

# El aprendizaje móvil como recurso educativo para fomentar la motivación en el aprendizaje del inglés como lengua extranjera<sup>1</sup>



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## MOBILE LEARNING AS AN EDUCATIONAL RESOURCE TO FOSTER MOTIVATION IN LEARNING ENGLISH AS A FOREIGN LANGUAGE

### ABSTRACT

Motivation plays a pivotal role when learning a foreign language. It is a relevant factor in determining the willingness of students to learn. This documentary research is aimed at analyzing previous studies regarding the motivation of university students at an intermediate level to learn English as a foreign language (EFL thereafter) using Mobile Learning (also known as M-Learning). This study focused on how mobile learning is used and approached in English classes as well as its influence on students' motivation. This body of information effectively showed that Mobile Learning and its implementation in English lessons contribute to increasing students' motivation. This type of learning will not replace teachers, but it can become an innovative resource through the current and emerging mobile educational applications.

### KEYWORDS

Mobile learning, motivation in EFL, intermediate level, university students

## EL APRENDIZAJE MÓVIL COMO RECURSO EDUCATIVO PARA FOMENTAR LA MOTIVACIÓN EN EL APRENDIZAJE DEL INGLÉS COMO LENGUA EXTRANJERA

### RESUMEN

La motivación juega un papel fundamental en el aprendizaje de un idioma extranjero, siendo un factor relevante para determinar la disposición de los

estudiantes. Esta investigación documental se enfoca en el análisis de estudios previos sobre la motivación de estudiantes universitarios de nivel intermedio para aprender inglés como lengua extranjera (EFL) a través del aprendizaje móvil (también conocido como M-Learning). Este estudio se centra en cómo se utiliza y aborda el aprendizaje móvil en las clases de inglés, así como en su influencia en la motivación de los estudiantes. Se concluyó que el aprendizaje móvil y su implementación en las clases de inglés contribuyen efectivamente al aumento de la motivación de los estudiantes. Este tipo de aprendizaje no reemplaza a los docentes, pero puede convertirse en un recurso innovador a través del uso de aplicaciones móviles actuales y emergentes.

### PALABRAS CLAVE

Aprendizaje móvil, motivación en EFL, nivel intermedio, estudiantes universitarios.

## APRENDIZADO MÓVEL COMO RECURSO EDUCACIONAL PARA FOMENTAR A MOTIVAÇÃO NO APRENDIZADO DE INGLÊS COMO LÍNGUA ESTRANGEIRA

### RESUMO

A motivação desempenha um papel fundamental no aprendizado de um idioma estrangeiro. É um fator relevante para determinar a disposição dos alunos. Esta pesquisa documental está focada na análise de estudos prévios sobre a motivação de estudantes universitários de nível intermediário para aprender inglês como língua estrangeira (EFL) através da aprendizagem móvel (também conhecido como M-Learning). Este estudo se concentrou em como o aprendizado móvel é utilizado e abordado nas aulas de inglês, bem como sua influência na motivação dos alunos. Esta pesquisa concluiu que, efetivamente, a aprendizagem móvel e sua implementação nas aulas de inglês contribuem para o aumento da motivação dos alunos. Este tipo de aprendizagem não substituirá os professores, mas

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*pode se tornar um recurso inovador através do uso de aplicativos móveis atuais e emergentes.*

### **PALAVRAS CHAVE**

Aprendizado móvel, motivação em EFL, nível intermediário, estudantes universitários

### **INTRODUCTION**

This study was focused on the importance of motivation when learning English as a foreign language and how the implementation of Mobile Learning may influence it. Considering a study of the Cambridge Assessment English (2018), kids who show a positive attitude when learning English are more disposed to work hard and be patient when the learning process becomes more difficult. For that reason, nowadays, with the relevance of Information and Communication Technologies (ICT), it has been considered that the use of mobile apps may improve teaching and learning approaches, which would have an impact on students' motivation. As a matter of fact, in recent years, there has been an urgency for teachers to integrate technology in class. In this sense, the main question which guided this research project was: *How mobile learning may influence university students' motivation towards learning English as a foreign language at an intermediate level?*

This study started with a group of students with an intermediate level of English. A survey (see Appendix A) was conducted with the aim of determining their experience in learning English, their attitudes towards technology, and the reasons why they were studying English. The information showed that there was a lack of motivation towards learning English among students. Most students stated that they studied the language just as a requirement to graduate because it was mandatory throughout their school life. The survey also indicated that most of the students think that technology, in particular the use of apps, would increase their motivation in learning a new language.

In addition, four English professors were interviewed (see Appendix B) in order to find out their teaching methods, the use of technology in their classes, and students' motivation towards learning English as a foreign language. One of the main findings of this interview was that professors agreed on the fact that the best approach to teach English to students who study engineering, or students from different academic fields, is working on English for Specific Purposes (ESP)

as well as implementing several strategies to enhance and motivate their learning process.

With the unforeseen COVID19 pandemic, professors and students were forced to switch from face-to-face lessons to online lessons. Consequently, both had to learn how to use technology to continue with the teaching-learning process. In this new mode of teaching, the use of technology has become more relevant than ever. Therefore, it is very important to use different strategies to increase students' motivation towards learning a foreign language.

Given that the world is evolving every single moment and people are creating and breaking ground to see, understand and put in practice their knowledge, it is evident that English needs to be taught with the implementation of technological resources. That is why this documentary research is focused on analyzing specific studies concerning the use of technological tools in EFL classrooms and its impact on students' motivation when learning a second language.

After identifying students' needs, two main concepts underlie this research: motivation and mobile learning to learn English as a foreign language.

### **MOTIVATION TO LEARN ENGLISH AS A FOREIGN LANGUAGE**

According to Baumeister (2016), motivation is “*wanting*”, but not just as a desire, but the necessity of people to get or achieve something that allows them to advance and makes them feel full and comfortable. Reeve (2018) defines motivation as a condition inside people, which makes them desire a change, either in themselves or in the environment in an adaptive, open-ended and problem-solving sort of way. Although there are millions of answers to the term motivation, all of them have a common point: wanting a change.

For Dörnyei and Ushioda (2011), motivation concerns the immensely complex issues of human behavior such as the way people make decisions and the number of motivational techniques that exist nowadays. Motivation is responsible for why people decide to do something, how long they are willing to sustain the activity, and how hard they are going to pursue it.

During the learning process, there are external aspects such as social, psychological, behavioral and cultural determinants that may influence students. It also involves internal factors such as affective and cognitive

behaviors. Quan (2014), in reference to Dörnyei (1998), states “motivation is one of the key factors that influence the rate and success of second/foreign language learning” (p.1). In other words, there is a complete educational and learning language process when teachers consider implementing some motivational strategies to achieve their students’ objectives.

Considering students’ diversity and their own motivation towards learning, it is necessary to study in greater detail some of the different types of motivation such as: intrinsic motivation and extrinsic motivation because these were also relevant for the development of this project.

### **INTRINSIC MOTIVATION**

Ryan and Deci (2000) identify intrinsic motivation as the way to satisfy activities with some reward in return. They affirm that “when intrinsically motivated a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards” (p.56). Consequently, students who enjoy their learning process are more likely to understand and memorize information, which are skills that are needed when learning a new language.

Furthermore, intrinsic motivation is ideal to work with inside the classroom because it promotes learning, encourages participation, and increases students’ interests to achieve their goals. These are elements that have an impact on the group’s motivation, which in turn makes the learning process much easier. However, there are some elements of intrinsic motivation that need to be considered because they may modify the learning environment, depending on how students participate or how they lean into each other. The goal is to make them feel welcome into the process and motivate them in the correct direction.

Dörnyei and Ushioda (2011) established the internal factors that should be taken into consideration when talking about this kind of motivation: the optimal degree of challenge, which means that there must be some difficulty to achieve the required goals, and the personal relevance, which implies students working on their own in their educational process and researching or studying by themselves.

### **EXTRINSIC MOTIVATION**

Following Garzon and Sans (2012), extrinsic motivation refers to the involvement in any type of activity which

gives students an external reward. These rewards tend to hinder intrinsic motivation and its value considering its importance in the educational process. Even so, when the learning process has a prepared structure, a clear orientation towards knowledge and the students’ attitude is positive, extrinsic motivation works also as a benefit to the learning process.

For that reason, self-determination is positive, and autonomy is needed. If these aspects are developed, they will foster self-regulation among learners. This then eliminates some prejudices of the external reward and highlights its benefits in improving students’ grades and promoting healthy competition with the aim of reaching higher achievements.

Dörnyei and Ushioda (2011) established that peers, parents, and the community in general are important to develop extrinsic motivation because of the nature of the significant yet constant interactions. Furthermore, other authors highlight the relevance of the amount feedback given to students. They state it needs to be given in a proper way, avoiding punishments or sanctions to weaken the process. Therefore, networks created among students, their comfort, the external resources, and the teaching environment in the learning practice are needed to show a real improvement.

### **MOBILE LEARNING TO LEARN ENGLISH AS A FOREIGN LANGUAGE**

To Kurt (2015), educational technology has the goal of improving a specific aspect of teaching and learning and it involves several types of tools such as software tools, software types, integrated learning systems, equipment use, multimedia integration, audio and video conferencing, distance education, classroom configurations, web board, web pages and mobile apps. Therefore, teachers need to keep themselves up to date with the materials that are more relatable to the students.

Even though educational technology could be implemented inside the classroom, Segev (2014) found that there are some educational tech tools with complex interfaces, making them not appropriate to the teaching and learning practice. That is the reason why he decided to work with M-Learning because it is less structured than other types of E-learning. It is crucial that educators be more interested than ever in being part of the evolution so that students enjoy going deeper into the learning process.

According to Crompton (2013), M-Learning is defined as “learning across multiple contexts, through social and content interactions, using personal electronic devices” (p.4). This new form of learning is focused on learners’ mobility, giving them the opportunity to improve their skills using their own mobile tools as aids and materials, making them part of the learning process.

Zijuan (2016) defines M-Learning as allowing students’ interaction in real time with previous and new knowledge through their mobile devices. In this way, teaching practices become more efficient considering that the fragments of time used to study in this methodology are very minimal and flexible. In addition, this researcher also claims that M-Learning gives students the autonomy to choose from the place they can practice to the type of skill or ability they want to improve, for example, oral comprehension, textual production, oral production, or textual comprehension.

He also affirms that, at the moment of practice through their mobile devices, students prefer those activities related to pronunciation, meanings, lectures, and listening.

It is also necessary to describe important elements of M-Learning such as the most common areas of language learning, the teacher, the learners and the content roles in M-Learning, elements that are developed below.

### **USUAL AREAS OF LANGUAGE LEARNING**

When learning English, students’ needs are commonly focused on the skills; therefore, the expectation is for listening, writing, reading, and speaking to be the aspects students like to practice the most. To begin with, vocabulary learning is the aspect of language that Miangah (2012) positioned as number one because it can be practiced faster with just one message per day that contains a pictorial annotation or/and a brief description.

Although, this author stated students usually like to work on reading comprehension. Reading is the most complete skill because it involves vocabulary and grammar, and if the app, which the teacher selects to work in class, has the reading function accompanied by a text announcer, it will also help the practice of pronunciation and listening. However, this skill takes the longest time to develop.



## TEACHER'S ROLE IN M-LEARNING

Although this research project is focused on boosting motivation towards EFL by means of M-Learning, teachers play an essential role in the development of this current learning practice. According to Viñals and Cuenca (2016), teachers are the principal element in the digital area and, although their role has been known as a transmitter or facilitator of knowledge, in this methodology, they become a guide and a supervisor of students' learning process. Consequently, it is important to invite learners to explore, take responsibility for their own learning, give significance to it, and analyze the information they need. Although a study completed in Pakistani Universities showed that most of the students, despite the benefits of M-Learning, prefer to have the physical presence of teachers in their learning process because they are an instant help if there are questions or if something is not clear for them (Imtinan, 2013).

## LEARNER'S ROLE IN M-LEARNING

On the other hand, it is relevant to mention the importance of students in the process because they are the center of education, in contrast to other traditional educational methodologies developed so far. In educational technology, it is essential to establish the individuality of the students' process, allowing them to advance at their own pace.

Even if the process is supposed to be developed individually or inside the classroom, collaborative work must be involved because it is a vital component of M-Learning, as social inclusion is the key to collaborative learning. Learners must work together towards one common goal according to Bidin and Ziden (2013).

M-Learning gives students the possibility to explore their needs, interests, and experiences in the language learning process and in this same procedure, they can also choose the app they want to use, or the goals they want to achieve, and even add new ones.

## CONTENT ROLE IN M-LEARNING

M-Learning apps must provide students the complete information of the thematic units to obtain positive learning experiences. In this regard, Siragusa et al (2007) stated that students who attend face-to-face classes may receive content in class and additional content online with mobile technologies in order to

complete and support the English learning process meaning that mobile learning fulfills the resource role inside the classroom.

Contents of M-Learning apps must be decided by the educational community for the sake of the results that teachers hope to elicit, along with students leading their own process that would motivate them to work in a comfortable environment that promotes individuality. Siragusa et al (2007) described that the detail and the extent of the content provided to students may vary depending upon students' pedagogical needs.

## RESEARCH DESIGN

This research project was developed under the principles of documentary research, which is a technique of the qualitative approach. For this reason, this project attempted to collect and analyze the information other researchers identified in the past in order to improve motivation in university students of a foreign language by means of mobile learning.

### *Study Approach*

This study was developed under the foundations of the qualitative approach since the interest is to try to comprehend or observe how people see and experience the world as a social fact. That is why, although there was no numerical data collected, this information will be objectively documented as a proper researching exercise.

According to Hernández-Sampieri (2014), this approach is based on an inductive process, in which the researcher explores and uses non-standardized data collection methods and tends to find people perspectives such as emotions, points of view, experiences or situations to which they have encountered in the researching process. In the same way, this qualitative process is suitable to comprehend events from the perspective of those who had lived it. Finally, this author affirms that a qualitative approach gives depth, investigative wealth and it does not follow a strict sequence.

Furthermore, this approach is the most appropriate for this project because its purpose is documenting data in order to acknowledge the necessity of including the use or the implementation of technological tools when learning EFL aiming at fostering students' motivation.

### *Study Type*

This documentary research is defined by Payne and Payne (2004) as "the techniques used to categorize,

investigate, interpret and identify the limitations of physical sources, most commonly written documents whether in the private or public domain” (p.61). Moreover, Luvezute et al. (2015) define the documentary investigation as “a procedure for understanding social reality and knowledge production through the analysis of various types of documents”. As it stands, this investigation includes documents such as articles, thesis, and book chapters that make up the corpus of this study.

As with other types of research, documentary investigations need to be developed following a clear methodology. Based on Cohen et al. (2007), this methodology includes aspects such as, statement of the problem, research questions and objectives, theoretical framework, research design which considers data collection, reviewing data and its organization, data analysis and conclusions. In the first three steps, researchers need to build the problem statement, the research questions and the objectives which prompted them to formulate the documentary research. In the fourth step, it is necessary to start collecting as much data as it is considered necessary and useful in the research process; it is important to verify and classify the collected information in order to select the irrelevant or advantageous aspects to the research project. Finally, to grant an order for these parts of the methodology, the organization step includes a comparison between the researcher’s collected data, aimed at making references and textual cites, which then allows the support of theories and interpretations. In the fifth step, the researcher makes a data analysis and develops a document where the point of view and a reflection of the personal interpretation about the subject of study. Finally, in the conclusions, the project is ended, and it is the phase where the researcher concludes showing the key points wanted to be demonstrated.

The ultimate purpose of examining documents is to achieve an understanding of the meaning and significance of the topic under study, so it is important to value information and the sources of it. That is why it is also relevant to pay extra attention to the authenticity and credibility of the chosen documents in order to interpret them objectively. Given the background, this type of research is selected with the purpose of documenting as much information as possible about the problem statement of the present project to provide a synthesis of some of the most relevant studies related to this subject, which is the use of M-Learning to increase motivation in EFL classrooms.

## FINDINGS AND DISCUSSION

This documentary research includes a total of twenty-five (25) documents (named corpus thereafter) that were collected and analyzed. It was first classified according to the type of text (see table 1) and then, it was organized chronologically (see table 2).

**TABLE 1.  
CORPUS SORTED BY TYPOLOGY**

Type of document	Number
Scientific articles	17
Research projects	5
Book chapters	3

**TABLE 2.  
CORPUS SORTED BY CHRONOLOGY**

Year	Quantity
2011	1
2012	5
2014	2
2015	2
2016	3
2017	2
2018	3
2019	2
2020	5

Once the documents were analyzed, and the relevant themes were selected, it was necessary to develop those aspects that are part of the M-Learning implementation inside the classroom, that is to say, those elements that were also important when using this methodology in EFL, and were significant to this documentary project.

During 2020, Refat et al developed research about grammar, an element considered a crucial aspect in order to understand a new language, and with the Mobile-Assisted Language Learning (MALL) to help in the improvement of motivation. The group of researchers developed a study with a mixed methodology, where the participants selected belonged to a university English class, and after a quick test five groups were randomly created.

Keller’s technique (1987, cited in Refat, 2020) was used, and the Attention, Relevance, Confidence and Satisfaction of the ARCS Motivational Model measured students motivation, and the M-Learning tool was



used to learn the present tenses, and contain four modules: (1) log-in module with some tutorials about the app, (2) a learning module, (3) an exercise module with fill in the blanks, multiple-choice questions, table matching, quizzes, sentence building on present tenses, (it is important to note that at the end of this module, feedback was given) and (4) a self-evaluation module in order to identify students' satisfaction. Songs and images were added as an incentive to generate interest, also, they used common examples, and real-life instances.

As a result, the five groups were highly motivated, the audiovisual instructions were satisfying, and their concentration was also increased, and the four constructs of the ARCS model helped the meaningful learning. Therefore, these aspects are relevant to the present investigation, thanks to the description of the modules and activities.

Wang et al. (2020) identified vocabulary as a fundamental element in language acquisition; they deduced that this is a long and tedious process during which students lose their motivation and started their investigation in order to attest the benefits of Mobile-Assisted Vocabulary Learning (MAVL thereafter).

The methodology they used is based on 28 Chinese native speakers who were currently in college and took the same English class with two different instructors. After a random selection and a pre-test, students were divided in two groups, and participated in a three-week study.

At the end of this period session, before the findings are presented, it is important to highlight that both groups decided to create a WeChat group where they could support each other. The results from the session showed that the Control Group, during the pre-test exam, did a great job and obtained more points than the Experimental Group because they were allowed to review the topics and vocabulary before class in order to understand it better. As the experimental group didn't do it, the difference in results were evident, but only at the end of the exercise was the statistical difference evident with the experimental group. Also, in terms of motivation, the analysis rested correlative, with the experimental group being deemed as highly motivated, but it rested the same.

Rivera (2018), in her research project, aimed at promoting a virtual learning setting in order to increase students' interest and boost their motivation in learning English as a foreign language. This project arose from

the fact that teachers of the Language Department in a private university still teach in a traditional way and their main teaching resource is a textbook. Although other teachers use the Moodle platform, they just share links to reinforce English knowledge so that students work autonomously. However, teachers do not provide any feedback and there is no interaction between the teacher and the students.

Four instruments were used to gather information in this action research study: a field diary, an online forum, a survey, and students' artifacts. The results showed two categories: first, collaborative work to incite motivation meaning that students are inclined to work better when working in groups. It allows students to learn more language skills during problem-solving and instills motivation thanks to the teacher and group's support. Second, the use of technology to enhance language learning shows the important role that ICT plays in language learning since it catches students' attention and motivates them.

The article of Baby (2019) did an experimental analysis of using mobile phones to the improvement of the quality of education in terms of intrinsic motivation, consequently, this study explores how mobile devices can be used effectively for enhancing the involvement and motivation of students in various learning activities to promote learner autonomy and peer learning opportunities within the classroom.

To develop this idea, mobile learning was implemented partially in two undergraduate classes consisting of 29 and 32 students each from ELT class at Dhofar University in Oman. They utilized grammar topics to do 15 minutes worth of worksheets on their cellphones. The class A were secretly engaged to the phone the whole time, using the teacher listening as a pretext, meanwhile the class B was only allowed 10 minutes to learn the topic with free time to use the mobile, and the teacher only was there as a facilitator if needed, and the last five minutes of the topic would be supplemented by the teacher.

Group A composed by male students, and the sample to develop the experiment, had a considerable improvement in terms of motivation, participation in group activities and learning. Group B, composed of females, had no difference or as the author said the difference from the first test to the last test was negligible.

As a consequence, Baby (2019) established that the results showed that "if the motivation level is high

among students, the mobile learning application is not of much relevance. However, mobile learning applications are very effective among low achievers for enhancing internal motivation as it promotes learner autonomy through peer learning opportunities".

After analyzing the studies mentioned above, four (4) themes were identified: students' level of technological skills and their experience using them, teacher's role, the identification of the components that apps should have, motivation towards learning EFL and collaborative work.

Each of the themes were selected thanks to the relevance they have in the teaching-learning process; therefore, if the main idea to develop an English class is for the students to work with M-Learning, it is necessary to acknowledge their capacity when using phones. Thus, Cabrera (2020) mentions that technological skills give students innumerable applications and tools that allow learning to be more dynamic and accessible, so students are no longer restricted to their classrooms. For this reason, it is important to determine if students have good skills or knowledge when using mobile devices for academic purposes.

The second theme is the charisma or the role the teacher is going to be developing during the class, because he is there just to help or clarify some topics students find difficult to understand. Kuimova et al (2018) mention that it is important to value teachers' help in order to develop activities in a good way and according to the app design and of course to understand one hundred percent the main idea of the English class.

The content of apps is also relevant to this documentary article, because even if it is known that there are tons of language learning apps, not all of them are very well designed or they are not inspired to be helpful inside the classroom, therefore inside this theme a selection of apps and the activities should be included. The fourth topic is motivation towards learning EFL, and as mentioned by Refat et al (2020), it is important for the content to be focused on students' context in order for them to be interested in the learning process and in the M-Learning class. Consequently, collaborative work is a big part of the process thanks to the class methodology intertwined with the importance of having a bit of extrinsic motivation in order to make the process more fun.

In that way, one of the key elements before starting to work with M-Learning is the one mentioned by Salehi

and Salehi (2012), Yang (2012), Alhassan (2016), Hashim et al. (2016), and Cabrera (2020), who stated that it was crucial to evaluate students' level of technological skills and their capacity to use them effectively. This is relevant and interesting because M-Learning is supposed to be a plus in the teaching process, a strategy students enjoy, therefore prior knowledge with the use of Mobile technology is important as students should recognize and know how to use it.

If there is a barrier of any kind, like age, not having a mobile phone, or even not knowing how to use a mobile device in general, the implementation of M-Learning would be compromised, and its relevance to the learning and teaching processes could be ineffective because students should feel motivated and interested in the lesson using their mobile phones. For this reason, if the use of mobile phones does not provide a relaxed atmosphere, then, it should not be included in the process.

The second repeated element in the studies was to define whether the teacher's presence and role was necessary in the language learning process with a mobile device. In this matter, Bahous et al. (2011) started developing the idea that teachers should know and understand mobile apps in order to guide students, or to give technological support at schools when needed.

Kuimova et al (2018) indicated that in the English learning process through M-Learning, students reflected on the value teachers have inside the classroom and their continuous help is needed to use the apps effectively and be able to understand the topics. Thus, the role that teachers must play in their teaching practice is one of a guide.

Furthermore, the improvement of students' skills via M-Learning needs to be the top priority. According to Hashim et al. (2016), using tools and applications inside the classroom as a resource for language learning has become a huge support, not just for students, but for teachers since with their implementation teachers started to improve with new teaching methodological practices.

On the contrary, according to Hidayati and Diana (2019), the teacher-student relationship has changed, and nowadays, teachers are no longer the only resource to learn. Therefore, there is no need for a teacher to know how to use mobile apps, even more so because mobile technology is constantly evolving, and some teachers

find it problematic to work with tech devices and be up to date with the current situation.

Also, according to Bahous et al. (2011), apps are oriented towards students, not teachers, so Salehi and Salehi (2012) pointed out that the existence of teachers who are reluctant to use technological strategies in classroom activities does not benefit students at all.

The third reiterated element identified in the articles was the identification of the components of apps and in this matter, many researchers added various crucial factors to take into consideration.

To begin, it is important to create topics that interest students (Bahous et al., 2011). Furthermore, Yang (2012) established that apps should have activities such as filling the gaps, problem-solving, and online discussion tasks. In their own way, Chester et al. (2016) built a technological tool to learn words with the use of GPS and a semantic similarity rule, which is considered to be positive because it provided students with materials based on a real context. GPS tech detected the world context and the semantic similarity rule provided students with words according to the place they were and explained their definitions.

These authors also mentioned that augmented reality, context awareness, and physiological awareness are elements to be taken into consideration in the learning materials and activities, which are quite relevant and significant to students. Yang (2012) added that the sessions should be designed individually and differently in order to avoid monotony, and Alemi et al (2012) established that describing vocabulary through SMS helped students to retain vocabulary easier.

Refat et al (2020) added that it is important that apps contain video tutorials about the contents of the app, a learning module, an exercise module with activities as the ones described before, or as quizzes, table matching or writing their own sentences, and at the end of it the feedback should be given.

Up to this point, the mobile apps used in some of the investigations were Taplingua Inn, Duolingo, Kahoot, Whatsapp, Multitran, Google Translate and Formative. The first app, Taplingua Inn, used by Rico et al. (2014) was implemented in a timeline to develop: listening, writing, vocabulary, grammar, and reading skills. This app was chosen because it contains visual aids, native speakers' explanations, vocabulary, grammar issues, and a wide variety of English games to practice at all

levels and in all skills. In addition, these elements were linked to gamification, flipped classroom, M-Learning in a micro lesson format, and task-based teaching methodologies.

Since then, Guaqueta (2017) explored Duolingo and Kahoot to assess vocabulary. He concluded that the learned vocabulary had a life-long significance and helped students with reading comprehension, which is a critical aspect of language learning that should be taken into account.

Continuing with the group of apps, Whatsapp, Multitran, and Google Translate were used by Kuimova et al. (2018) in order to enhance all skills, but as the sample had issues with the internet connection, it was deduced that the app needed to include offline and free activities in order to develop a full experimentation according to the context.

This investigation considered two aspects that were not identified in any other research analysis: connectivity and offline work. In other words, M-Learning apps should take into consideration the internet connection, or the signal when referring to rural spaces because, even if the apps are available anytime anywhere, they require internet connection, an element that should not be an impediment when implementing different methods of education.

The last research was about Formative where Cabrera et al. (2020) found different elements to work with that engaged students through their mobile devices by providing them with various kinds of activities which encouraged students' participation and recognized motivation as an important factor in the learning process.

Based on students' improvement at the end of each trial, it was evident that all the studied apps included different elements that were relevant and contributed to the success of their learning process.

Motivation is the fourth element to analyze. This topic is the most relevant because it raises students' self-esteem. Given that, apps should provide, as mentioned before, relaxed atmospheres and topics students recognize in their native language. Refat et al (2020), established in the research that when songs and images are used for giving instructions, they are great stimuli that generate intrinsic motivation.

Also, it is mentioned by Yang (2012) that surveys should be included to learn about students' attitudes and

feelings towards the apps. Refat et al (2020), mentioned that self-evaluation is important in the learning process and that it brings new elements each time, therefore it is needed to be done as consistently as possible.

However, teachers also need to be charismatic and promote a good classroom environment. Chester et al. (2016) mentioned that there are different kinds of questionnaires that help to recognize the analysis, attention, relevance, confidence, and satisfaction of users regarding the learning materials and activities provided from teachers, but which are also relevant and significant to students.

Özütürk and Hürsen (2014) guided by Gardner's theory (1988), identified two types of motivation: instrumental and integrative. The first one is described as the desire to learn a second language but moved by external factors like getting a certificate or passing an exam. In fact, relating this to Dörnyei's theory (2011), it can be said that it is closely related to extrinsic motivation.

Likewise, the same happens with integrative motivation in which people want to learn a second language, however, with the aim of interacting with other cultures that speak the target language, which in Dörnyei's theory (2011) is intrinsic motivation. These two types of motivation are more related to second language learning than the ones described in the theoretical framework, but their meaning and purpose is the same: to awaken learners' interest.

Time is another element used to measure students' attitudes and level of commitment or motivation during the lessons because it uncovers feelings towards learning the language. For example, in Hidayati and Diana's research (2019), the average time their sample population spent playing games and doing activities was ranked from 11 to 57 minutes every day. It concluded that commonly, people with high motivation spend less time learning English than their counterparts who are disinterested and unmotivated.

In this regard, Baby (2019) added that the results of his investigation established that when students' motivation is high, the M-Learning application loses impact, whereas it is very effective among low achievers. In the second group of analyzed documents, five of these were considered. The first two documents were developed in 2012, when the involvement of Educational Technologies and M-Learning apps started to be named in the research matter. For that reason, Tayebinik and Puteh (2012); and Tayebbeh and Amir

(2012), both developed documentary research in which the characteristics and importance of M-Learning were identified, and became a useful element in order to select or organize the most current relatable apps.

The first conclusion of these studies is that, considering today's diversity of digital technologies, it has provided new elements to long distance education to educators in the teaching and learning processes. In the past, the tools which mobile devices could offer to people, in terms of education, were very little. As a result, mobile-based language learning apps needed to invest in better developed speaking and listening activities, because message services with audio and graphic content were not improving the skills of language learners.

According to these studies, despite all the obstacles, students' M-Learning needed to grow exponentially to provide a better environment for language learning. Thus, analyzing its impact on every skill, which were similar points encountered in both investigations.

Learning vocabulary is more efficient and effective by sending SMS or Pictionary activities, however, listening comprehension with multimedia activities and sounds, followed by a listening comprehension quiz, grammar with multiple choice activities, fill in the blanks and true or false questions, require various kinds of applications in order to enhance and complete the prospective goals.

Reading would be improved if texts were accompanied by a native speaker narrator who would aid with pronunciation as well as teach students the correct way to read and announce texts. It is recommended that this be utilized in social based activities, where repetition gives the possibility to compare their voices with the accurate models. Finally, these aspects were important to newer researchers since they gave a map route to M-learning investigations in academic environments and also set an objective in the study of motivation as a goal when implementing this new methodology and the benefits it could have on students of EFL.

Liu and He (2015) continued with the identification of important elements each skill required. They used eight online resources as experimental tools: Crazy English, New Concept English, Speaking English fluently, Learn ABC, Tuoci, Youdao, Huijiang English, and China Daily. All of them were considered as effective to motivate and to promote self-regulated cycles of learning and had a positive impact on students. Rivera (2018) also worked

on the development of motivation to learn English as a second language with M-Learning. In his study, he used four instruments to collect data: a field diary, an online forum, a survey, and students' artifacts.

He concluded that it is also important to use collaborative work to incite motivation because it allows students to learn more language skills during problem-solving activities and instills motivation thanks to the teacher and group's support. However, the feedback made by teachers facilitates interaction between the teacher and the student, and caught the attention of students motivating them to continue with the process.

The last thesis considered in this study was written by Ardila (2020) who used the M-Learning apps and web pages with the aim of developing her research investigation, but in this case, they were meant to learn French as a foreign language. The study was based on the use of Point du FLE, Laits, Francais facile, Educaplay, and Kahoot.

Those tools were key to increase motivation and helped to develop a certain level of independence and active work towards knowledge thanks to the interaction, exchange of experiences, communication and socialization that was used. Not only that, there are characteristics of the actionelle approach, where the involvement of the cultural element was required. Finally, the last group of documents includes book chapters. Five investigations were identified: the first one by Zou and Li (2015), in which the main goal was to examine the utility and development of mobile applications for learning English as a foreign language and the impact they had in terms of students' motivation. It is relevant to mention some positive details obtained from the instruments applied to participants and the authors' conclusions which are pertinent to the present investigation.

The questionnaires' answers indicated that most of the students were motivated while practicing listening skills inside and outside the class in BBC, TED, and VOA apps. To indicate the effectiveness of the apps combined with students' motivation, they used it multiple times during the day. Speaking tasks were completed by students who mentioned that QQ and WeChat helped them to improve their pronunciation, and also made them feel comfortable to communicate in class through forum apps, like WeChat. It is also mentioned that the class forum app was a good channel for English practice.

The second investigation, by Jin and Zhirui (2017) mentioned the emergence of various mobile communication technologies, specially, M- Learning apps, and their role in the teaching process. Therefore, like the previous one, they analyzed only the WeChat app. These researchers went in depth even further and mentioned that thanks to the benefit of the interaction with ubiquitous learning, photos, videos, and voice notes messages, WeChat had a combination of interesting content, reinforcement of interactive learning, public and private communication spaces, and even a test space where teachers could control students' goals with less stress.

Considering this, it is viable to affirm that mobile applications, as WeChat, also give learners the opportunity to achieve their personal goals with the guidance of a teacher or a tutor given that they have the possibility to control, not just the improvement of each student, but also courses' topics and activities, creating the chance to develop a full English program based on this app.

The third investigation, led by Aysu (2020), involved the use of a real context linked to meaningful activities to motivate students in their own learning style. The app used to develop this idea was WeChat. It gave important

results in relation to vocabulary learning in terms of time in contrast to traditional practices since it not only provided students with interactive spaces, but also with frequent use and mobility, it improved students' vocabulary learning process. Finally, these aspects validate its implementation in the language learning process. The only two bad reviews related to this app were reported by Zhou and Li (2015). Their sample population mentioned that regarding the reading tasks, they preferred to do them on paper because they felt more comfortable. Aysu (2020) also said that his sample required more time to adapt to the app in order to learn vocabulary since in the implementation of the meeting chat, the experimental group of students needed a more prolonged period of time to show some progress.

After analyzing 25 documents from countries like China, Turkey, Iran, Malaysia, and Colombia, it is possible to affirm that they found positive and negative elements about the effect of M-Learning in fostering motivation towards learning English as a foreign language, a topic that has been evolving during the time.

At the beginning of the 2010's, the main subject of investigation was focused on giving an answer to how apps should work and its implementation in terms



of applicability. Factors such as teacher's guidance, learning indoors or outdoors, as an individual or collaboratively, were also important aspects to first guiding students' interest into the language learning process.

Later, the focus was on the needs and elements that still were not developed, but should be included in the apps, elements such as reading activities, listening comprehension, speaking tasks, etc., which were not invented and applied before for educational purposes. Another point to consider was the implementation of apps in specific contexts that allowed students to improve all the skills or some of them depending on the course content and teacher's planner.

Nevertheless, M- Learning cannot be seen as a perfect teaching-learning resource because there are social, political, financial, and personal aspects that need to be considered when implementing it in different contexts. For example, according to Kuimova et al. (2018) connectivity in rural areas could be a problem as the purpose is to use mobile apps everywhere hence if there is lack of mobile technology or internet connection in every classroom then it has not fulfilled its intended purposes.

Hidayati and Diana (2019) affirmed that when students' English level is high, M-Learning stops being relevant and the motivational factor loses effect since, if not used right, students may get involved in their social media and it may become a distraction rather than a support of the learning process. That's why maintaining your students' attention is important by choosing engaging and interactive apps. This study also established that teachers are no longer the only learning source for students because they already know how to search for information regarding learning another language.

To sum up, some investigations tended to teach the whole class through M-Learning, making it a new learning methodology, and not only a resource in the educational process, with the aim of fostering students' motivation to learn English.

## CONCLUSIONS

It is important to mention that one of the pillars and the most important factors in the teaching process when learning English as a foreign language is motivation. Learning a foreign language implies facing diverse challenges and obstacles that may discourage and hinder students' progress. As a result, they may give

up trying to improve, and unfortunately, as mentioned in this documentary process, the lack of interest may delay the educational experience.

With the aim of giving answers to the research question built into this investigation, it is possible to conclude that, effectively, one of the most interesting and functional strategies to foster students' motivation is getting closer to students' interest by utilizing what they know and master as professionals, which is technology. Therefore, the implementation of M-Learning as an educational technology resource took up a relevant role in the teaching process. Today, M-Learning is a well-known type of education (learning) used in English courses, inside or outside a classroom, and it could make a huge improvement on students' performance and their language skills, if it is well implemented and guided. This element arose due to the lack of students' motivation in EFL, but the time and evolution of educational technologies allowed students to feel more comfortable studying in this way.

Some of those elements included in this type of learning are problem-solving activities, online-discussion tasks, interaction, and creation of relationships with people in any place around the world according to the context needed, interaction with ubiquitous learning, photos, videos, voice notes messages, 3D reality and even a personal space of interaction between teachers and students, where the feedback possibility is available.

WeChat, Kahoot and Duolingo were identified as the most popular M-Learning apps when learning English. The first one is recognized because it allows interaction in the target language with other people in real time. The second one gives the possibility to take tests individually or in groups enjoying the questionnaire, and the third one allows learners to enhance their grammar and vocabulary. Other apps like WhatsApp, Multitran, Google Translate, Taplingua or Formative are used by students, and it was shown that each one has its own benefits, so they should be analyzed to choose the one that suits students' needs.

Additionally, each M-Learning app has its own strengths when talking about skills, and this is the reason why, it is needed to select and test them to define the app that it is going to be used, or if possible, allow students to decide which one they feels more comfortable working with or they could also rotate their usage of the applications. Any possibility is validated. The most important thing is that the learning process is centered on learners which in turn increases the level of interest and motivation.

Although teachers are being called to start using this type of methodology, it was noticed that some of them are resistant to this new teaching approach, but it is important to start thinking about students' needs in terms of learning English as a foreign language; a step a teacher needs to take. If they do not take that step, they are running the risk of losing students' interest and motivation.

M-Learning does improve motivation when learning English, but it is not one hundred percent effective. Teacher's guidance is essential in order to solve issues that the app is not capable of. These issues, in most cases, are related to grammar, but it is also needed to be used as in flipped learning, for self-improvement, giving each individual the capacity and capability to advance in their own possibilities, always with the help or interaction of the other students. However, it could become a double-edged sword if students already have a high English level or if the Mobile app explains content very well, so teachers will not be needed.

With university students at an intermediate level, interaction among them could help solve some questions, along with having different points of view which generates external motivation. This then also in consequence means the inclusion of internal motivation since it became collaborative work in which there was an external reward, but for students the possibility to explain, recognize and understand their peers' point of view, help them to improve on a whole in the educational process despite the external recompense.

The process where students change from their traditional English class to M-Learning requires time to adapt and the improvement is not effective immediately. Results showed that the experimental groups, when compared to control groups, started with low results, but after two or three weeks of daily practice, their process was more significant, and results were better than in the other group.

However, there is another factor that needs highlighting, and that is the number of M-Learning apps that exist nowadays. Although it is believed that there are excellent apps that should be used in the classroom, the important aspect is ensuring that students are motivated with or without the use of M-Learning apps. This then presents the challenge of trying out existing apps and sending suggestions to the owners to improve their effectiveness.

Without a doubt, designing new apps is an excellent idea, only if researchers accept the challenge of creating a new app that encompasses all the necessary language learning activities and motivates learners. For that reason, there is no need to design something only to be able to mention that an app was created and in turn it sacrifices students' motivation. That is the reason why mobile apps are not currently sufficient to be implemented in every educational context because it is important to consider each students' personal aspects. Hence, sometimes it is better to work with the ones that have already been tested or try with new apps that blow students' minds and engage them in the learning process.

To the present research project, it is essential to encourage new researchers to start, and even, continue investigating into this subject because of its importance, and the constant evolution, not just in terms of technology, but also in the educational and new methodological practices.

Finally, even though this was not practical research, this project was born with the idea of creating an interactive mobile app to be used in language learning with the purpose of knowing if there was a significant change in students' motivation. Nevertheless, as there are thousands of learning apps, the research published in the last decade could shed light on the necessary aspects to choose and use the most effective ones to increase students' motivation and impact their learning process positively.

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