computers started to be used with educational purposes. The growing number of research related to the use of computers for linguistic purposes and the creation of suitable language learning conditions were the first intentions of applying computer in language teaching and learning. In the 80s computers

found a way into homes and schools creating a major importance in the development of CALL (Ittelson, 2001).

With the arrival of the 90s, the use of CALL increased due to the popularity of personal computers and the invention of new technological devices which have been also included in language teaching and learning. In recent years the use of computers is not the only way included in CALL; smartphones, tablets and other devices have had a huge impact on the society leaving computers aside.

Behavioristic CALL.

It was formed in the late 60s and used widely in the 70s under the influence of Audio-lingual teaching method. In this stage of CALL, repetitive language drills, referred to as drill-and practice were used. The computer was seen as a mechanical tutor that never allowed students to work at an individual pace, which hindered motivation. Further, it included extensive drills, grammatical explanations and translation at various intervals (Warschauer & Healey, 2004).

Communicative CALL.

Communicative CALL corresponds to cognitive theories which stressed that learning was a process of discovery, expression and development. Under the influence of Communicative Language Teaching proponents of communicative CALL argued that computer based activities should focus more on using forms. Software developed in this period included text reconstruction program and simulations. In communicative CALL, the focus was not so much on what students did with the computer, but rather on what they did with each other while working at the computer (Warschauer, 1996).

Interactive CALL.

By the 1990s communicative CALL began to be criticized and new second language acquisition theories and socio-cognitive views influenced many teachers and lead them to use more social and learner-centered methods. This time, emphasis was put on language use in authentic social contexts. Task-based, project-based and content-based approaches all sought to integrate learners in authentic environments, and also to integrate the various skills of language learning and use. In integrative approaches, students are enabled to use a variety of technological tools as an ongoing process of language learning and use rather than visiting the computer lab once a week basis for isolated exercises (Warschauer, 1996).

Call Methodology.

Computers are not very good at teaching themselves. How effective computers are in the language classroom depends on the way the teacher and students use them. CALL involves the interplay of humans and technology, giving special importance to the human end. The success or failure CALL use is determined by: the choices of how a developer presents language and practice activities, the way the teacher uses the treated program and the way students interact with the program. Thus, the learner, the developer, the evaluator and the classroom teacher have their own role in CALL.

The learner is the person who benefits from the product created by the developer, the developer will aid the teacher and learner to achieve defined objectives, the evaluator analyzes software, describes its operation, passes professional judgment on the quality of the pedagogy and language materials, determines what types of learners and teachers the software might fit and finally, the teacher analyzes the results of the evaluation for a particular teaching situation (Pennington & Stevens, 1992).

The Use of CALL

This section gives a brief overview of how CALL has been used or can be used for the purpose of language learning and teaching. The use of CALL can be divided as follows:

Computer as Drill and Practice, Computer as Tutor, Computer as Simulation / Problem Solving,

Computer as Game, Computer as Tool for ELT teachers and learners, and Applications of

Internet for ELT.

Computer as Drill and Practice.

In this use of CALL, computers are viewed as a tool for saving time with immediate feedback. The learning principles behind Drill and Practice is the Behaviorism Learning Theory and the Audio-lingual approach to language teaching. The main aim of Drill and Practice is to review the content / background knowledge, and to assist learners to master separate language skills.

Computer as Tutor.

The role of the computer as tutor is to present learners the content of the lesson as text graphics, video, animation, or slides, including learning activities, drills and practice. The computer serves as a means for delivering instructional materials.

Computer Used for Simulation - Problem Solving.

Simulations and problem solving is used to foster analysis, critical thinking, discussion and writing activities. The computer is not used much for tutorial purposes. The program is designed to create language interaction through problematic situations, challenging conditions or problems challenging for the learner to solve. Many simulation programs are problem solving games, which are entertaining and educational ("edutainment").

Computer as a Game.

CALL games and simulation games are similar in that both are designed to motivate students to learn through entertainment. However, they are different in certain ways. Simulation games always use simulations (real life situations) in the presentation of a game, while CALL games focus on providing fun, but challenging environment to the learner. Though CALL games have clear learning objectives, they are different from Tutorials and Drill and Practice. The main function of CALL games is not so much to present the language content as tutorials do but to provide entertainment to the learner.

Computer as Tool for Teachers and Learners.

The most common tool used by teachers and learners in CALL is probably word processors. Word Processors are tools for creating documents for making handouts, sheets, desktop publishing, letters, and flyers for language teaching and learning. There is a variety of word processors available, ranging from high quality programs such as *Microsoft Words*.

Applications of Internet for ELT.

Computers can be connected to the internet and can incorporate interactive multimedia: text, graphics, audio, video, and animation. It can be said that the explosive growth of the internet has given new life to interactive media and CALL. It is commonly used for sharing information or research.

The Importance of CALL

In terms of importance, CALL might present the next characteristics:

Learner's Factors.

CALL can be adapted to the learners' abilities and preferences depending on the cognitive and learning styles of the people involved in the process of learning in which the way

of learning (individual or in groups) can be modified as well. Moreover, CALL allows learners to control their own learning process and progress.

Motivation and Attitudes.

Students will often do on a computer what they are reluctant to do in a textbook or paperpencil. Some CALL features such as graphics, sounds, animation, video, and audio are
interesting and motivating for many learners in which they can improve their attitudes towards
learning English. Besides, CALL (internet) provides authentic communication that motivates
students to use language outside language classroom.

Feedback and Progress Record.

In this part, CALL can provide immediate responsiveness and feedback and provides accurate records of the learner's performance and progress.

What are Information and Communication Technologies - ICTs?

Technology.

Burgelman et al., (2012) refer to technology as the theoretical and practical knowledge, skills, and artifacts that can be used to develop products and services as well as their production and delivery systems which benefit the human being in life. Regarding the previous definition, the author refers to technology as material things but also, he stands that technology is a practical knowledge used for an individual. This definition might be completed by Lin (2003), who says that technology is also embodied in people, materials, cognitive and physical processes, facilities, materials and tools. He argues that technology and knowledge are inseparable simply because when a technological product is transferred or diffused, the knowledge upon which its composition is also diffused. The physical entity cannot be put to use without the existence of knowledge base which is inherent and not ancillary.

Information Communication and Technologies – ICTs.

According to the Youth and Information and Communication Technologies (2003), there are two major assumptions that describe the role of ICTs. One assumption is based on the proliferation of these technologies causing fast transformations in all areas of life. The second assumption refers to the ICTs function to unify and standardize culture.

Tim Shortis (2001) refers to ICTs as all the technology used to handle telecommunications by means of different ways such as: broadcasting media, intelligent building management systems, audiovisual processing, transmission systems, network-based control and monitoring functions, each one with distinctions between technologies. Those distinctions go from machine to machine until enabling computer/mediate human to human communication. Just to clearly explain such distinctions, some information and communication technologies which have emerged the last twenty/five years are: MP3 recorder, mini/disk, satellite dish, game console, smart phones, tablets and hundreds of more devices.

Another recent definition sees ICTs as the convergence of several technologies which are used to transmit very diverse data and communication in different types of formats. ICTs include the integration of audiovisual, telephone and computer networks through a common system (The World Bank Group, 2002).

ICTs in Education.

Education has been an important topic in our society. In fact, countries like the United States, China and almost a big part of the developed countries have destined much of tax resources to education. The destination of these tax resources goes to establish reliable information and communication systems to support the schools with the lowest performance and improve teachers and students performance (Wellings & Levine, 2009).

With the big progress that technology has had in recent years, education can be better supported by using technological tools, which are known as powerful pedagogical tools, not just for finding rich sources of information, but actually, they are seen as extensions of human and contexts of social interactions that might bring benefits to the daily acquisition of knowledge (Bransford et al., 2000).

These technologies have brought a series of benefits to people in terms of teaching and learning. Supporting this, Wellings and Levine (2009) talk about how the investment on technological tools, network access, professional development and new personalized curricula can help institutions to improve their educative process in terms of modernization and satisfaction of the needs of learners of the 21st century.

To clearly define some benefits that these technologies have brought in education, The International Society for Technology in Education (2008) says that ICTs support students' achievement given that with the appropriate instruction learners might get positive effects in reading, literacy, mathematics, and science. The ICTs are not only used in a specific field of the sciences but that they might be guided for teaching or learning what the user wants. Also, this society mentions that the use of ICTs increase the access to education when these give solutions to create inclusive learning environments in all the educational levels. Hence, the integration of technology into formal learning might engage learners to create more self-depend work when finding out information by using any technological device which make activities of school more relevant and didactic (America's Digital Schools, 2006).

Also, ICTs support the teaching process in educative environments; these new technological tools help teachers to provide personalized instruction and intervention for all students by means of a device, especially to students who present underperformance. This

situation can increase if students have the opportunity to access the web for searching resources and practicing with virtual communities. ICTs are seen as innovative and useful tools in assessment. In this field, ICTs make tests easier to administer and score, allowing teachers to improve and expand feedback.

Despite the big help that ICTs bring to education, it is important to clarify that having the equipment or knowing the technical challenges is necessary but not sufficient. In most cases, in order to succeed the quantity will always have to exceed the quantity, and it is in this situation where the teacher instruction takes place and is the most important aspect in the teaching and learning with ICTs (Sutherland et al, 2009).

ICTs in Language Learning.

The contemporary world is experiencing a technological age where all kinds of ICTs are playing an important role in terms of people interaction where education and especially language learning and teaching are included (Kaspar, 2000). Studies carried out by Cheung and Harrison (1992) have demonstrated the importance of ICTs in the acquisition of a second language. These studies have found that when there is a good instruction in the use of ICTs into language learning and teaching, the rates of vocabulary acquisition increase, grammatical accuracy improves, higher language grades are achieved and language skills improve as well.

Technological Devices in ICTs.

Computers.

A computer is a technological device that can be programmed to carry out a set of logical and arithmetical operations. Computers are composed by a software and a hardware, the software part refers to the programs that it uses for developing the assigned activities and the hardware part refers to the physical components of it (Burgos & Echeverry, 2012).

Mobile Devices.

Burgos and Echeverry (2012) define mobile devices as micro computers that are light enough to be carried by one person and have enough battery capacity to be able to autonomously operate. The same authors establish that there are two more recognized kinds of mobile devices such as; a) 'Smartphones' which are electronic devices that function as a mobile phone with similar features of a personal computer. It is an element halfway between a classic mobile phone and a Personal Digital Assistant. A feature of almost all smartphones is that they allow the installation of programs to increase data processing and connectivity. Tablets which are devices categorized as technological tools might be described as a hybrid between smartphones and laptops, since this kind of device provides the functionalities that both devices previously mentioned offer.

The devices previously named work by means of operating systems, Operating Systems-OS and Android Operating Systems –AOS are two common ones.

What is Second Language Acquisition - SLA?

Saville-Troike (2006) explains that Second Language Acquisition (SLA) is related to two terms; the study of people who are learning another language to learning aside from their first one as young children, and to the process in which that language is learned. The additional language is called a second language (L2), and also they may actually be the third, fourth, or tenth languages to be acquired.

The language to be learned is also commonly called target language (TL). That refers to any language as the aim or goal of learning. The range of SLA takes three environments. They are: *informal L2 learning* that takes places when a child that does not have English a second language is brought to a country where English is the spoken language and the child start to learn

this language by attending to the school, playing outside with friends and in daily situations. Formal L2 learning occurs in classrooms where the student goes specifically to learn a determined language. Finally, a mixture of formal and informal L2 learning involves a mixture of the settings and circumstances before mentioned. Besides, when the teaching of a L2 takes place, it is commonly guided by a theory; there are different theories that talk about this topic. One of them is the Behaviorist Theory, which is applied to foreign language learning focused in the importance of conditioning and reinforcement through the repetition of correct (and only correct) responses to a controlled stimulus, this means, 'Knowing the meaning' is associated with 'giving the correct response'.

Besides, the *mentalists*, or *rationalists* is another theory that takes place in the second language acquisition. It states that when an individual produces an original sentence of a language, he is actually not repeating something he has learned through imitation given that those sentences may be similar to other sentences in the language, but the actual choice of words and their arrangement is a new and own production done by the individual. (Broughton et al., 1980).

According to Broughton et al. (1980) whether a particular methodology is strictly behaviorist or mentalist, or eclectic, items of language still need to be presented and practiced. For example, presentation consists of introducing each new item of language to the learners in such a way that it can be absorbed efficiently into the corpus of language already mastered.

Because of a variety of reasons, almost all people around the world know more than one language, in which the first language is almost always learned naturally to communicate, and regarding second language learning involves many different conditions and processes, and success is far from certain, this means L2 learning may be at least partly because older learners

no longer have the same natural ability to acquire languages as do young children given that second language learning is influenced by prior knowledge of the first and by many individual and contextual factors (Saville-Troike, 2006).

To give a more understandable explanation about how a second language is acquired, the same authors above postulate some theoretical frameworks which provide the bases for different approaches to the study of SLA. All of those approaches shown next address the basic *what?*, *how?*, and *why?* questions, but they have different foci of interest and attention.

As seen in Table 1, some perspectives, foci, and frameworks in SLA process are shown. The first perspective; *Linguistic* and its frameworks differ in taking an internal or external focus on language. The second perspective *Psychological* and its frameworks differ in whether they focus on languages and the brain, on learning processes, or on individual differences. Finally, the *Social* perspective together with its frameworks differs in placing their emphasis on micro or macro factors in learning. Like the lenses with different color filters used in photographing Mars, these complement one another and all are needed to gain a full spectrum picture of the multidimensional processes involved in SLA. Even so, much remains a mystery, stimulating continued research (Saville-Troike, 2006).

Table 1
SLA Perspectives, Foci, and Frameworks.

Perspective	Focus	Framework
Linguistic		Transformational Generative Grammar
	Internal	Principles and Parameters Model
		Minimalist program
	External	Functionalism

	Languages and the Brain	Neurolinguistics
		Information processing
Psychological	Learning Processes	Processability
1 sychological		Connectionism
	Individual Differences	Humanistic Models
		Variation Theory
	Microsocial	Accommodation Theory
Social		Sociocultural Theory
		Ethnography and Communication
	Microsocial	Acculturation Theory
		Social Psychology

Note. The SLA Perspectives, Foci, and Frameworks are from Saville-Troike, M. (2006) in the book Introducing Second Language Acquisition.

Learning vs. Acquisition

As this research refers to the learning of Basic English and not to acquisition, it is necessary to make a distinction between these two terms. According to Krashen (1998) there are two independent systems of second language performance which are: the acquired system and the learned system that refers to the subconscious process given to a similar process that a child undergoes in the acquisition of the first language. This systems requires a natural environment in which the learner is not concentrated in grammar aspects but in the communicative act. And on the other hand, the learned system refers to a conscious process given as formal instruction in which the important aspect is to learn specific aspects of a language, for example grammar.

In his theory, Krashen (1987) mentions some hypotheses that are important to know for a better understanding between the difference of learning and acquisition. The hypotheses are shown following:

- 1. The *monitor hypothesis* explains the relationship between acquisition and learning and defines the influence that the latter has on the former. The acquisition system is the one that produce the language, while the learning system performs the role of the monitor or the editor. The 'monitor' acts in a planning, editing and correcting function when three specific conditions are met: that is, the second language learner has sufficient time at his/her disposal, he/she focuses on form or thinks about correctness, and he/she knows the rule,
- 2. The *Natural Order* is another term that refers to the fact that some grammatical structures might be acquired earlier than others in the first language and they might be taken into account to teach a second language. However, Krashen (1987) points out that a language program syllabus should not bases on the order found in the studies related to this topic. In fact, Krashen rejects the idea of sequencing when the goal is language acquisition,
- 3. The *Input Hypothesis* this hypothesis refers only to acquisition and not the learning, this means that learner improves and progresses along the natural order when he/she receives second language input that is one step beyond his/her current stage of linguistic competence,
- 4. And the *Affective Filter Hypothesis* in which affective variables plays a facilitative, but non-casual role in second language acquisition. These variables include motivation, self-confidence and anxiety. Krashen (1987) says that a student with high motivation, a good self-image and a low level of anxiety is better equipped for success in second language.

Teaching and Learning Styles in Language

The term teaching and learning styles speaks to the understanding that each student and educator learns or teaches differently, this is seen in different subjects of education, but especially in language teaching and learning the styles have had a complete revolution since the beginning of the study of the acquisition of a language. The learning and teaching styles approach has gone from the methods of grammatical explanation to the communicative methods (Cook, 2008).

With the appearance of the first styles the criticism also appeared. The first styles in the language field like the Academic Style of Language Learning were criticized by the focus on grammar and translation setting aside the development of skills such as listening and speaking. In the search for catering innovative methods, the audio-lingual approach started to appear for bringing new ideas in the teaching of languages with techniques like the learning of dialogues.

Some years later, some more structured styles like the communicative Style of Language Teaching were used. This style is focused in the interaction of students with other people in second language focusing in the development of the language skills given a very low importance to the learning of grammar structures. Another important style is the Task-bases Learning Style of Teaching where the language is learning by means of meaning-based tasks with definite outcomes; in this style the goal is the fluency, accuracy and complexity of the language. It is with the previous described styles and with some other styles not named here that the teaching and learning of languages has evolved (Cook, 2008).

Methods in Language Teaching

This part contains a brief review of two methods that have a closed relation with this research.

The Audio-lingual Method.

The main goal of this method is the teaching of a second language by the comprehension of texts. Teachers taught from books containing short reading passages in the foreign language, preceded by list of vocabulary. Rapid silent reading was the goal, but in practice teachers often resorted to discussing the content of the passage in English. The imitation was one of the principal aspects in this method in which there was only memorization and grammar aspects were not explicated directly (Darian, 1972).

The Direct Method.

Krause (1916) explains that the direct method is ideal when teaching modern languages because some of its contributions are: the direct method let develop the four types of language skills; reading-writing and speaking- listening, instruction is conducted exclusively in the L2, everyday vocabulary and oral skills are taught around questions and answers exchanges in intensive classes, grammar is taught inductively and accuracy is emphasized (self-correction).

Other key aspects of this method are given by Sauveur and Franke (1900) who state that the introduction of new simple elements such as; words, numbers, alphabet characters, sentences or concepts are taught by following steps: (a) to show is important because when pointing to Visual Aid or Gestures (an example; for verbs), teacher is ensuring students clearly understand what this is being taught, (b) to say several times to verbally introduce an element with care and enunciation, (c) to try in order to learners make various attempts to better pronounce new elements, (d) to mold is necessary given that the teacher corrects students if necessary by pointing to mouth to show proper shaping of lips, tongue and relationship to teeth, and (e) to repeat is relevant because students repeat each element at least from 5 to 20 times to better understand, pronounce and memorize.

What is a Mobile Application?

Application.

Ceruzzi (2000) states that an application program is a computer program created to perform any activity, task or coordinated function. Applications can work in devices like computers, tablets, smartphones or technological ones that need it to work. Those applications differ in the operating systems accounting for what they were designed. Applications can manipulate text, numbers, graphics, or a combination of these elements. Some of those applications can focus on a single task, such as design; others, called integrated software can include several applications and work for different purposes.

The term application is not really new, it has been used since a long time ago but in recent years the abbreviation for that term "App" has become popular to refer to applications for mobile devices such as smartphones and tablets. In addition, application software can be seen as horizontal or vertical. Horizontal applications are popular and widespread because they are for general purposes like word processors or databases. Vertical applications are not very recognized because they are designed for a particular type of industry or business.

Between horizontal and vertical software, it can be found many types of software application like: *Application Suit*, it consists in a group of applications that relate functions, features and interfaces and interact each other for a specific common purpose, *Enterprise software* addresses the needs of a company and helps it to accomplish its objective, *Education software* is a type of application designed for helping educators or students to develop the process of research, learning and teaching. The list of types of software application is long but all they have the same objective that is to help people to perform a specific function (Ceruzzi, 2000).

Use of Applications in Education.

Mobile learning through the use of wireless mobile technology allows anyone to access information and learning material from anywhere and at any time. As a result, learners have control of when they want to learn and from which location they want to learn. Also, all people have the right to access learning materials and information to improve their quality of life regardless of where they live, their status, and their culture.

Mobile learning, through the use of mobile technology, will allow learners of the world to access learning materials and information from anywhere and at any time. With mobile learning, learners will be empowered since they can learn whenever and wherever they want. People who are involved in the learning of any kind of knowledge have the possibility to choose a big variety of applications for learning that they want in any field of knowledge because there are mobiles available for business, languages, mathematics, sports, technology, medicine and among others. The use of these applications might be done by a formal or informal way depending on the context that the learners are (Mohamed, 2009).

Benefits of Mobile Applications in Education.

The Benefits from mobile wireless phone applications have been just recognized since few institutions of higher education use them for teaching and learning. Some benefits identified by Oku (2001) include: providing students with freedom of location and time; increasing speed in teaching and learning; enabling one-to-one learning based on individual educational histories or test results; and allowing teachers to keep up the new educational subjects for future education. Even if mobile applications do not have as many capabilities as wireless computers, they provide teachers and students with much better communication opportunities than other

mobile wireless devices. In terms of communication, wireless computers are mostly used for text message communication, but mobile wireless phones can be used for voice communication.

Good communications between students and teachers improve teaching and learning.

Another benefit of mobile wireless phone has been found in a seminar class, a group discussion setting (Jones, Connolly, Gear, & Read, 2002). Students improve their learning processes by using wireless handset that is a type of mobile wireless phone in a group discussion or teamwork. Typical difficulties in a seminar class are a lack of participation by students, the tendency for some students to dominate discussion, and the difficulty in ensuring discussion focus (Anderson, 1997).

Recently, some schools have begun to use mobile wireless phones in teaching and learning environments because mobile wireless phones create more advanced educational environments with even faster response speeds. For example, nowadays, we see people using mobile phones to study on the way to school or work as often as we see someone reading a book on the train. Two examples of mobile wireless phone uses in learning environments are the Campus-Mobile project at the Berlin University (Lehner et al., 2002) and M-Poort at the University of Twente in the Netherlands (Cole, 2001).

In the Campus-Mobile Project, students at Berlin University use mobile wireless phones in order to send and receive SMS through WAP. Then, the university and the future project partners, Berlin Central and Regional Library, customize information based on the location of students and the students' personal profiles. This information that is created from different sources and formats is transmitted to the users' WAP-phone displays. Students are able to get the information they need without any location limitation from the school and library to do research and class work.

Another mobile wireless phone project in learning environment is called, "M-Poort" project at the University of Twente in The Netherlands (Cole, 2001). In this project, the university tried to make its current web-based curriculums available to WAP-enabled mobile phone. With its current web based e-learning courses, students are able to take courses, pick up and turn in their homework assignments from their own computers and communicate with other students and professors online. Now, students are able to do all that and more through their mobile wireless phones. Such mobile learning (m-learning) will provide no limitation on location and time efficiency for those students who want to take some courses from a long distance. In many cases, mobile wireless phones in the learning environment are still under development. In the near future, m-learning will be a common method in education.

Duolingo App

The application used in this study is Duolingo, an application of Play Store which works with Android mobile operating system (AOS). This application is free language learning and crowd sourced text translation platform that provides different languages to be learned by people around the world. Duolingo was created by the professor Luis Von Ahn and his graduate student Severrin Hacker in Pittsburg. The operation of this application started on 30 november 2011 in a private way and then it was launched for the general public.

Buttner (2015) describes Duolingo as a free language site which offers a course in which students can work whenever and wherever they want. When using this App learners complete modules and engage with visual, audio, and translation activities. Also, they are provided with a series of words to choose from, with grammatical explanations and definitions as needed. Also, with Duolingo, apprentices can earn "Lingots" each time they complete a skill set, compete and follow other users, then they can use the Lingots for shopping a new outfit for the cute little Owl

instructor. Aditionally, students can do real-world practice by helping to translate texts in the site. Many languages can be developed such as English, Spanish, French, German, Italian, Portuguese, and others. In an early version learners used the app without internet connection but at the moment it is necessary for logging.

The importance of Duolingo App.

There are some charactiristics that bring importance to this application in the process of language learning. One of the characteristics is that learners can go through informal or formal learning by means of Duolingo app. This app can be used for formal or informal education depending on the context where it is used. If learners want to practice to learn, to remember or to improve their knowledge they have only to download the app and they will start to accomplish their objective. On the other hand, if learners are involved a educative forma setting they will receive instructions and the use of it might support what they have done in classes. In addition, the access to connectivity is another important aspect, learners can choose the location that they want and at the time that they want. It is to say, learners do not have to meet a schedule. Besides, Duolingo offers big tools for the learner and teacher presented next:

Duolingo Test Center – Certification.

Duolingo was launched on 22 July 2014 the Duolingo Test Center that is an online language certification platform that can be taken by Wed, iOS or Android, where test are proctored through microphone and camera. The test takes twenty minutes to be finished and cost 20USD graded in a scale between 0 and 10.

Duolingo for Schools – Dashboard.

Duolingo has been used in public schools as a pilot project run by the government from Costa Rica and Guatemala. Given the importance of this project Duolingo provided a Dashboard

that can display the student's progress. The dashboard enables teachers to understand individual student's weakness and strength at each skill, and might help them to come up with best ways to teach (Grego, 2012).

Duolingo as an Educational Model.

This application provides extensive written lessons and dictations included in different number of lessons in order to get experience in the second language and learn grammar, pronunciation and vocabulary aspects. The User gains "Experience Points" (EP) as they learn a language, such as when they complete a lesson. The application considers that the users learn a skill when they complete a lesson. The user gains one point for each good answer and lose one point for each mistake, a lesson is completed when the user reach ten points. This application also includes a timed practice feature, in these lessons the users are given thirty seconds and twenty questions and awarded a skill point and seven or ten additional seconds for each correct answer.

Duolingo Platform.

Although national and international technology standards are being applied to ensure that new teachers are prepared to teach with technologies, it is relevant that all educators be familiar with and appropriately use today's technologies. Hence, educators need to know the physical and virtual composition of different technologies, and to realize the benefits when using them for their own needs, as well as for their student's needs (Ivers, 2003).

According to the previous idea, it is important to explain some details about what Duolingo's users find on its platform. Figure 1. shows Duolingo's interface in which they appear *Menu Bar* that has homepage, learnt words, activities, discussion stream and others, *Online Shop Items* where users can buy widgets to embellish their profile, *Module Selector Area* where users can select the module to be studied, *Notifications* or messages for the user, *Lingots* which are

awards won because of successfully passing activities, *Day Streak* or user's frequency, *User Name*, *Fluency Indicator* that shows user's progress, and *Daily Goal* or scheduled activity for a specific day.

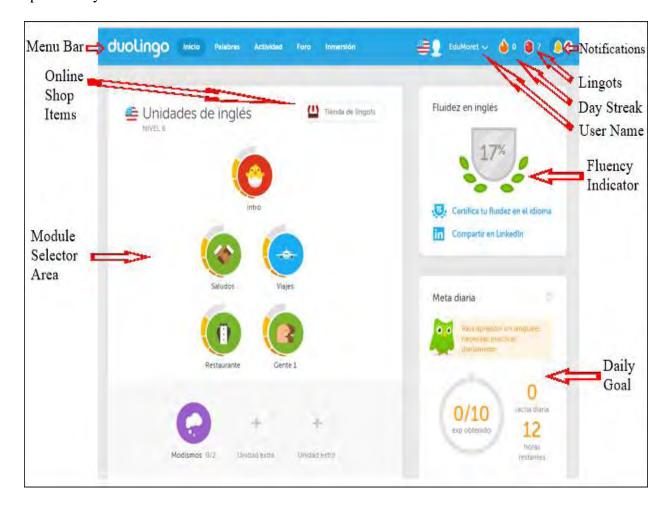


Figure 1. Screenshot from Duolingo Homepage Interface Parts.

The app home screen displays a tree (Figure 2.). The one to three circles in each row of the tree represent units that must be usefully completed to move to the next row of activities. Units tend to be semantically or grammatically themed, with content-oriented themes such as animals or grammatically focused themes such as possessives. Completion of all 68 units is equated with a high-intermediate, or B2 on the CEFR, level of proliciency according to Duolingo's founder (Vesselinov, 2014).



Figure 2. Duolingo's Module Selector Area where users can select the module to be studied.

Each unit contains a linear sequence of lessons, each made up of a set of chronologically ordered activities facilitated in the L1. Despite Duolingo claiming a variety of speaking, listening, translation and multiple choice activities, a big part of these activities involves translation of a sentence or phrase usually through selection of a word bank as seen in figure 3. Other exercises include verbal repetition of a spoken or written L2 structure and dictation, which allows for multispeed audio replay. All exercises offer immediate color and sound coded textual animated feedback on correctness, and items answered incorrectly may be repeated later in the lesson. Each lesson gives a number of hearts, usually three to four that are eliminated for each incorrect answer. When no hearts remain, incorrect responses result in restarting the lesson. Progress through a lesson is visually tracked by way of an incremental progress bar at the top of the screen.

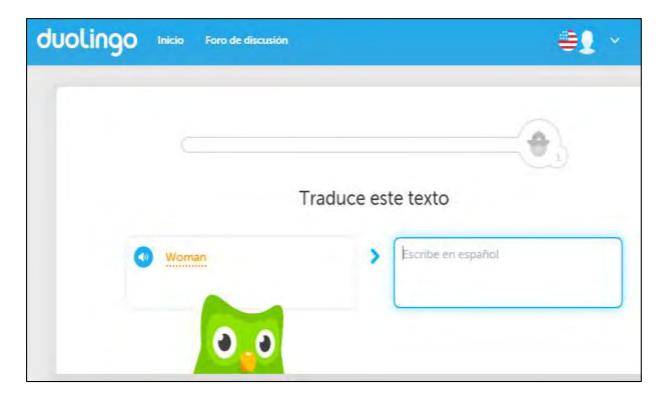


Figure 3. Activity focused on translation of a sentence or phrase usually through selection of a word bank.

Correct responses and completed lessons, units, and levels earn language experience points used to track progress. In addition, accomplishments, such as completion of a unit, are rewarded with lingots, Duolingo's own currency which can be used at the lingots shop to buy extra hearts or outfits for the Duolingo mascot (see Figure 4.). Users can track their progress on a line graph found under the profile link at the top of the screen. The profile link also allows users to change their goals or settings, see the weekly leaderboard of friends' progress, or add additional friends.



Figure 4: Shop to buy extra hearts, bonus or owl's suits.

Taking into account technological considerations, such as design, sound and visual characteristics, Duolingo capitalizes on some features while also showing room for improvement. Duolingo has taken obvious care to simplify the screen layout for mobile devices, with simple navigation. Colors are used effectively to show language learners' progress in a visual way by coloring accessible unit icons and presenting currently inaccessible units in gray scale (see Figure 1. above).



Figure 5. Audio recording interface where users can practice oral production.

The sound quality is clear in general, though it occasionally sounds computer generated and sometimes experiences lag or fails to play in some audio-augmented touch-based activities. The program takes advantage of the microphone for users' spoken translations and seems adept at accepting less than perfect learner pronunciation. Microphone lag is rare, and the interface shows a visualization of recorded volume for immediate user confirmation (see Figure 5.). One strength of the speaking interface is the button that allows users to skip audio-based activities for a specified period of time or turn them off entirely. This can be a valuable option when using the app in public and desiring muted audio.

Chapter III: Research Design

This chapter deals with a fundamental description of the research design in which it is possible to find some important issues such as; type of study, description of the context, instruments for data collection, among other aspects.

Type of Study

For the development of this work, a qualitative approach was used. In general terms, qualitative approach refers to scientific research that consists of an investigation which seeks answers to questions, applies a predefined set of procedures to answer questions, collects evidence, produces findings not determined in advanced, and produces applicable discoveries beyond the boundaries of study. Qualitative research is also effective when investigators want to obtain culturally specific information about values, opinions, behaviors, and social context of particular populations (Maxwell, 2013).

Qualitative approach fit in this investigation because it allowed to find some complex textual descriptions of how learners experienced a particular issue, in this case with the use of the Duolingo application. Flick (2009) explains that those descriptions deal with information about the human being in terms of behavior, beliefs, opinions, emotions, and relationships of individuals.

Maxwell (2013) states that qualitative approach has some methods. Between the three most common are: (a) *Participant Observation* that is appropriate for collecting data on naturally occurring behaviors in their usual contexts, (b) *In-Depth Interviews* which are optimal for collecting data on individuals' personal histories, perspectives, and experiences, and (c) *Focus Groups* are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups represented.

In order to answer the research question, an Action Research type was used. Detert & Schroeder (2001) say that an action research is a process of systematic research that seeks to improve facts that are not working well or issues that affect the lives of a group of people.

Pearson & Brown (2002) express that it involves systematic observations and data collection which might be used by the researcher in reflection, decision-making and the development of more effective classroom strategies.

Burns (2010) explains that action research is a valuable way to extend and improve teaching skills in order to better understand teachers themselves, classrooms and students.

The same author above states that an action research is related to "reflective practice" and "teachers as researchers". This process takes into account a self-reflective, critical, and systematic approach to explore different teaching contexts. Hence, teachers role as investigators or explorers of their personal teaching context, and they become one of the participants at the same time.

The purpose of action research focuses on intervening carefully in a problematic situation to create better changes and improvements in practice based on prior information or data collected systematically.

In this project, the action research study had the following purposes:

- 1. Check the use of a mobile and PC application called Duolingo to learn basic English,
- 2. Allow see and identify changes and transformations in the student's Basic English learning,
- 3. Apply a contemporary way in which technology plays an important role when using a certain application to learn English, in this case with the use of Duolingo,

In education, action research can be defined as the process of research a school problem or situation in order to understand and provide new knowledge and understanding about how to improve educative practices or solve significant problems in classrooms (Hensen, 1996) in which it uses a systematic process and provides benefits for those interested in the learning or teaching of a specific field in education. (Dinkelman, 1997).

Consequently, this work developed the phases that characterizes and action research that are; first the selection of an area or focus, followed by a study of professional literature that is going to bring the necessary information for defining the research questions. When the research questions are established, the collection, organization and interpretation of data take place. Once all of this is done, the results are presented.

Description of the Context

This study was carried out with sixth graders at the Colegio Musical Británico. This high school is located in the east from San Juan de Pasto. This setting is a private school and offers elementary and high school studies and it has appropriate facilities which meet international standards regarding education. It is important to mention that this school has been open since 1981, focused on the learning of universal languages music and English.

The mission of this institution is to educate integral learners with especially focuses on their academic and ethical capacities to make them active in the progress of society, family and their own harmonious human development.

Its vision states that this high school will be recognized as a leader institution in education regarding academic, bilingual and musical training, taking into account values and leadership in its members who take advantage of advances in science, culture and technology to improve human development.

Besides, the Colegio Musical Británico adopted a Communicative approach, in which the most important objective is that learners give higher importance to the communicative skills instead of grammar. Teachers work with guides in which the aim is to bring tools for the learners to produce their own language by means of different communicative task.

This school provides the learner with some technological resources like: speakers, smart TVs, computers, internet and the guidance of the teacher for the correct use of these in the learning of English.

Participants

This study was carried out with 15 students from sixth grade at the Colegio Musical Británico. The average age of the group was 11 and 12 years old both genders 5 females and 10 males. They all belonged to a high social class.

The participants were selected taking into account that the lesson plan of sixth grade of the school had the objective of teaching the same or similar topics that this research wanted to work.

Before starting the work in the aforementioned school we talked to the school principal and he was told the reasons for undertaking this research project in this high school. He also signed a consent form in which, we explained what the research was about, the time to develop, the research and the population. Then, the students learned about the activities and their parents signed a letter of acceptance. For ethical issues we decided not to mention names or publish videos or pictures about the people or the institution involved in the research.

Instruments for Data Collection

To carry out this study the researchers considered relevant the following instruments to collect the data.

Direct Observation.

Direct observation is a contemporary technique that records occurrences which are spontaneous, externally observable thanks to the different facets of behavior (Spielberg, 2004).

The purpose of direct observation is to determine the extent to which a behavior is present. The observer functions like a camera o recording device to provide a record of the occurrence of the behavior in question (Ary, Cheser & Sorensen, 2009).

Spielberg (2004) points out that "direct observation refers to the observation of behavior that is explicitly defined under predetermined settings" (p 284). This approach is also related to observe behavior under environments which occur naturally, its aims are to describe such performances of interest, select specific recording techniques, methods, and strategies. Five characteristics are found in direct observation; (a) The purpose is to record specific behaviors, (b) The behaviors observed are defined a priori to work in a detailed way, (c) Standardized procedures are applied to conduct observations, (d) Times and settings are carefully selected and specified for observation, and (e) when scoring and summarizing the data it is necessary to standardize in order to not vary from one observer to another.

Some steps of direct observation defined by Scott & Aman (1999) were used in this study to collect data:

- 1. Continuous records on the Dashboard tool were involved in real-time during all the process (from onset to termination) concerning the behavioral categories needed when applying Duolingo App,
- 2. Response duration treated with the period of time applied when using Duolingo and then its Dashboard which showed different kinds of behaviors in terms of frequency of work that varied according to each learner, and

3. Frequency counts entailed the sequence and total of performances joined to prior categories during a usual interval, for example, it was necessary some classes to identify strengths and weaknesses in English and then those were compared to prior results got in the pretest to know how to work in the next class and so on, 4. Interval recordings were applied from moderate to high frequency (expected), it required a timing control in which pupils took some minutes for developing each Duolingo module, in each English session the students did 3 modules (20 minutes each) and they were asked to do extra work outside class to improve as said before frequency when using Duolingo, and finally 5. Momentary time sampling was used to brief observations to advice and give feedback when there were some doubts on how to do some activities or how to use this application.

Duolingo App.

Duolingo is an application of Play Store which works with Android mobile operating system (AOS). This application is free language learning and crowd sourced text translation platform that provides different languages (English, Spanish, French, German, Italian, Portuguese, and others.) to be learned by people around the world. Duolingo was created by the professor Luis Von Ahn and his graduate student Severrin Hacker in Pittsburg. The operation of this application started on 30 november 2011 in a private way and then it was launched for the general public.

Buttner (2015) describes Duolingo as a free language site which offers a course way in which students can work whenever and wherever they want. In the application of this study, when using this App, learners completed modules and engaged with visual, audio, and translation activities. Also, they were provided with series of words to choose from, with grammatical explanations and definitions as needed. Also, with Duolingo, apprentices received

"Lingots" each time they completed a skill set, and when they competed and followed other users, they could use some "Lingots" for shopping, a case in point; "a new outfit for the cute little Owl instructor". Aditionally, students did real-world practice by helping to translate texts in that site.

Given the importance of Duolingo, it created a dashboard in which the researchers could follow individual student's weakness and strength, it brought a statistical following of students' progress (Grego, 2012). This dashboard was useful for analyzing information related to the learning of Basic English by the students of sixth grade in this research (see figure 2.).

Pretest and Post-test.

A Pretest and a Post-test were applied in this research study to compare results and to analyze changes. Researchers considered that it is important to explain next a little bit about what tests are.

In simple words Brown (2004) defines a test a method to measure the ability, knowledge, or performance of a person in a specific and given domain. It is also seen as an instrument, set of techniques, procedures or items which need performance on the test takers.

The success of a test leads on how to use certain principles. To explore those assessment language principles it is important to take into account existing, previously published, or created tests. According to the previous idea researchers in this paper took into account some criteria to design both pretest and post-test. For example, some standards were taken from Brown (2003) who states that the effectiveness of a test focus on five cardinal criteria for testing a test; *Practicality, Reliability, Validity, Authenticity*, and *Washback*.

In this study, when designing the pretest and the post-test it was important to determine their purposes because this helped choose of the right kind of test and to define its specific objectives. Next Brown, (2004) briefly shows some features of different five tests:

- 1. Aptitude Tests measure the capacity or general ability to learn any subject,
- 2. *Proficiency Tests* deal with the global competence. In a second language this tests overall ability and usually consists of standardized multiple-choice items focus on grammar, vocabulary, reading and aural comprehension,
 - 3. Placement Tests put a learner into a specific level or section,
- 4. *Diagnostic Tests* diagnose specified aspects, for example in a grammar test they diagnose the syntax features of a language, and
- 5. Achievement Tests focus on classroom lessons, units, or sometimes a total curriculum. An achievement test should be determined by the objectives in a lesson, unit, or course which is being assessed, the importance it has on each objective, the tasks applied in classroom in terms of time like practicality issues which regard to frame and turnaround time, and the extent that contains the test structure.

The Pre-test and Post-test were some of the instruments that this research used (see Appendix, Annex A and H). Those tests were designed as Diagnostic Tests because students had to answer 128 questions. Some of those specific points focused on simple grammar and others on simple listening comprehension, and so on (see Table 2).

The pre-test was administrated before the treatment of the analysis; it was applied to determine the knowledge of some Basic English skills that students have. At the end of the research a post-test was applied in order to contrast the results of these two tests for data analysis.

Surveys - Questionnaires.

According to Kvale (1996) the purpose of surveys is to obtain qualitative real data and when applying a survey researchers collect information in an organized and methodical way about characteristics of interest from some or all individuals using some clear concepts, methods and procedures, and they compile such information into a useful summary form, they are an important instrument for finding information about what is needed to know.

Scheuren (2004) stablishes the word "survey" is usually used to describe a method for gathering information from a sample that is usually just a fraction of the population being studied. In fact, the same author poses that many kinds of surveys are found and generally they are categorized into two ways:

In terms of instrumentation questionnaires and interviews can be chosen. To better explain a questionnaire is a paper and pencil format that usually has closed-ended questions followed by a series of response options and others that have open-ended questions in order to deeply explore the answers of respondents. Questionnaires can be applied in different survey methods. The self-administered method is usually used and applied by researchers or by some technological devices (as online web surveys), the group administered like census conducted by governments, and the household drop-off. On the other hand, an interview is more personal and probing.

This survey format has the freedom to ask follow-up questions and it is necessary the interaction of two persons, the researcher as the interviewer and the respondent as the interviewee. This instrument also applies some survey methods such as the face-to-face interview, the phone interview, and thanks to technology the online interview.

According to the span of involved time, cross-sectional and longitudinal surveys are comprised. The first, cross-sectional survey is used to collect information from a sample at a single period in time; this means this type of survey applies questionnaires asking about particular topics at one point of time and sometimes it is used to compare two variables. The second, longitudinal survey gathers data over a period of time, in other words this goes from one point in time up to another. Its main purpose deals with examining and analyzing the changes in the information collected.

In this study a cross-sectional questionnaire was used to accomplish some purposes (see Appendix, Annex I). All the questions were closed-ended followed by some options to be answered. In terms of gathering qualitative and quantitative data test-takers were asked how they felt with the use of the devices such as smartphones, computers and tablets when learning English, and know if they had a positive perception about learning vocabulary, grammar, spelling and developing of the listening by using the Duolingo app. Finally, it is correct to say that it was a cross sectional format because this questionnaire was applied only one time; at the end of the intervention.

The Researcher's Role.

The teachers in this work were the researchers, they work with the students during the peirod of time that this research took. The researchers' role was that of an observer and at the same time as a participant. Barnard et al. (2000) point out that in participant observations the observer is participating in ongoing activities and is recording all obsevations as well. A participant-observer goes beyond naturalistic observation because he is "one more player" in the action.

According to above, the researchers were observing all the attitudes, thoughts, and reflections of students when using the Duolingo app, and they also participated during the intervention with different worksheets (see Appendix, Annexes B to G).

This study always needed the support of the researchers during the application of the pretest, the intervention, the post-test, and the questionnaire in order to clearly explain what all the activities were about and how learners had to use them.

Validation Process of the Research Instruments.

The process to validate the instruments in the research study was done in different ways. We submitted versions of the instruments to peer-review with the advisor and judges who accepted to support this research. To our thesis, they gave us feedback and suggestions to correct and change some inconsistences in the use of instruments, methodology, references, among others.

Some aspects were taken into consideration to apply this research. One dealt with the authorization of the school principal, and the consent of pupils and their parents to carry out this investigacion at the institution, and a second one was related to the identity of each individual who was involved in this study, for example the number and names of learners were necessary to select a sample in order to conduct quetionnaries, worksheets and tests.

Chapter IV: Data Analysis

In the next chapter the data analysis is presented based on the instruments exposed and explained in the previous chapter.

This study followed a step-by-step process in which a pre-test, a post-test and six different worksheets to support the day by day activities with Duolingo and a questionnaire. Hence this research began with the application of one test: the pre-test. It is important to clarify that this test and the following one (post-test) were designed taking into account the criteria of some authors who have written about this topic.

Brown (2004) defines a test as a method to measure the ability, knowledge, or performance of a person in a specific and given domain and those tests are created under the next criteria: (a) *Practicalty;* easy and not slow, (b) *Reliability;* consistent and dependable, (c) *Validity;* effective, appropriate, meaningful, and useful regarding the purpose of assessment (Gronlund, 1998), and (d) *Authenticaly;* natural, contextualized, and meaningful. In this context, the pre-test was administrated to determine the knowledge of some basis English skills that students had before starting to apply the classes in which Duolingo took place. After the classes were done a post-test created under the same criteria of the pre-test, a post-test was applied with the aim of contrasting the obtained results. Consequently, the pre-test and post-test were made up of 124 questions categorized as follow:

Each test was separated into modules which have different items, for instance, module 1 is about greetings and it has 1 item in which there are 7 points to be developed: module 2 is about verb to be and has 3 items which contains 15 points; module 3 is about vocabulary and has 9 items which have 76 points and finally the module 4 that is about simple present and contains 3 items in which 26 points are found. Thus, both pre-test and post-test have 4

modules, 16 items, and 124 points in total as it is shown in table 2 (see Appendix, Annex A).

Table 2

Pre-test and Post-test Modules, Items, and Points.

	Amount of Points on
-test and Post-test Content	
	Each Item
dule 1: GREETINGS	
1. Some Greetings in English.	7
al	7
dule 2: VERB TO BE	
n 2. People.	4
n 3. Nationalities.	5
1 4. Be translation.	6
al	15
dule 3: VOCABULARY	
n 5. Travel.	10
n 6. Restaurant.	10
7. Family members.	9
n 8. Clothes.	14
n 9. Classroom.	9
n 10. Weekdays.	5
11. In the work.	5
n 12. Animals.	8
n 13. Possessive Adjectives.	6
al	76

Module 4: SIMPLE PRESENT.	
Item 14. Common verbs.	10
Item 15. Common verbs 2.	8
Item 16. Verbs with Third person.	8
Total	26
Total Points	124

Note. The pre-test and post-test present 4 modules that are divided into 16 items in which 124 points are posed. Left column shows the several items divided into different modules, and right column shows the total possible points on each module and overall test as well.

As it was explained before, different activities such as tests, surveys, and worksheets were applied in order to achieve the main aim of this study which is to know how effective the use of Duolingo is in the learning of Basic English.

The first step in this study was to apply a pre-test in order to know the knowledge of English and it was based on activities of Duolingo. This activity was developed with 15 students of sixth grade at "Colegio Musical Britanico", they had to answer 124 points divided into 4 modules and these into 16 items. The activity took one class session (1 hour). After checking each of the 15 pre-tests the results given are the next:

The total average of correct points of participants was 62 points out of 124 points, in other words, students answer the half of the pre-test based on the content of what Duolingo has correctly as it is shown in figure 6.

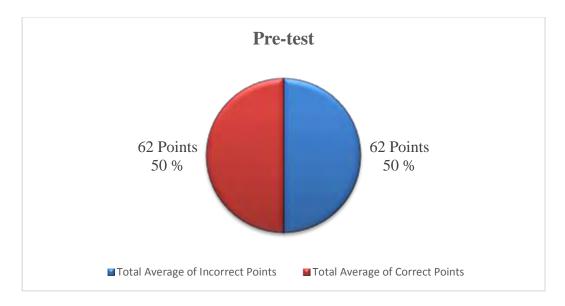


Figure 6. The red color represents the total average of correct points of the 15 test-takers after taking the pre-test.

The second step was giving some English classes by using Duolingo app as an instrument. It was necessary 11 sessions of one hour each one. Thus, the eleven class sessions were used to work with Duolingo; the modules were an introduction, greetings, travel, restaurant, people, clothes, school, business, animals, friends, and present simple.

Besides, to support these activities the students worked on some worksheets which had activities focus on each module of Duolingo. For example, worksheet no.1 was about greetings and verb to be (see Appendix, Annex B.), worksheet no. 2 was based on vocabulary, travel and restaurant (see Appendix, Annex C.), worksheet no. 3 contained activities about vocabulary, people and clothes (see Appendix, Annex D.), worksheet no. 4 had activities about vocabulary, work, school, and plurals (see Appendix, Annex E.), worksheet no. 5 about vocabulary, animals and friends (see Appendix, Annex F.), and worksheet no. 6 was related to simple present (see Appendix, Annex G.).

It is important to say that all the activities developed with Duolingo were recorded in its Dashboard which showed all the modules done step by step in each class. Grego (2012) sets out

that the dashboard enables teachers to understand individual student's weakness and strength at each skill, and might help them to come up with best ways to teach. In fact, figure 7. displays the name of some participants of this study. The group of sixth graders from Colegio Musical Britanico was created by one of the researchers, with this profile it was possible to see the modules the students did inside and outside the class.

This dashboard offered some tools which helped to describe some part of this study. The information collected was sent to the user's mail weekly with the development of each learner.

For example, one tool was the *course content* that gave information about list of words which were required to develop each unit. Another, the *activity detail* tool also was important to know the number of active days, worked units, the rising of experience, and the frequency of use of Duolingo. The course progress was one more tool that allowed knowing the completed modules which appeared in a green icon.



Figure 7. The Duolingo Dashboard was an important tool because researchers could follow day by day the progress of each student from the sixth grade group.

The next stage was the application of the post-test in order to know if there was some kind of improvement after the use of the Duolingo app during a period of 11 classes. In this, the same 15 students took the post-test and as the pre-test they had to answer 124 points divided into 4 modules, and these into 16 items (see Appendix, Annex H.).

After developing the post-test, the total average of correct answers by participants was 90 points out of 124.

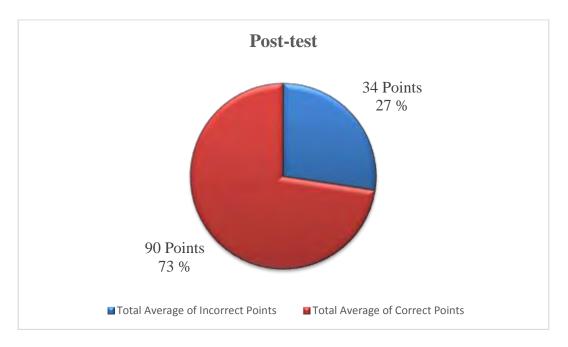


Figure 8. The red color represents the total average of correct points of the 15 test-takers after taking the post-test.

Considering the results of both tests some changes were perceived, the results showed that there was an increase in the score of the post-test, in fact, the average of correct points on each item in the post-test was higher than the pre-test.

To give a more general understanding about the changes observed in the two tests, the total average of correct points is presented in Figure 8. which exposes the total average of correct points of both the pre-test and post-test. It is perceived a difference of scores in the two bars. For example, the orange bar which is related to the pre-test has 62 total points, in the other hand, the

green bar associate to the post-test shows 90 total points out of 124. Hence, 28 points up is the improvement from the students after taking the post-test.

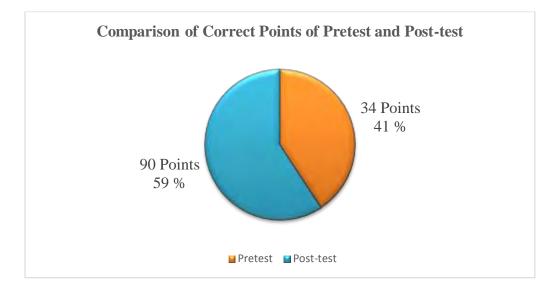


Figure 9. Comparison between the pre-test and post-test regarding the total average of correct points. The orange bar represents the pre-test and green bar the post-test.

After the two tests were applied to the students, learners applied a questionnaire which wanted to measure the compliance of students and the frequency of the use of the Duolingo app; this questionnaire is divided in two sections, the first one (section A) in which questions related to the compliance on Duolingo are done and the second section (section B) in which questions related to the time of use of Duolingo are done. The qualitative method tends to focus on different aspects; (a) on how a person or groups of people can have or give different ways of looking at reality, (b) by taking into account complexity when incorporating real-world contexts, (c) when studying behavior in natural settings, that is, no variable manipulation, and (d) by focusing on data which cannot be adequately expressed with numbers (Alison & Gunderson, 2000). Hence, the reason why researchers decided to use this method was because they wanted to describe learners' point of view about the use of Duolingo.

In table 3, it is shown the section A of the survey in which ten questions are asked about the compliance on Duolingo, for example, details such us vocabulary, grammar, pronunciation, frequency, practice, among others. In this part students had to answer yes or no according to what each of them thought about Duolingo (see appendix, annex I.). Hence, the results of this section are following shown:

Table 3

Questions about the Compliance on Duolingo.

Section A: Read the questions and choose "YES" or "NO" according what you think about Duolingo.

No.	Question	YES	NO
_	Do you think that English classes are more interesting by using		
1			
	Duolingo?		
2	Do you think that it is easier to learn English by Using Duolingo?		
	Do you think that Dualings activities are more interactive than traditional		
2	Do you think that Duolingo activities are more interactive than traditional		
3	English activities?		
	English activities:		
4	Were you comfortable using Duolingo in the English class?		
•	were you connormale using Duomigo in the English class.		
5	Did you practice your English by using Duolingo outside class?		
	2 to you processe your English by using 2 wornings outstate cross.		
6	Did you learn new English vocabulary with the using of Duolingo?		
7	Did you learn grammar aspects with Duolingo?		
8	Did you learn how to correctly pronounce any English words?		
9	Did you learn how to correctly write any English words?		
10	Will you continue using Duolingo to learn English in next opportunities?		

Note. This section of the questionnaire is related to the compliance of learners when using the Duolingo app. There are 10 questions that tackle different aspects of compliance when using the App.

Figure 10. presents the number of yes/no responses about the conformity with the use of Duolingo in English classes at school. It is perceived that almost all the questions (shown in table 3) were answered in a positive way by the 15 students.

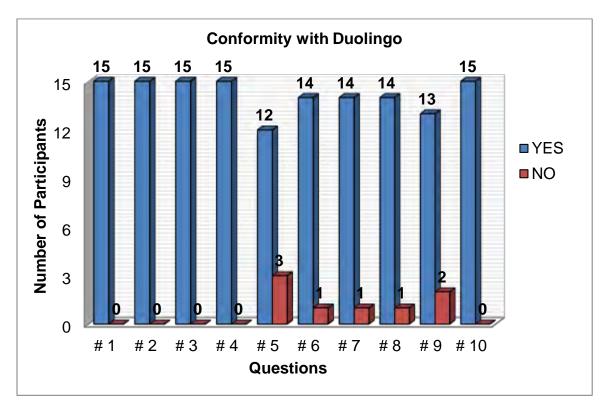


Figure 10. Conformity with the use of Duolingo in English classes. The two colored columns represent the Yes/No options.

The section B of the survey shows the frequency of daily use of Duolingo inside and outside class. The possible options given here are five; less than an hour, one hour, two hours, three hours, and more than three hours and the students were asked to mark an ecks (X) depending on each particular case as seen in table 6 (see Appendix, Annex I.).

Table 4

Options about frequency of daily use of Duolingo.

Section B: Mark with an (X) the option that shows the time you worked on Duolingo.

Number of hours per day.						
Less than an hour	One hour	Two hours	Three hours	More than three hours		

Note. This section of the questionnaire deals with the frequency of usage by the students of the Duolingo app. Each column poses the amount of hours in a day.

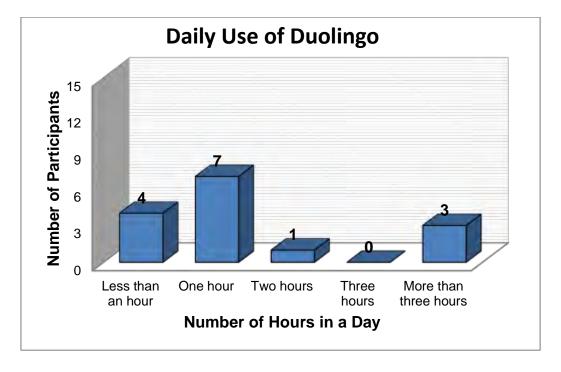


Figure 11. The daily use of the Duolingo app per day. Each blue column represents the frequency of use on The Duolingo Application.

The use given to the application in a day was different among the learners who were involved in the research. Four of the participants answered they practiced Duolingo less than an

hour a day, other seven said it was one hour, only one responded two hours, while three of them practiced more than three hours per day as seen in figure 6.

After all this process of analysis and interpretation of data, it is relevant to say:

The post-test showed positive results, there were better results in this one which might be a consequence of the use of the Duolingo app during a period of time, in number the improvement of the implementation of this instrument in classes was: 37, 2 %. In general, all the students improve accuracy and nobody was under the average.

In the questionnaire good results were obtained as well. Regarding the age and the likes of learners, it is evident that they prefer innovative, interesting and no conventional ways to learn Basic English. What concerns to the use of the application learners employed the Duolingo app inside and outside the classroom to practice or acquire new knowledge related to Basic English.

Finally, to conclude with this chapter it is extremely important to say that the research question posed in this work was: *How Effective Is the Use of the Duolingo App in Learning Elementary English with Students of Sixth Grade at Colegio Musical Británico?*

Regarding the previous data collected and the analysis of it, this research can conclude that the use of Duolingo App might be considered as an active tool to learn Basic English.

Likewise, the objectives proposed at the beginning were accomplished.

Chapter V: Conclusions and Recommendations

Conclusions

Regarding the main objective proposed in this study *How Effective Is the Use of the Duolingo App in Learning Elementary English with Students of Sixth Grade at Colegio Musical Británico?*, it is important to state the effectiveness refers to the degree to which something is successfully carried out, that is, how objectives are achieved and the extent to which targeted problems are solved (Ausenda, 2003).

Therefore, analyzing all the data collected, it is concluded that the use of Duolingo as a mean for the learning of Basic English is in some way effective according to the statements shown next:

Learners' results show that they obtained a better performance after having some classes using the app in terms of vocabulary, grammar, pronunciation and writing. In the items of vocabulary, grammar and writing learners obtained a higher percentage in the post-test in comparison with the pre-test.

Analyzing the post-test results it is evident that learners obtained a better performance in terms of vocabulary as a consequence of Duolingo tasks repetition. This repetition is mainly done in each unit with previous practiced vocabulary mixed with new vocabulary that is trained along the app development.

The survey's results show that the use of Duolingo to learn Basic English calls the attention of students given the presentation of material and the easiness for the management of the platform in which students find an organized presentation of material for the learning.

Kihlstrom (2011) makes reference to this point in where he says that when a material is

presented in an organized form and moreover, it is striking for the learner the memory works better because it finds related topics which are connected between them or share certain features.

Besides the previous conclusion, the survey shows positive results in terms of motivation, learners practice from 1 to 3 hours an autonomously at home without instruction or order of the teacher. Considering the previous information, the use of Duolingo was seen as an intrinsic motivation enhancer that was animated by personal enjoyment, interest or pleasure (Guay et al., 2010). It was considered in this work that motivation was one of the most important aspects to name because in the observation learners totally focused their attention on the activities and there were no problems of distraction and in almost all the cases the activities were done correctly or learners completed them in the time set.

The questionnaire showed a positive result about compliance in learning with the Duolingo app changing positively how students feel when they take English classes. Contrasting the traditional classes defined by Cottels & Millis (1999), like extent readings, attending classes, little participation by students and memorization with the classes in which Duolingo was used, it can be said that the survey's result shows that all learners feel more comfortable when they use the Duolingo App as an instrument to learn.

In terms of acceptability, something that is considered to be socially well or within the realm of what is appropriate or tolerable (Duffield, 2000), learners really like the use of it for learning Basic English. They say that it is an active way in which learning English is easier, active and striking in contrast to the common resources that they use in class like: books, guides and worksheets that they have had.

To start speaking about the weaknesses it is possible to say that the app provides a strict linear structuring for learning Basic English and it becomes arbitrary at some point. This

arbitrariness might make that learners do not have opportunities to produce a meaningful communication and the app lies into the era of behaviorism and it does not include components of new communicative approaches. In this way, the app only brings grammar translation activities and isolated vocabulary tasks. This isolated language tasks appears to make little sense, such as "I am an elephant" without the use of input elaboration or context. Many sentences, such as: "I have two tables", "she has a tiger" or "I want a pet to my lion" seem to be included not for their utility or authenticity, but rather to complete or repeat simple grammar constructions using a specific vocabulary from previous units. This lack to create a contextualized setting and involve new language with previous one in a meaningful way is a serious weakness of the app for an integrated English learning and thus the app only brings opportunities for learning vocabulary.

The app can be considered as a tool for the learning of vocabulary, but it cannot be considered as a completed app for learning Basic English. This reflection is done regarding the activities provided by Duolingo. These activities focus their attention on repetition but it does not provide the opportunity to learners to produce their own output, learners are only involved in a series of activities and they have to follow strictly what is already given by the app. In this case, the own written or oral production by learners is reduced in a big way and a possible own language production is not considered just by using this app.

Recommendations

After being involved in the learning of Basic English for a period of time and taking into account the information obtained, this work might offer some recommendations for teachers and students.

Regarding the development of classes using the Duolingo App, teachers should avoid establishing limits with the use of Duolingo. That is to say, they only need to be collaborators in the activities development and not an authority who tells rules and establishes limits for the use of this app. Students feel more comfortable when they are not asked for completing a certain number of units in a fixed time period.

The use of Duolingo is important for Basic English vocabulary; in this case the app use might be appropriate and bring good results after a period of time.

The use of worksheets based on the Duolingo content brings more opportunities to learn.

These reinforce what learners have done with the app and it might clarify some doubts.

Likewise, teachers might promote the app use in starting levels to support what learners are acquiring in their normal classes.

Finally, the last recommendation is to see technological devices as a tool to support the knowledge acquisition in language learning.

Pedagogical Suggestions

After the development of this work some pedagogical implications will be written here based in the compilation of all the information that this work gave to the researchers. These pedagogical implications are going to be presented in terms of advantages since the point of view of the researchers.

In the development of this research work, we noticed that the Duolingo application is a striking tool for the users, in this case the students of sixth grade that showed a high level of interest and motivation on the use of this as a means in English learning. This interest was demonstrated in the improvement of the topics that were studied, the answers given in the survey and the personal observations by the researchers. In this way and taking advantage of the

motivation and interest, teachers might use this application in their classes some times per week, but it is important that the use of Duolingo goes with the support of some worksheet that is going to serve as identifiers of weaknesses and strengthens.

Moreover, the use of it is not only inside the classroom, it is done outside of it as well, hence, it could be said that students do not use this app only for obligation or to complete a task but because they enjoy using this and use it for own initiative. The teacher can take advantage of this situation and stimulate its use by means of grades to the students that make a frequent use of this.

In the educational field and specifically inside the classroom if there is not the appropriate guidance when learners use the Duolingo app, they can use the technological devices for different purposes and the devices are going to be distractors and learners might not accomplish the principal aim which is learning. For that reason, the teacher has to clarify what the purpose of the use of these devices is. In order to have success with the use of this tool, teachers should clarify to the learners the objectives, purposes and possible results of the use of these devices.

Finally, as it is showed in this research, Duolingo has positive and negative aspects. Regarding the positives features this app takes language gamification involved into the digital game based learning. In where the use of the app might become addictive and learners practice what they know or what they want to learn by the influence of game. In this case games help learners to do something productive and Duolingo provides an interactive interface to involve learners. Motivational messages and e-mails are sent to learners when they do not log for a few days. The mobile app allows learners to use your downtime during the day for a quick study session.

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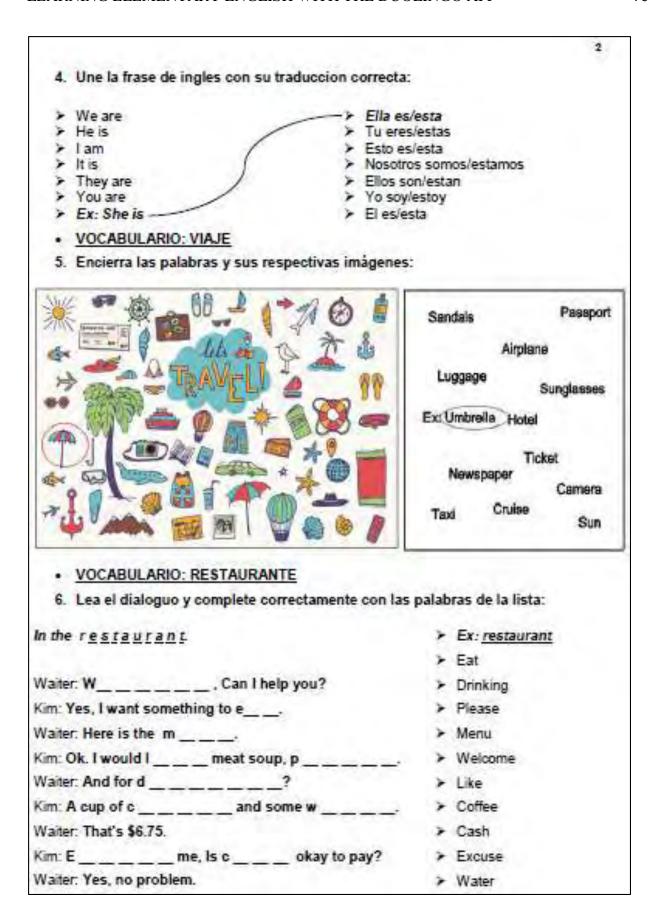
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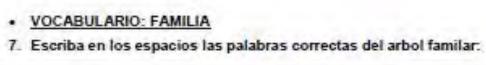
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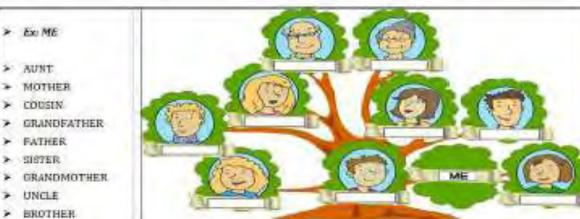
Appendix

Annex A. Pre-test.

	Colegio Musical Británico
	-PRE-TEST-
NAME	E: SCORE:
Instru	cciones para desarrollar el test:
2)	Lee los siguientes pasos y escucha atento a las instrucciones dadas. Dispones de un tiempo máximo de 60 minutos para desarrollar el test. Usa lápiz para desarrollar el test.
4)	No se permite el uso de dispositivos electrónicos o libros durante el desarrollo del
	test. Una vez acabado el test sea completado entréguelo y abandone el curso. Si presenta alguna duda durante el test levante su mano para ser atendido.
INICK	D DEL TEST
	SALUDOS Escribe en los espacios las letras faltantes para completar la palabra: Ex: G o o d N i g h !!
	G d Mming!
	VERB TO BE
a)	2. Escoge la imagen correcta con su palabra correcta: Ex: They are children a She is a Gart She is a Woman He is a Boy
	Organice las frases correctamente: ot/is/Spain/from/He: <u>He is not from Spain</u> .
	I/boy/a/am:
-	girl/are/You/a: She/Colombia/is/from:
>	from/we/Are/Mexico?:
-	l/girl/not/ am/a:



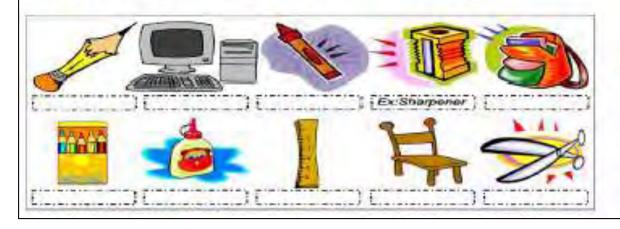




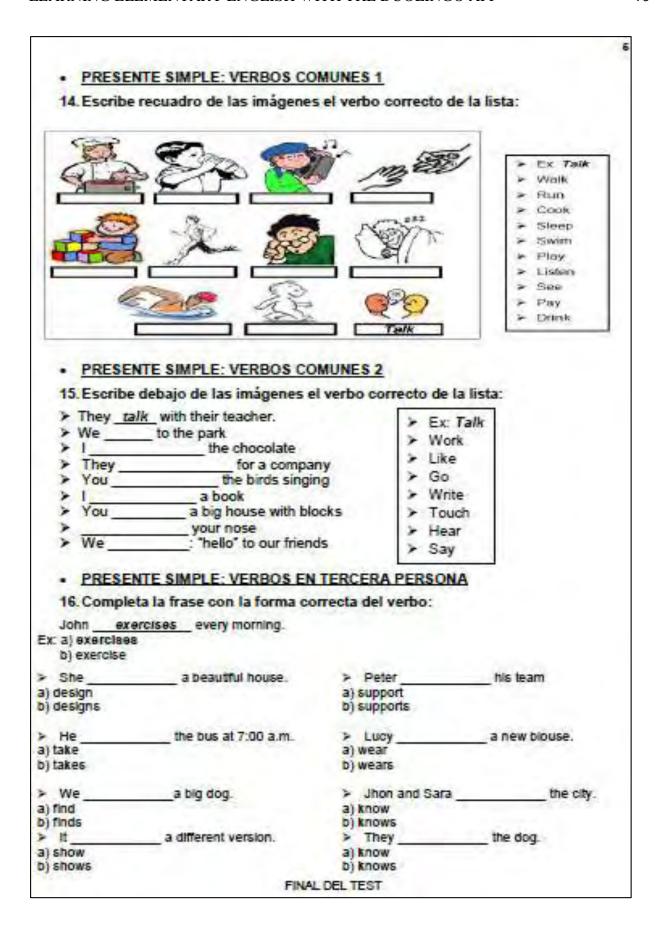
- VOCABULARIO: ROPA
 - 8. Ecribe el número correcto de la lista de palabras sobre cada imagen:



- VOCABULARIO: SALON DE CLASES
- 9. Escribe debajo de las imágenes la palabra correcta en inglés:



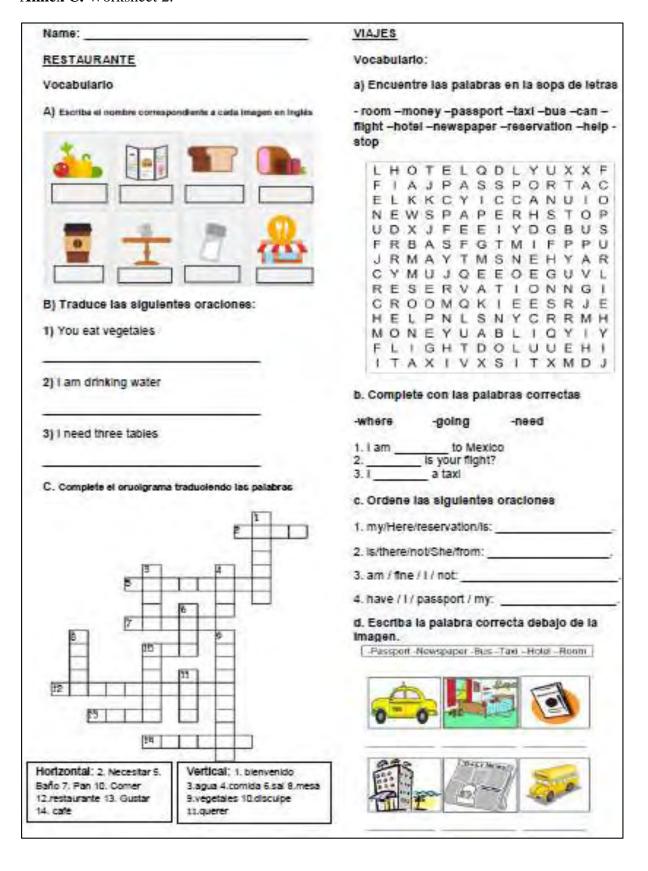
	an elektrologi	4
 VOCABULARIO: DIAS DI 10. Traduce las siguentes or 	A STATE OF THE PARTY OF THE PAR	
 Trabajamos de lunes a vie 		landay to Friday
 Trabajo desde casa: 		
Hoy es martes y no lunes:	-	
 Él trabaja el miércoles: El hogar: 		
> Hoy es martes:		
VOCABULARIO: TRABA	JO	
11. Traduce las siguentes o	raciones de inglés a españ	ol:
 I am an English teacher: E She works here now: My mother is my doctor: 	-, -4, 4, 6, 5, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	
I'm a waiter:		
 Your husband works for a I like Fridays: 	good company:	
. VOCABULARIO: ANIMAI	LES • VOCA	BULARIO: ADJETIVOS
12. Escribe debajo de las im	agenes POSE	SIVOS
la palabra correcta en in	glés: 13. Une lo	s pronombres sujetos con
	sus ac	ljetivos posesivos
*	согтес	tos:
Ex Spider		
30 M	Ex:	vour
	b. You	its
	c. He	our
A W	d. She e. It	my
	f. We	her their
• •	g. They	his



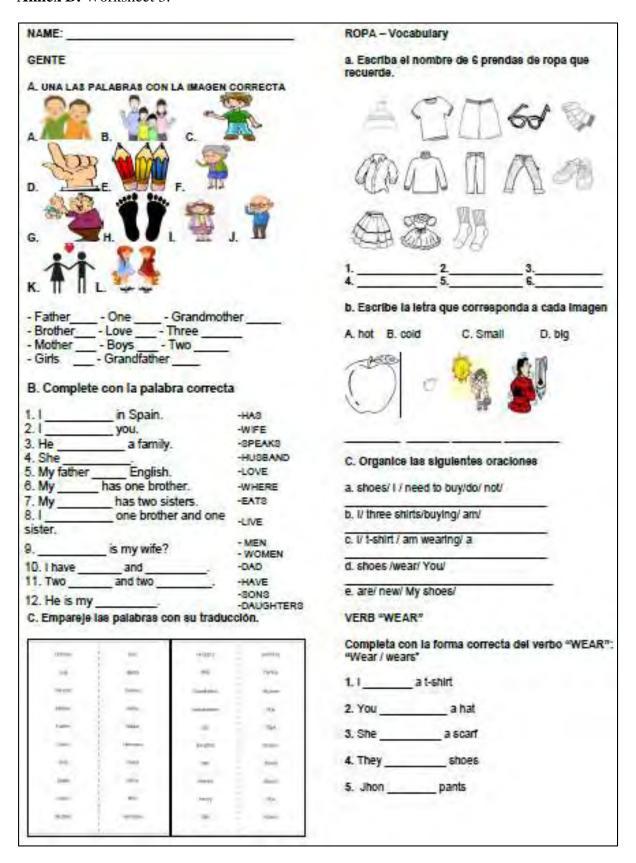
Annex B. Worksheet 1.

NAME:		
SALUDOS		PRONOMBRES PERSONALES (I - you - he - she) VERBO TO BE
A. Escriba debajo el saludo la imagen.	correcto de acuerdo a	A. Complete las palabras con el pronombre correcto
- Good morning - Good aft	ernoon - Good evening	
0		a is a gril b is a boy C are a studer
		B. Complete con la forma correcta del verbo "to be"
2.	C.	A: Juan and he my friend Jhon. He from México.
		B: Hello, I Jhon and I very happy here.
4		C: She Sofia. She a student.
B. Complete el dialogo con l recuadro (no todas se deber		VOCABULARIO
- bye - hello - sorry -	1881	 A. Une con una line la palabra a la imagen que corresponda.
what - how - you goodbye - th	-welcome -	Girl boy woman man
Jhon:_	llo, Jhon! ,Lina! are you? i fine and	
Jhon: I'm good.	?	
Lina: Do you	very well	B. Traduce las siguientes oraciones
English?	Section and Administration	1. Yo soy un hombre
Jhon: no,	_but, I don't	
speak very well. Lina: Ok, have a good	I day	2. Ella es una mujer
Jhon: bye.	uay!	
Judin wye.		3. Lina es mi niña
C. Une los opuestos		
A. Bye	1. Good evening	4. Tú eres una niña
B. Good morning	2. Hello	
		W. T.

Annex C. Worksheet 2.



Annex D. Worksheet 3.



Annex E. Worksheet 4.

Nar	me:	SCHOOL	
NE	GOCIOS - Vocabulary	1. Escriba el cuadro la pa	labra que corresponda
	onga el orden correcto de las letras para nar palabras y escriba la traducción		
1 0	utcomer		
2 6	hereat		
3 ic	hereat	(KENE)	
4 n	eterint	dh are	
5 d	aymon	1 73	
6 W	kor	5t 5t 57	- 10 - Tr
7. p	vkor		
2.0	Organice los dias de la semana	SIX READ BOOK	A STATE OF THE PARTY OF THE PAR
		SCHOOL PEN WRITE	QUESTION FIVE
	iday – Wednesday – Monday – Tuesday – irsday – Friday - saturday	2. Escoja la traducción co	опеста
1.	Monday	-MI hermano tiene que	a. My daughter has to study tonight.
3.		estudiar hoy en la noche.	 b. My brother has to study tonight.
5.			
6.	5	-Elia nos ama.	a. She loves us.
7.			b. She needs us.
	AMMAR - Plurals	-Mi esposo está estudiando español.	a. Your husband is studying Spanish.
1. E	scriba el plural de las siguientes palabras		b. My husband is studying Spanish.
1.0	ffice:2. Work:	-¿Dônde estãs trabajando?	a. Where are we working?
5. 10	eacher: 4. Doctor: 8. Week:		b. Where are you
7. W	ob; 6. Week: vaiter: 8. Student:		working?
	scriba la conjugación correcta de cada	-Quiero que lo hagas.	a. I like you to make it. b. I want you to do it.
ver	bo.	-¿Qué estas estudiando?	a. What are you studying?
W	1. rie the computer		b. What am I studying?
f	A use B uses	-Tengo que estudiar.	a. They have to study. b. I have to study.
	1. He the computer A. use	-Tengo que estudiar. 3. Complete las oraciones Words – studying	atudying? b. What am I studying a. They have to study b. I have to study.
20	3. Hea student	1. I'mbooks 2. My husband is 3. I class	Spanish
1	A. are B. is	4. The book has	

Annex F. Worksheet 5.

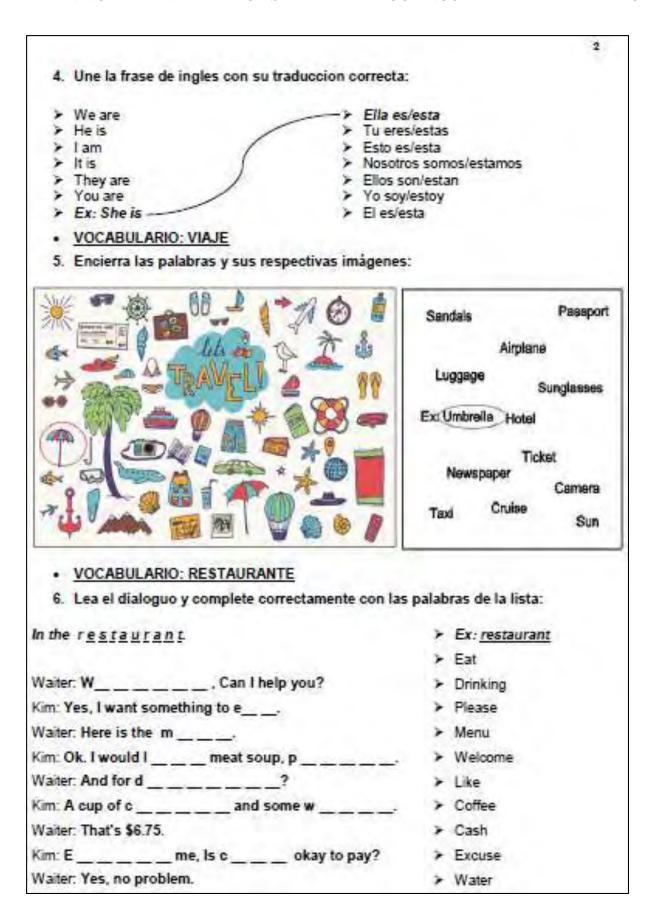
NAME:					
1. Une con una línea	a las palabras con	su respectiva im	agen.		
GIRAFFE	HORSE	1	BEAR	ELEPHANT	
CAT	947		€ € 527∰	BII Du	
DOG S				CR.	
SPIE	DER	TURTLE		MOUSE	
2. Traduce las sigui	entes oraciones.				
			na los pronon tivales.	nbres con los pose	sivo
l. El gato y el perro e	stån comiendo.		ivales.		sivo
. El gato y el perro e	stån comiendo.		a. I b. You	your its	sivo
El gato y el perro e Tengo una tortuga.	stån comiendo.		a. I b. You c. He d. She	your its our my	sivo
El gato y el perro e Tengo una tortuga.	stån comiendo.		a. I b. You c. He	your its our	sivo
2. Tengo una tortuga. 3. Su perro es negro.	stån comiendo.		a. I b. You c. He d. She e. It	your its our my her	sivo
2. Tengo una tortuga. 3. Su perro es negro. 4. Los patos están na	stån comiendo.	adjet	a. I b. You c. He d. She e. It f. We g. They	your its our my her their	
2. Tengo una tortuga. 3. Su perro es negro. 4. Los patos están na	stån comiendo.	adjet	a. I b. You c. He d. She e. It f. We g. They	your its our my her their his	
2. Tengo una tortuga. 3. Su perro es negro. 4. Los patos están no. 5. Los perros pueder	adando.	4. Co	a. I b. You c. He d. She e. It f. We g. They omplete con ecto MY – OUR –	your its our my her their his	
2. Tengo una tortuga. 3. Su perro es negro. 4. Los patos están no. 5. Los perros pueder	adando.	4. Co corre	a. I b. You c. He d. She e. It f. We g. They omplete con ecto MY – OUR –	your its our my her their his	
El gato y el perro el 2. Tengo una tortuga. Su perro es negro. Los patos están no base de la companya de la c	adando. n nadar. males.	4. Co corre HIS - 1. I h	a. I b. You c. He d. She e. It f. We g. They omplete con electo. MY – OUR – ave a dog, I lo	your its our my her their his THEIR – HER ove dogplanet	
2. Traduce las siguid 1. El gato y el perro el 2. Tengo una tortuga. 3. Su perro es negro. 4. Los patos están na 5. Los perros pueder 3. Me gustan los anir 7. Las tortugas come	adando. n nadar. males.	4. Cocorre HIS - 1. I h 2. Th 3. Pe	a. I b. You c. He d. She e. It f. We g. They omplete con electo. MY - OUR - ave a dog, I lone earth is	your its our my her their his THEIR – HER ove dog planet juice sandwiches	

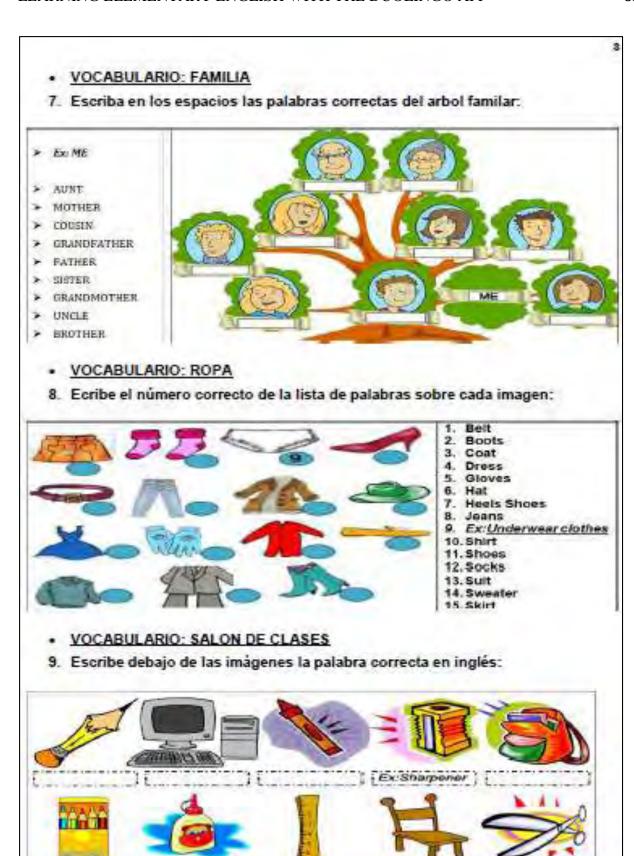
Annex G. Worksheet 6.

NAME:	4. Une con una linea la	traducción.
Presente		
Complete con la forma correcta del verbo		- IR
•	WALKS	
1. I and she (SWIM)	• RUN-	 PAGAR
2. She In the menu. (WRITE)	RUNS	
3. I and she	• WANT -	 GUSTAR
(WALK)	WANTS	
4. He a book. (WRITE)	• GO - GOES	- CORRER
5. We a book. (WRITE)	PAY - PAYS LIKE -	HACER
6. She (WALK)	• LIKE-	 DECIR
7. I books (WRITE)	• PLAY-	- CONTAR
obbit. (William)	PLAYS	- CONTAR
	• TOUCH-	 JUGAR
2. Complete con el verbo correcto	TOUCHES	- Joan
- cook – watch – sing – walk – play - write	• HEAR -	 TOCAR
	HEARS	- 10040
1. I a movie	• RAIN-	 ENCONTRAR
2. He a movie 2. He a song.	RAINS	and the term of the terms.
	 LISTEN - 	 CAMINAR
3. We In the park.	LISTENS	
4. They basketball.	 SAY - SAYS 	 QUERER
5. She the food.	• TELL-	- OIR
6. You, a book	TELLS	
3. Traduce las siguientes oraciones	 MAKE – 	 LLOVER
1. Él trabaja en Call	MAKES	
	 FIND - 	 APOYAR
	FINDS	
2. Yo tomo jugo	 WORK – 	 SABER
	WORKS	
3. Ellos escuchan musica	 SUPPORT - 	 TOMAR
	SUPPORTS	
	 KNOW - 	 ESCUCHAR
4. Tú caminas todos los días	KNOWS	
	 TAKE - 	 TRABAJAR
5. Ella corre	TAKES	

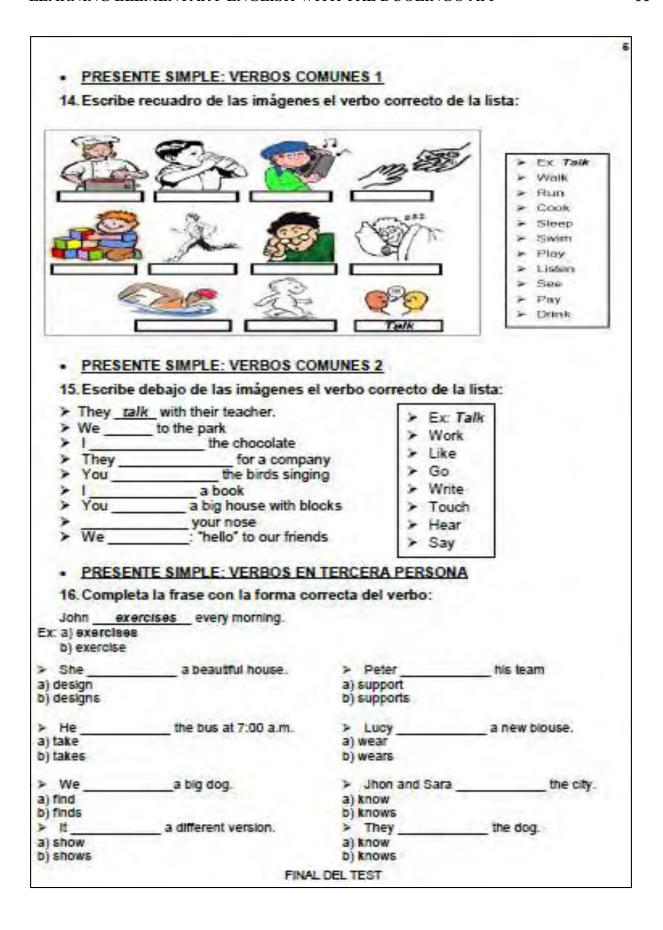
Annex H. Post-test.

	-POST-TEST-
VAME	. SCORE:
nstruc	ociones para desarrollar el test:
1)	Lee los siguientes pasos y escucha atento a las instrucciones dadas.
	Dispones de un tiempo máximo de 60 minutos para desarrollar el test.
3)	Usa lápiz para desarrollar el test.
4)	No se permite el uso de dispositivos electrónicos o libros durante el desarrollo del
5)	test. Una vez acabado el test sea completado entréguelo y abandone el curso.
	Si presenta alguna duda durante el test levante su mano para ser atendido.
-	
4ICIC	DEL TEST
	SALUDOS
1.	Escribe en los espacios las letras faltantes para completar la palabra:
	Ex: Good Night!
-	Gd Mrning!
	Sp_n_sh
7	Good
	ftrnon!
	VERB TO BE
15	2. Escoge la imagen correcta con
10.00	su palabra correcta:
10	Ex: They are children E
7	Charles City
	She is a Girl: He is a Man:
440	She is a Woman:
A	
	Organice las frases correctamente:
3.	t/is/Spain/from/He: He is not from Spain .
x: no	l/bov/a/am:
x: no	I/boy/a/am:girl/are/You/a:





	2000 Day	
VOCABULARIO: DIAS DE LA	The state of the s	
10. Traduce las siguentes oracion	nes en inglés:	
	Ex: We work from Monday	to Friday .
Trabajo desde casa:		-
Hoy es martes y no lunes:		
Él trabaja el miércoles: El bassa		
El hogar: Hoy es martes:		
VOCABULARIO: TRABAJO		
11. Traduce las siguentes oracio	ones de inglés a español:	
	Yo soy un profresor de inglé	5 .
> She works here now:		
> My mother is my doctor:		
> I'm a waiter:		
 Your husband works for a good 	company:	
➤ I like Fridays:		
. VOCABULARIO: ANIMALES	VOCABULARI	O: ADJETIVOS
12. Escribe debajo de las imágen		
la palabra correcta en inglés:	A CONTRACT OF THE PARTY OF THE	mbres sujetos con
	sus adjetivos	posesivos
	correctos:	
Ex. Spider	1	
-	Ex:	vour
	b. You	its
Car >		
	d. She	our
	e. It	my
	10,311,301	her
	f. We	their
	g. They	his
60		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
300		
4 (3)		
100 m		



Annex I. Questionnaire.

SURVEY ABOUT CONFORMITY AND DAILY USE OF DUOLINGO					
Encuesta #					
Primera parte.					
Instrucciones:					
Lea las preguntas y Marque con una equis (X) la opción que usted crea sea de su	agrado.				
No. Pregunta	SI NO				
Usted piensa que las clases de inglés con Duolingo son más divertidas?					
¿Usted cree que con Duolingo ha sido más fácil aprender inglés?					
 ¿Usted piensa que las actividades de Duolingo son más interactivas que las clases tradicionales de inglés? 					
4. ¿Se sintió cómodo con el uso de Duolingo en la clase de inglés?					
¿Usted practicaba ingles usando Duolingo fuera de clases?					
6. ¿Aprendió nuevas palabras de inglés usando Duolingo?					
¿Aprendió aspectos gramaticales con el uso de Duolingo?					
8. ¿Aprendió a pronunciar de manera correcta alginas palabras de inglés usando Duolingo?					
¿Aprendió a escribir de manera correcta algunas palabras de inglés					
usando Duolingo?					
と と Seguirá usando Duolingo para aprender inglés en próximas					
oportunidades?					
Segunda parte.					
Instrucciones:					
Marque con una equis (X) la intensidad horaria que usaba Duolingo diariamente.					
No. Horas Menos de Una Hora Dos Horas Tres Horas Más de Tres					
Diarias una hora Horas					
diaria					