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Dominar el pasado simple y el participio pasado de los verbos irregulares en inglés es muchas veces un desafío para los estudiantes de segundo idioma debido al cambio morfológico de la raíz del verbo. Por lo tanto, el propósito perseguido en este estudio fue explorar hasta qué punto las aplicaciones móviles podrían ser una herramienta de apoyo en la adquisición de las formas del participio pasadas y pasadas de un número seleccionado de verbos irregulares. Los participantes del estudio fueron un grupo de control de 6 estudiantes de undécimo grado y un grupo experimental de 12 estudiantes de décimo grado que se inscribieron en un colegio público vespertino con entre diecisiete y veintidós años de edad. Se utilizaron cuatro instrumentos en la recopilación de datos: dos cuestionarios, una pre- y post-prueba y observaciones activas. Las intervenciones consistieron en utilizar 3 aplicaciones móviles diferentes para que los estudiantes practicasen un total de 49 verbos irregulares. Los resultados mostraron que, a través del uso de las aplicaciones móviles de destino como una herramienta complementaria, la motivación de los estudiantes hacia el aprendizaje del pasado y el participio pasado de los verbos irregulares en inglés mejoró enormemente; además se promovió el aprendizaje cooperativo, mejoró la

percepción correcta de la pronunciación, ayudó a los estudiantes a aprender los verbos, y aumentó el compromiso y el entusiasmo de los y las estudiantes.

Palabras claves: Simple past and simple past participle, irregular verbs, MALL, CALL.

Mastering the simple past and past participle of irregular verbs in English presents itself as a challenge for Second/Foreign Language Learners because of the complexity in the morphological change of the verb root. Previous research has shown that learning such features of the English language is not only difficult for L2 learners but also for L1 learners, and generalizations and/or overgeneralizations are common. Given these facts, the purpose pursued in this study was to explore the extent to which mobile applications could support learners' acquisition of past and past participle forms of a selected number of irregular verbs. The participants of the study were a control group of 6 eleventh graders and an experimental group of 12 tenth graders who were enrolled in a public evening high school; their ages ranged between seventeen and twenty-two. Four instruments were used to collect the data: two questionnaires, a pre- and posttest, and active observations. The interventions consisted of applying 3 different mobile applications for students to practice a total of 49 irregular verbs. The results showed that, through the use of the target mobile applications as a complementary tool, students' motivation towards the learning of the past and past participle of irregular verbs in English greatly improved; it promoted cooperative learning, improved correct pronunciation awareness, helped students to learn the target verbs, and increased engagement and enthusiasm. Though the use of mobile applications to learn the past and the past participle of verbs was found to be plainly positive, further investigation is needed to determine the extent to which their use might evidence more

quantitatively salient improvement over a more extended period, as restrictions in time as well as in the number of students who took part in this study were faced in this study.

Key words: Simple past and simple past participle, irregular verbs, MALL, CALL.

Abstract

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Marco Tulio Salazar, site Central Elementary School, Atenas.

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1 Objectives

1.1 General objective

To evaluate the extent to which the use of Smart Device Applications (SDA) eases students' learning of the simple past and past participle of irregular verbs in English. A case study at Colegio Nacional Marco Tulio Salazar, site Central Elementary School, Atenas.

1.2 Specific objectives

- I. To identify the most useful Smart Device Applications which could be applied to learn the simple past and past participle of irregular verbs in English.
- II. To implement the use of Smart Device Applications designed specifically to foster the learning of the simple past and past participle of irregular English verbs.
- III. To test the success in the use of Smart Device Applications in the learning of the simple past and past participle of irregular verbs in English in a group of tenth-grade high school learners at Colegio Nacional Marco Tulio Salazar in Atenas.

2 Introduction

The rapid growth and expansion of technology has led to new perspectives on teaching methods used in the educational system worldwide. Nowadays, Technology-Based Instructions are often used to facilitate the learning process of English as a Foreign Language (EFL) since they successfully lead learners to achieve better understanding of the target language (Altun, 2015). New approaches like Computer Assisted Language Teaching and Mobile Assisted Language Teaching (henceforth, CALL) have emerged in language learning-teaching contexts to help students more easily and successfully develop their language skills and to promote self-centered independent learning. For instance, Hubbard (2009) suggests that students involved in CALL environments improve their learning strategies and increase their learning autonomy. In the same way, learning English anytime, anywhere with the use of mobile devices makes students take responsibility and control over their own learning (Bezircilioğlu, 2016). MALL, which emerged from CALL (Kim & Kwon, 2012) is said to have “evolved to support students’ language learning with the increased use of mobile technologies such as mobile phones, mobile music players, PDAs and mobile Smartphone” (Alepis & Virvou, 2014; p.11). Although the use of devices or mobile applications grants contemporary learners to study a language through its use, they do not take on the role of the teacher; instead, they support teaching practices. Moreover, MALL assists language learning not only in the classroom but also outside the classroom. Therefore, students have more access to language learning materials; it provides students with practice any time anywhere and helps them to communicate easily.

Previous studies conducted in other countries have shown that by implementing the use of mobile applications to learn a target content, students get the topic easier than the ones who have no access to the mobile applications. The studies found show that implementing this method is

better than using the traditional way of teaching (i.e., those strategies where memorization is mostly implied, and most exercises are just grammar based; a non-traditional methodology refers to more active and engaging participation of the students through the use of modern technology).

Since today we are bombarded by technology and its access is easier than ever, this study tested the usability and effectiveness of technology to assist the learning of a particular feature in English: the simple past and past participle of verbs. Specifically, this study centered on the use of creative applications for smart devices as a supplementary tool to help English learners to efficiently and quickly acquire the simple past and past participle of irregular verbs.

The learning of irregular verbs is challenging for most English learners, as it is difficult to aid students in the quest to learn these language bits (Larsen-Freeman, 2010). It is difficult to master and to teach the past tense and past participle especially when it comes to irregular verbs precisely due to their irregularity. In fact, Bybee and Slobin (1982) state that “evidence from historical change suggests rather that speakers function with surface true generalizations, and must learn irregularities by rote” (p.266). Namely, irregular-verb learning by EFL learners takes place via rote memorization. This study took advantage of current technological advancements to make the learning of these verbs more meaningful and everlasting for a group of tenth graders. Furthermore, the purpose of this study was to understand the extent to which mobile applications for smart devices such as smartphones and tablets can be used to ease the teaching and learning of English as well as to explore the potential benefits of these devices as a teaching and learning tool, in general.

Herein, it is important to account for what traditional and non-traditional stand for. By a traditional approach, it is meant to point out those strategies where memorization is mostly

implied, and most exercises are just grammar based. Conversely, a non-traditional methodology stands for a more active and engaging participation of the students through the use of modern technology; namely, smart devices as a means of a didactic tool. The drive to conduct this study arose from the necessity of employing a non-traditional method to help students learn what has been regarded as a challenging feature of the English language, namely, the simple past and past participle forms of irregular verbs.

The goal in this study was to provide a new tool to learn the simple past and past participle of English irregular verbs by using a more engaging method by means of games played on a smart device. The study is relevant, as no research has been found in Costa Rica related to the use of such method to help students gain knowledge of the simple past and past participle of irregular verbs in English.

It is salient to point out that the applications that were used did not include all the irregular verbs in the English language; that is, the lists are finite, as all the selected applications contain the most commonly used verbs in the English language. In order to determine what the most useful applications were to carry out the study, the researchers downloaded approximately ten applications from Google Play Store, all of which were later on tested in their content, their verb lists, and the way the verbs were presented. Finally, researches agreed on three applications: *Ballon Game, IV*, and *Irregular verbs* (a full description and pictures of these apps is presented in Appendix 5).

The three different mobile applications for smart devices used are available at the Google Play Store on any portable device and run on Android operating system devices. The particularity of these mobile applications is that they were games whose aim was for users to learn and

practice not only the form but also the pronunciation of the simple past and past participle of irregular verbs in English. Additionally, the selected applications provided feedback when students made mistakes in selecting the form of the simple past and past participle of irregular verbs. The verbs are further presented with illustrations which were likely to help learners to remember not just a word; students would most likely be able to create a mental representation of the verbs learned.

Another reason to use a different tool to help students learn the simple past and past participle of English irregular verbs is that, based on the experience of the main teacher (one of the researchers), students from Colegio Nacional Marco Tulio Salazar have shown very low acquisition level in the use of these verbs. Hence, the urge to make use of a different source that would help them in the acquisition of such verbs. By the use of mobile applications to teach simple past and past participle verbs, the researchers employed an innovative and technological tool that has never been used at this school nor in any other school in Costa Rica.

As main findings, the experimental group, as well the control group, unquestionably improved their grades by the end of the study. Therefore, the use of mobile applications as a complementary tool to aid students with the acquisition of past tense and past participle verb forms was clearly beneficial. Second, the use of mobile applications as a didactic tool was appealing for all participating students; as evidenced through the class observations, students got engaged with the mobile applications as soon as they came into contact with them. Furthermore, the results are consistent with the theory reported in this study wherein it is argued that the use of MALL or mobile applications to learn English has a positive impact on students' learning. Finally, the applications were not only useful in improving the comprehension of vocabulary, but their use also helped students to learn the correct pronunciation of the verbs learned.

3 Theoretical Framework

For a foreign language teacher, finding the best method to teach might become a challenging task, and this becomes even more challenging when it comes to teaching a specific language skill, such as the case in the teaching and learning of the simple past and past participle of irregular verbs in English. This section describes the structure and use of the past tense and the past participle of irregular verbs in English, and it reviews the use of technology to support second language learning, especially the target grammatical component; i.e., the past tense and the past participle of irregular verbs.

Furthermore, as the focus of the study is on learning through technology, this section reviews theories and approaches such as Computer Assisted Language Learning (CALL) and Mobile Assisted Language Learning (MALL), pointing out their foremost advantages and disadvantages in English Foreign Language contexts.

3.1 The English Past Tense: Its Syntactic and Morphological Structure

Grammar is a main skill in the learning of a foreign language, as it refers to “the way words are put together to make correct sentences” (Ur, 1996, p.75). Grammar involves the study of structures such as tenses, comparisons, clauses, among others, which are used in creating sentences or phrases to convey meaning. Quirk, Greenbaum, Leech, and Svartvik (1985) point out that,

We shall be using grammar to include both SYNTAX and the aspect of MORPHOLOGY (the internal structure of words) that deals with inflections (or ACCIDENCE). The fact that the past tense of *buy* is *bought* (INFLECTION) and the fact that the interrogative form of *he bought it* is *Did he buy it?* (syntax) are therefore both equally the province of

grammar (p.12).

This study focuses on the Learning of specific verb tenses in English, and hence, we deem it necessary to define *tense* herein. Zhuang (2010) defines it as a:

Grammaticalized expression of location in time, usually with reference to the present moment that something occurred rather than how long it occurred for, which is realized by verb inflection, while aspect is concerned with “the internal temporal constituency of the one situation”, i.e., the duration of the activity indicated by the verb (p.2).

In other words, *tense* refers to a specific moment in time (past, present or future), and it is realized morphologically in the conjugation given to a verb.

3.2 Morphological formation of the English past tense

According to Quirk et al. (1985), the past tense is comprised of two features of meaning, “The event/state must have taken place in the past, with a gap between its completion and the present moment. The speaker or writer must have in mind a definite time at which the event/state took place” (p. 183). Therefore, speakers use the simple past tense to talk about actions or events that occurred in the past and are no longer in action.

English irregular verbs do not take an *ed-* inflection, as occurs with regular verbs; instead, irregular verbs contain a vowel variation that differs from the stem verb. Furthermore, irregular verbs very often change completely when used in its past form (Quirk et al., 1985). There are some morphological phenomena such as internal change, suppletion, and reduplication that can affect the word formation of the irregular verbs in past tense and past participle. The internal change is the process that substitutes one nonmorphemic segment for another to mark a grammatical contrast as in the case of *sing/sang-sung*, *drive/drove*, and *sink/sank-sunk*.

Suppletion, in contrast, replaces a morpheme with an entirely different morpheme in order to indicate a grammatical contrast. Some examples of suppletion are the verbs *go/went* and *be/was-were*. Finally, reduplication marks a grammatical or semantic contrast by repeating all or part of the base to which it applies, as in the cases of *drive/driven*, *got/gotten* for its past participle form correspondingly (O'Grady, 2010).

3.3 The Acquisition of the Simple Past Tense in English L1 Acquisition (FLA)

In this section, the acquisition of the past tense in FLA is described. It is important to include here how the past tense occurs in FLA because it serves as a contrast with the learning of the English past tense by Foreign/Second Language Learners.

Clark (2009) states that monolingual English speaking children go through three different stages when acquiring the past tense of both regular and irregular verbs. During the first stage, children use correct irregular verb forms, but there is no evidence that they are aware that the production of irregular verbs is linked to the past tense as a grammatical feature *per se* (i.e., children presumably memorize chunks of information but are unaware of the morphological rules involved in the process). During the second stage, children start using the –ed suffix on regular verbs to express past actions; however, its use is not always constant. At this stage, children not only use -ed suffixes on regular verbs, but they also use it with irregular verbs (e.g., *goed*; *eated*). In other words, there is a generalization of the –ed suffixes onto irregular verbs when expressing past meanings. During the final stage, monolingual English Speaking children do evidence acquisition of regular and irregular morphology of verb tenses in that they produce regular and irregular morphological markings correctly (e.g., *went*, *saw*, *talked*, *walked*).

On this fact, Marcus, Pinker, Ullman, Hollander, Rosen, Xu, and Clahsen (1992) state that “children have an ability to generate the past from the stem, and if the specifics of English tense marking take time to learn, then before they are learned, correct irregular pasts could be produced” (p.100). Just like Clark (2009), they point out that mastery of the past tense in English as a First Language requires time; therefore, to start producing correct irregular past verb forms, children produce temporary irregularities that will then lead them to use correct forms. Once they have internalized the difference between regular and irregular verbs, they are able to distinguish and use them accurately.

Interestingly, during the acquisition process of the past tense, children’s incorrect forms of irregular verbs are consistent, and correction appears to be unsuccessful. In fact, for example, Behney, Gass, and Plonsky (2013) note that despite an adult’s correction of the past tense, a child still continues producing the past tense by adding –ed to the stem verb of irregular verbs. For example, “I fell down” starts to be used as “I falled down” (Honig, Fitzgerald, Brophy-Herb 2001, p.389); this phenomenon is referred to as *overgeneralization*.

3.4 The Acquisition of the Simple Past Tense Form in English by L2 Learners

Previous research has drawn conclusions to determine how First and Second Language Acquisition differ from one another; indeed, both similarities and differences have been found. One of the greatest differences is the settings in which a first and a second language are acquired. According to Hulya (2009), whereas “it is possible to learn a second language in various contexts, first language acquisition takes place only in a natural context and in the social group the child is growing up and where the child gets L1 input only” (p.160).

Krashen's Monitor Model Theory makes a significant contribution regarding how a second language is acquired after the *critical period*¹. Although his theory is not explicitly related to the acquisition of the past tense, it does contribute to understanding the process of acquiring competence in a language that indeed includes mastering of the past tense; hence, we describe it next.

Krashen (1982) distinguishes between two processes: *acquisition* and *learning*. He states that "language acquisition is a subconscious process; language acquirers are not usually aware of the fact that they are acquiring language, but are only aware of the fact that they are using the language for communication" (p.10). Acquisition is a process that does not involve direct instruction; children simply learn the language by being exposed to it. In contrast, language learning refers to "conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them. In non-technical terms, learning is "knowing about a language, known to most people as 'grammar', or 'rules'" (p.10). Thus, learning is a more conscious process that involves the learning of rules.

In addition, Don (2014) claims that to learn the past tense forms of irregular verbs in English implies two stages. Firstly, verbs have to be stored in memory in order to recall them later. Secondly, assuming that some past tense irregular verbs derived from rules, some verbs follow a similar pattern in their past tense equivalents. Don specifies that:

¹ "The critical period hypothesis is a casual explanation for the differential success in acquisition of a second language by younger and older learners. The explanation is casual because the bulk of the variance in achievement as a function of age is attributed to the maturational changes in the brain that alter the possibility of successful acquisition" (Bialystok & Hakuta, 1999, p. 162).

some verbs display a change in the stem vowel, which is copied in the past participle (*fling, flung, flung*; likewise *bind*); some verbs follow a vowel-change in the past tense and yet another vowel-change in the past participle (*drink, drank, drunk*; likewise *sing, ring, etc.*); there are verbs with vowel shortening and suffix -t (*keep, kept, kept*; likewise *creep, leap, sleep, weep, etc.*); yet others have identical forms in present, past and past participle (*bit, bit, bit*; likewise *cut, hurt, let, put, etc.*) (p.14)

In applying these rules to learn the past tense and past participle of irregular verbs, it is clear that it is a conscious process that focuses more on learning the form than on actually acquiring the past tense. In Krashen's terms, learning the English past tenses is a learning process which involves knowing the rules that govern a given language (in this case, the rules regarding verb formation in both regular and irregular verbs).

3.5 The English Past Participle: Syntactic and Morphological Structure

Jain, Bhatia and Sheikh (2008) state that "a past participle represents a completed action or state of the thing mentioned"; it also "represents an action that has been completed at some past time" (Jain et al., 2008, p.64). Furthermore, according to the Merriam-Webster Online dictionary, the past participle is a grammatical aspect defined as "the form of the verb that is used with "have" in perfect tenses and with "be" in passive constructions."

Irregular verbs follow a different formation in the past and in the participle; due to this, they are difficult to learn, just like the irregular past tense. "First of all, the past tense and the past participle of irregular verbs are not formed by adding an ED-ending to the infinitive. Second, the past tense and the past participle of many irregular verbs are two completely different words" (Geffner, 2010, p.70). Thus, the form of participle verbs is rather different from their corresponding infinitive verb forms and "there are no rules to help us determine the past tense

and past participle of irregular verbs” (Geffner, 2010, p. 70). In addition, irregular verbs are “the most-used verbs in the English language. Learning them involves practice and memorization” (Schneider, 2010, p.133). Therefore, if no rules exist to learn the participle of irregular verbs, memorization is what must take place.

For the purpose of this study, participle verbs are used in terms of Narayanaswamy (2004), namely, “a tense made up of the auxiliary ‘have’ plus the past participle of the lexical verb: ‘has gone’, ‘have gone’, ‘had gone’” (395).

3.6 The learning of the English Past Participle

Regarding the learning of the past participle, the information on how it is acquired by second language learners is very limited. As for FLA, some research on the acquisition of the English past participle reveal that this verb form tends to appear late in childhood in the case of L1 learners. Redmond (2003), for instance, states that,

The acquisition of English past participle forms by typically developing children appears to be a protracted process, with documented evidence suggesting that commission errors persist into early adolescence with some verbs in some contexts. Omissions of participle affixes in obligatory contexts by preschool children have also been noted, but may represent an uncommon error. The results of one study suggest that using passive sentence targets during elicited production tasks may be more successful than using other sentence types. (p.1098)

As Redmond (2003) suggests, in many cases children avoid the use of complex structures in which the past participle is used, since they tend to commit omission mistakes. Likewise, in early adolescence, students experience difficulties in the use of the past participle and, in many cases, prefer the use of simpler structures such as passive sentences. Finally, Dulay and Burt (as

cited in Hasbún, 1992) state that first language acquisition follows a universal pattern; that is, the L1 is expected to have a predictable order.

3.7 The past participle acquisition by L2 learners.

In a study carried out in Costa Rica, Escalante (as cited in Hasbún, 1992) found, that EFL learners followed a very similar order to that by the English L1 learners. In fact, in a study conducted with EFL university students, Hasbún (1992) found that the acquisition of the past participle in English by L2 learners occurred late in comparison to other features of the English language; that is, because of its complexity, acquisition of the past participle in English takes long and will only take place if students have previously memorized the past participle of verbs to be eventually used in full sentences. Hasbún further argues that for the acquisition of the past participle to occur, learners need to be exposed to a lot of comprehensible input; EFL teachers should take this pattern into account when teaching the past participle to students. In short, the acquisition of the past participle is a complex feature to learn for second/foreign language learners, just like it is for first language learners. This similarity is also pointed out in studies such as Krashen, Sferlazza, Feldman, and Fathman (1976), Fathman (1975), Bailey, Madden, and Krashen (1974).

3.8 Technology-Based Language Learning

Since this study focuses on using mobile applications to facilitate the learning of *past tenses of irregular verbs*, it is essential to describe key concepts related to computer-assisted language learning; this is done in the following section.

3.8.1 Computer Assisted Language Learning (CALL).

Even though this study involves the use of MALL (Mobile Assisted Language Learning) as a complementary tool to help the learning process of English, it is necessary to overview what CALL is, since MALL, which is the main focus of this study, derives from CALL.

According to Levy (1997), Computer Assisted Language Learning (CALL) is an approach that traces its origins to the 1960's and 70's with drill and practice programs for applications used in the virtual learning environment and distant learning. Its main feature is that it incorporates the use of computer applications to assist language learning. Levy (1997) states that CALL has two functions: it has been used to provide materials to reinforce language skills, and it focuses on multimedia tools for English language learning.

The incorporation of innovative practices in language learning has also required the use of technological tools in the learning process of a Foreign Language. In fact, according to Levy (1997), CALL is "the search for and study of applications of the computer in language teaching and learning" (p. 1). CALL is a contemporary and interactive approach to learn a foreign language by using computers to support the teaching/learning process specifically in the topics to be learned, argues Levy. Moreover, Bhatti (2013) points out that the implementation of CALL to assist language learning has proven to have very positive outcomes. Additionally, Davies (2000) states that CALL is a teaching and learning approach in which computers are used to support, reinforce, and assess the materials to be learned. Therefore, computers are used by teachers as a tool to complement traditional language teaching.

3.8.2 Mobile Assisted Language Learning (MALL).

Emerging technologies have shifted conventional ways of teaching and learning a new language. Today, technology allows both teachers and students to go beyond the limits of a physical space, and Mobile Learning surpasses those physical barriers. In accordance with Alepis and Virvou (2014), during the last decade, Mobile Assisted Language Learning has become widely known in the field of teaching to support language learning. Kim and Kwon (2012) note that “the term mobile-assisted language learning (MALL) was first coined by Chinnery in 2006” (p.34); that is, MALL is of a relatively new use in the field of language learning. Furthermore, as stated above, MALL emerged from CALL (Kim & Kwon, 2012).

MALL, likewise, is said to have “evolved to support students’ language learning with the increased use of mobile technologies such as mobile phones, mobile music players, PDAs and mobile Smartphone” (Alepis & Virvou, 2014; p.11). Thus, mobile learning grants contemporary learners to study a language through the use of mobile devices or mobile applications, which in Chinnery’s (2006) terms are “instructional tools” (Chinnery, 2006, para. 5); they do not take on the role of the teacher; instead, they support teaching practices.

Furthermore, as pointed out by Valarmathi (2011), “Mobile Assisted Language Learning (MALL) describes an approach to language learning that is assisted or enhanced through the use of a handheld mobile device. MALL is a subset of both Mobile Learning (mlearning) and Computer-assisted language learning (CALL)” (p.2). In sum, mobile assisted language learning is an approach that incorporates new emerging mobile technologies to support language learning; furthermore, “mobile language learning has primarily focused on three main technologies: MP3 players, PDAs and mobile phones” (Thomas, Reinders, & Warschauer, 2012, p.205). Consequently, mobile assisted language learning is to utilize mobile technology to aid language learning (Miangah & Nezarat, 2012).

Mobile Assisted Language Learning entails the use of mobile smart devices to assist language learning, which not only can take place in a classroom but can also be used any time any place (Miangah & Nezarat, 2012). As reported by AbuSa'aleek (2014), "the employment of mobile technologies differentiates mobile learning from other forms of learning. Therefore, if the learning process happens via or with a mobile device away from traditional learning environments, then it is Mobile Assisted Language Learning" (p.470). Similarly, Alemi, Sarab, and Lari (2012) point out that the "mobile phone, as a new technology, has brought about a new type of language learning called Mobile Assisted Language Learning" (p.100). MALL became popular with the widespread use of mobile devices in the contemporary era.

The emergence of MALL has furthered language learning in different ways; for example, Kim and Kwon (2012) have noted some benefits of mobile assisted language learning; namely,

First, MALL enables students to more easily and more promptly access language learning materials and communicate with people at any time, from anywhere. Second, the nature of digital technology facilitates students' participation in both collaborative and individualized language learning activities synchronously and/or asynchronously allowing rapid development of speaking, listening, reading, and writing, skills. Third, mobile technology provides various resources and tools for language learning that encourage learners to be more motivated, autonomous, situated (site-specific), and socially interactive (p.35).

That is, Mobile Assisted Language Learning benefits language learners, for it is a tool that can be used to improve listening, writing, reading, and speaking skills at any time and place. Moreover, it promotes learners' willingness towards language learning as well as a more active participation in their own learning process.

3.9 The Use of Technology in Foreign Language Teaching

Learning used to be understood as the interaction of the student, the curriculum, and the teacher; the main teaching practices depended on this concept alone. For instance, according to Plomp, Brummelhuis, and Rapmund (as cited in McGhee and Kozma, 2001), learning is described as “a process in which four components interact: (1) the teacher, (2) the student, (3) curriculum content and goals, and (4) instructional materials and infrastructure” (para. 2). However, as McGhee and Kozma (2001) argue, today information and communication technologies play an important role in the learning process.

In accordance with McGhee and Kozma (2001), technology provides “students with tools and information that support their problem solving, communication, collaboration, and knowledge creation (...) and teachers with new tools that can transform instructional roles, curricula, and practices” (para. 2). Therefore, students can use technology to help their learning to construct knowledge that might take place in a collaborative digital context. On the other hand, teachers can make use of the different sources available to assist their teaching practice.

3.9.1 Advantages of technology in Foreign Language Learning.

Lai and Kritsonis (2006) note that technology in Foreign Language Learning presents clear advantages. Technology “provides second language learners more independence from classrooms allowing learners the option of working on their learning material at any time of the day” (Lai & Kritsonis, 2006, para. 3). Thus, technology is unrestricted to neither a specific space nor time; it allows its users to learn at their own pace.

Furthermore, Lee (as cited in Lai & Kritsonis, 2006) states that technological language learning programs can:

provide practices for students through the experiential learning, offer students more the learning motivation, enhance student achievement, increase authentic materials for study, encourage greater interaction between teachers and students and students and peers, emphasize the individual needs, regard independence from a single source of information, and enlarge global understanding (para, 4).

Lai and Kritsonis (2006) also point out that, “computer technology can help second language learners strengthen their linguistic skills, affect their learning attitude, and build their self-instruction strategies and self-confidence” (para, 4). Therefore, technology allows Foreign Language learners to enhance their linguistic skills and develop more positive attitudes towards language learning.

Kukulska-Hulme (2009) states that by using technology, collaborative learning can be promoted. Moreover, “within the classroom, it has been shown that mobile devices, with appropriate software, can be highly effective in supporting small group collaborative learning” (Kukulska-Hulme, 2009, p.160). Overall, collaborative learning can be mediated by the use of technology in order to support the learning of another language.

Nowadays, technology is used as a means to improve and to aid the learning of English as a Foreign/Second Language (American Council on the Teaching of Foreign Languages, n.d). As part of emerging technologies, mobile technology is becoming a very useful tool in the field of language learning; in this regard, “Mobile Assisted Language Learning (MALL) has significantly transformed language teaching and learning” (Tai & Ting, 2011, p.4); its use has shown advantages in language learning. In fact, Thouésny and Bradley (2011) point out two advantages,

one has to do with “flexible Access to learning spaces,” and the other one is related to “promoting synchronous interaction remotely” (p.145).

Regarding flexible access to learning spaces, Thouësny and Bradley (2011) note that mobile learning provides students with the possibility to access language learning at any time. “Mobile technology then could support learning at the right time at the right place, offering great opportunities of learning in the world and linking with the virtual world” (Thouësny & Bradley, 2011, p.145). These researchers also suggest that “mobile technology offers learners free access to acquire linguistic phenomena not only in the present context but across contexts, retrieving and delivering information in everyday life” (Thouësny & Bradley, 2011, p.145). In sum, mobile technology supports the learning of a language by providing access to different information beyond time restrictions.

Another advantage of mobile technology is that it promotes synchronous interaction remotely. Thouësny and Bradley (2011) argue that interaction is a crucial part of language learning, and by using technology “interactions exist between the learner and the technology” (Thouësny & Bradley, 2011, p.146). Additionally, “it offers flexibility to learners in terms of community, autonomy, location, and relationship” (Thouësny & Bradley, 2011, p.146). That is, language learning is no longer bound to a classroom alone; technology has torn down the barriers that restrained language learning to a physical space. Nonetheless, technology shall not replace but complement teachers in the classroom, and it brings about undeniable disadvantages.

3.9.2 Disadvantages of Technology in Language Learning.

Despite the numerous advantages that technology offers to language learning, it also has some limitations and/or disadvantages which shall be pointed out. Lai and Kritsonis (2006) list at

least four shortcomings that might affect the implementation of technology-based teaching in the learning of a Foreign Language. First, its cost; getting access to technological devices and software has an economic requirement that not all educational institutions and students can afford. Second, to use technology, basic knowledge on how to use it is necessary; teachers and students should have previous acquaintance with the employment of technology. Third, technology is imperfect; even though software manages listening, speaking, writing, and reading skills, their functions are limited. Lastly, technology is unable to cope with students' unexpected situations; "second language learners' learning situations are varied and ever-changing. Due to the limitations of computer's artificial intelligence, computer technology is unable to deal with learners' unexpected learning problems and respond to learners' questions immediately as teachers do" (Lai & Kritsonis, 2006, para. 12). In other words, technology might not provide students with immediate solutions to the challenges they face while learning a language. Hence, it shall be a complement rather than a substitution of the language teachers who are able to solve those various challenges. Mobile applications are technological tools which can be used in the teaching and learning of concrete language skills and structures.

3.10 Mobile Applications

Mobile devices are described by Andersen (2013) as "mini-computers that allow the learner to install applications (mini-software) of their choice from the various online app stores" (p.4). Nowadays, with the easy access to the Internet, smart device applications may be downloaded directly to the mobile device and used at any time.

According to Mobile Marketing Association, an *application* is another name for a *computer program*; applications usually run on smart devices. Another definition for mobile

device applications is [...] “software that runs on a mobile device and performs certain tasks for the user of the mobile phone” (2008, p. 1). Based on the definitions given, mobile applications are software that can be downloaded and installed in mobile devices.

The way of teaching in the 21st century is progressively changing into newer innovative ways for both teachers and students. According to Andersen (2013), by the year 2013, there were over 675.000 apps on Google Play and over 700.000 apps in iTunes App Store. Among this great number of existing apps, there is a great quantity aimed at helping EFL students in the process of learning English. It is not surprising then that more and more teachers incorporate trendy technological devices to assist learners in their process of learning a language. According to West (2013),

As mobile phones, tablets, and other connected devices become more prevalent and affordable, wireless technology can dramatically improve learning and bring digital content to students. Students love mobile technology and use it regularly in their personal lives. It therefore is no surprise that young people want to employ mobile devices to make education more engaging and personalize it for their particular needs. (p.2)

Therefore, mobile applications can be functional to help language learners gain knowledge of certain English topics. Besides, as noticed by West (2013), teachers can take advantage of the fact that students like mobile technology to engage them into a personalized learning by using mobile applications to improve English.

4 Review of Literature: Previous Studies on the Use of MALL in EFL Contexts

In this section, some studies related to our research topic and which justify the relevance of our study are reviewed. It is worth stating that the use of MALL in education is a very recent topic; therefore, research in this area is limited. There were no studies found targeted at exploring

the use of mobile applications to learn the simple past and past participle of irregular verbs in English neither nationally nor internationally *per se*. However, some studies that have focused on the use of MALL to assist teaching and language learning are reviewed here.

In Costa Rica, the use of mobile applications in language learning is just emerging; such is the case of the recent incorporation of Duolingo as a complementary tool to learn English. As stated in a recent article by *Presidencia de la República de Costa Rica* (2016), since we are experiencing the technological era, the Costa Rican Ministry of Public Education (MEP) introduced the use of a mobile application known as Duolingo, which is a language learning app that offers courses in different languages. Through this application, English learners are able to progress through a series of lessons that build their language skills step by step.

According to a report from the *Presidencia de la República de Costa Rica* (2016), the use of Duolingo in Costa Rican schools came out as an initiative to take advantage of mobile devices in English lessons. Moreover, Dyer (2016) states that “trainers from the Pittsburgh, Pennsylvania-based company showed more than 300 public and private school teachers from across San José, Heredia, and Cartago how to use the app in their lesson plans during a free training with the Education Ministry” (p.2). It is quite clear that the use of mobile applications in Costa Rican schools is just flourishing, which results in no research conducted so far related to the employment of applications as part of English classes in recent years. Furthermore, according to Dyer (2016), Duolingo was introduced to classrooms as a pilot project that took into account three schools in 2014; by 2015, over 1,500 students were actively using Duolingo. Thus, as stated, the use of this application is not being implemented in all schools across Costa Rica since MEP is still seeking to see what its impact might be as a didactic tool.

Likewise, no studies have been found abroad on the use of mobile applications to learn the simple past and past participle of irregular verbs in English. However, there are some studies in foreign language contexts that have focused on learning other skills in English language learning settings.

In China, in 2015, Professor Qun Wu conducted a study on the effectiveness of a Smartphone application called Word Learning-CET6 to learn 1274 English words. He assessed its effectiveness as a tool in helping English as a Foreign Language college students learn English vocabulary. The researcher used the application to help students learn basic vocabulary. An experimental group and a control group participated in the study. The results concluded that the experimental group significantly improved vocabulary acquisition in comparison to the control group. In sum, the study strongly suggests that the use of an application for smart devices can noticeably boost vocabulary learning.

Similarly, Sandberg, Maris, and De Geus (2011) conducted a study with primary school students in the Netherlands. They worked with three groups of fifth graders: whereas Group 1 took a normal class about zoo animals and their features, Group 2 took lessons and used a mobile application located at a public zoo; Group 3 also took normal classes and used a mobile application, but they were allowed to use the application at home. When comparing the results from the three groups, it was noted that the third group had acquired a significantly higher rate of vocabulary on zoo animals as compared to the other two groups. In conclusion, the use of a mobile application showed to be a successful tool to learn vocabulary.

An additional study was conducted by Başıoğlu and Akdemir in 2010 with sixty (60) Turkish undergraduate students enrolled in an English program in which they had to use digital

flashcards from a mobile application and printed traditional flashcards as a means to learn English vocabulary. The results showed that using a mobile application as a tool to learn vocabulary in English was more effective than the use of the traditional method, just as shown in Qun Wu (2015) and Sandberg et al. (2011). The results reported in these studies coincide; they evidence that the implementation of mobile applications to learn vocabulary in Foreign Language setting is beneficial since it improves its acquisition. Other studies which have evidenced that working with mobile applications has led students to learn vocabulary more easily are Moghaddam and Mazaheri (2017), Murugan, Sai, and Lin (2017), Castañeda, (2016), and Mindog (2016).

Given the level of success reported in the previous studies summarized above, and taking into account multiple possible benefits in using MALL to assist Second/Foreign Language Learning, the main goal of this project was to examine the extent to which mobile applications may ease the teaching and learning of a concrete morphological structure, namely, the simple past tense and past participle of irregular verbs at a public high school in Atenas, context in which it has been evidenced that students struggle to learn this language skill in their English lessons, as will be described in detail in the following section.

5 Methodology

In this section, the research paradigm, context, and participants are described in detail. Furthermore, the characteristics of the instruments designed to collect the data and which served for the analysis on the usability of mobile applications to learn the simple past and the past participle verbs in English are described. Additionally, the measurement of the validity and

reliability of such instruments is included in order to warrant their accuracy. Likewise, a description of the procedures used in the data analysis is presented.

5.1 Research Paradigm

Due to the nature of the study, a Mixed Methods Approach was relied upon to collect and analyze data gathered from the instruments. According to Greene, Caracelly, and Graham (1989), “mixed- method designs are those that include at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words), where neither type of method is inherently linked to any particular inquiry paradigm” (p.256). Even though this study utilized a mixed approach, it is highly quantitative because “the researchers will examine the effects of a treatment given to a selected group” (Newman & Benz, 1998). Furthermore, this study had a quantitative nature given that a pretest, a treatment, and a posttest were used as the main sources of data collection and analysis. Within this approach, “after the pretest measures are taken, the treatment conducted, and posttest measures taken, a statistical analysis reveals findings about the treatment's effects” (Newman & Benz, 1998, p. 19).

This study was also qualitative because observations were carried out; an observation instrument was used to analyze qualitative information. According to Fox (1998), “we can use observation to enhance our understanding of these kinds of interaction, either as stand-alone descriptions or evaluations, or as part of research studies using a range of methods including statistical analysis” (p.1).

5.2 Research Design

This study had a quasi-experimental design. According to William, Shadish, Cook, and Campbell (2002) “quasi-experimental research, by its very nature, lacks randomized assignment, which differs from true experimental research.” The researchers chose which population would receive which treatment, based on the characteristics of both groups. The experimental group, which was a tenth-grade class, had basic knowledge about the target content studied in this project as compared to the control group, which was an eleventh-grade class. These eleventh-graders had previously studied the content in tenth-grade and they additionally reviewed it in eleventh grade. Based on this, the results obtained from the experimental group were more relevant than the ones obtained from the control group, though they served as a comparative measure.

5.3 Context

This study was conducted at Colegio Nacional Marco Tulio Salazar- Atenas, a night school. As stated by MEP, the origins of this program (i.e., night schools of this sort) date back to 2001, when the Costa Rican program "New Educational Opportunities for Youth" was born, expecting to offer one more chance to continue high school for those teenagers who, for a wide variety of circumstances, deserted or never got into a high school. In fact, in 2004 it was launched with approximately 10500 students countrywide (MEP). It used to offer students the opportunity of passing one level in six months or what is the same, two levels in a typical school year. In 2010, after this program underwent some modification, it became an academic-like high school known as Colegio Nacional Marco Tulio Salazar. Students who try to get into this high school must meet a required age which ranges between 15-18. Furthermore, students must have deserted

or must not have studied for at least one year to be accepted in the enrollment process. In this high school, only six subjects (English, Science, Spanish, Social Studies, Mathematics, and Civics.) are taught. One more peculiarity is the fact that the age limit to be studying in this high school is 25 (MEP).

This high school program is hosted at the Main Public School in the Atenas County. It used to have the name of Colegio Virtual (Virtual High School) because initially, it was designed to work with a virtual modality; nonetheless, it later changed its orientation to an academic high school in 2010. This school's modality has a single group per level (i.e., only one ninth- grade, one tenth- grade, one eleventh- grade, and so forth); thus, two different levels were selected to conduct this study, namely, the group of tenth-graders as the experimental group and the group of eleventh- graders as the control group.

This high school uses the academic Study Program provided by the Ministry of Public Education of Costa Rica (henceforth, MEP) for academic schools. Furthermore, the school is relatively small, as the number of students per grade ranges between ten and twenty people, but the number of students might sometimes be inferior, such as the case of the control group in this study, which had only six students enrolled. These students attend two forty-minute English lessons per week.

Since one of the researchers is the main English teacher of the chosen population, she, from her experience as a teacher in this high school, has noticed that students have a very low level of English, including limitations in the learning and recognition of the simple past and past participle of irregular verbs. The site was hence chosen given the researchers' familiarity with the school and their knowledge about these students' specific needs; besides, it is a night school, and

many of the students need more hands-on learning tools that allow them to study anywhere, anytime, as most of them have day jobs. In fact, according to information given by students, sixty percent of the students held either a part-time or full-time job.

5.4 Participants

The participants in this study were twelve (12) tenth-graders in the experimental group as well as six (6) eleventh-graders in the control group, all of them enrolled in English classes corresponding to the English syllabus set out by MEP.

As regulated by MEP, in order for students to attend this high school, they must be over fifteen and less than twenty-five years of age and have not enrolled in any high school for one year. The participants' average age ranged between 17 and 22. In addition, students attending this high school had a very low command of the English language as evidenced in the results from the pre-test as well as in the knowledge by one of the researchers at that school, who is the head teacher. Moreover, many of these students worked during the day and attended classes at night, which serves as an indicator of their limited availability to study and do homework. A very important reason why this setting was chosen over others in the area is because one of the main researchers has been working there as head English teacher over the last nine years; as such, she noticed that after studying the simple past tense of the irregular verbs and testing students on that topic throughout the school year, her students still did not master the topic.

Initially, it had been decided that participants would be chosen based on whether they owned at least a smart cell phone. However, once the researchers applied the questionnaires, it was found that only two of the students did not own a smart device. Hence, these students were paired with other students who did own a smartphone to work with the applications instead of

leaving them out.

The eleventh graders constituted the control group, given that, as stated above, there was only one group per school level. The reason for selecting the eleventh graders as controls relies on the fact that they had already studied the target contents (i.e., the simple past tense and the past participle) in tenth grade and did so in eleventh grade, as this target topic is reviewed as part of the contents proposed by MEP for eleventh grade. As a matter of fact, the eleventh graders had also been studying the past participle both in the first and the second trimester. It was assumed that the eleventh graders would know the target content and hence, the results in their pre- and post-tests would be advanced, as compared to those by the tenth graders.

5.5 Data collection process

The experimental group was asked to use the mobile applications five consecutive weeks, while the control group did not receive any treatment; both groups worked separately. The head teacher reviewed the selected verbs with the eleventh graders, who indeed evidenced partial knowledge of the target contents in the pretest; this was done through traditional methods. The eleventh graders seemed to have a clear idea of how the simple past as well as the past participle are accomplished, though they admitted the need to make an extra effort to memorize the simple past and the past participle forms of irregular verbs. In the case of the eleventh graders (the control group), they did not evidence full knowledge of the target content in the pre-test.

For the sessions where the applications were implemented in the experimental group, the five researchers worked for seven consecutive weeks; five weeks were devoted to the use of the target apps and the first and the final sessions were devoted to applying pre/posttest and

questionnaires. First, students were asked to install the applications onto their cell phones, one at a time. Next, students were trained on how to use each through an orientation session. The applications used contain specific exercises targeted at learning English irregular verb forms. For example, some have lists of verbs and their various conjugations for users to read, pronounce, and identify in multiple-choice exercises. Others rely on illustrations of various irregular verbs and verb forms. A total three applications were used, namely, English Irregular Verbs Balloon Game, IV App, and Irregular Verbs App. The goal in these applications was to engage students in learning irregular verb forms through ludic exercises to make the learning more interesting for them. The selection of the specific applications used was decided upon once the study begun.

Two researchers at a time attended each session and were responsible for guiding the students and supervising while they were using the various applications with irregular verbs which had been previously selected as target. The main teacher, as well as one of the researchers, reinforced the use of the applications not only during class but beyond.

5.6 Instruments

Initially, a five-closed question questionnaire (see Appendix 2) was given to the students in the experimental group with the aim of assessing whether or not they owned a mobile phone and how familiar they were with the use of mobile applications as a complementary tool to assist the learning of English.

Next, in order to gather the data for this study, a pre-test was given to both participating groups. The pre-test (see Appendix 1) assessed how much the participants knew the simple past tense and the past participle of a list of irregular verbs in English.

Students next used the mobile applications for five consecutive weeks. Once the mobile application-based activities were implemented for the experimental group, all participants took a

posttest (see Appendix 1) which allowed the researchers to evaluate the extent to which the selected mobile applications helped the participants from the experimental group in the learning of the simple past and the past participle of irregular verbs in English.

Additionally, throughout the period during which the applications were implemented in the tenth-grade class, three guided observations took place. They were aimed at assessing the level of engagement on the part of the participating students as well as difficulties which they might face with the use of the proposed applications (see Appendix 4 for checklist used).

Once the mobile application-based activities were implemented for the experimental group, all participants took a posttest (see Appendix 1) which allowed the researchers to evaluate the extent to which the selected mobile applications had helped the participants from the experimental group in the learning of the simple past and the past participle of irregular verbs in English.

After the post-test, another six-closed question questionnaire (see Appendix 3) was given to the students from the experimental group to find out, from the participants' perspectives, how useful the implementation of the applications was to support their learning of the simple past tense and past participle of irregular verbs in English.

5.7 Validity and Reliability

To ensure the validity of the instruments used, triangulation was relied upon. According to Cohen, Manion, and Morrison (2000), triangulation is “the use of two or more methods of data collection” (p.112). As stated above, three instruments were used in order to gather data and to assure that the results be valid. By comparing the scores obtained in the pre-test and the post-test by the control and the experimental groups, we were able to more objectively argue for the

usefulness of the applications herein proposed.

In regard to reliability, it “is a measure of consistency over time and over similar samples. “A reliable instrument for a piece of research will yield similar data from similar respondents over time” (Cohen et al. 2000, p.118). Thus, to ensure reliability, the researchers piloted the pretest and posttest to evaluate their reliability and to ensure that the instruments were accurate and understandable. The researchers tested the instruments in order to ensure their feasibility as well as to test their adequacy. Finally, the applications used in the study were tried by the researchers in order to evaluate content and accuracy.

6 Data Analysis and Findings

In this section, the data obtained from the instruments are displayed as they were collected chronologically. As stated in the methodology, there were an experimental and a control group, and both groups were given the same pretest and posttest instruments. As for the experimental group, it was additionally given questionnaires, and observations were carried out for the experimental group throughout the study.

6.1 Results from the Pretest by the Experimental Group

The first instrument applied was the pretest. The Table below displays the results obtained by each one of the participants in the experimental group. Each student was randomly assigned a letter of the alphabet to keep a record of their results individually in order to compare them with the posttest results and as a way of keeping their names anonymous. Moreover, the numbers that

appear in the results-column are based on a scale from 1 to 100, where 1 is the minimum, and 100 is the maximum grade a student could obtain. Besides, it is important to stress that these grades do not mean the points obtained on the pretest but their average grades. The test was worth a total 73 points, and students' grades were calculated individually based on the total number of points obtained.

The pretest was aimed at assessing students' knowledge of the past and past participle of irregular verbs in English at the moment the test was applied. It was divided into three sections (see Appendix 1). In the first part, students were asked to recognize the main difference between irregular and regular verbs by selecting the correct definition for each. In the next section, they were asked to recognize either the past or the past participle of some verbs, i.e., to select the correct form for each target verb. In the next section, students were given a box with both irregular and regular verbs mixed together; they were asked to circle only the ones that were irregular. Afterwards, they were asked to complete a table with the past and the past participle of some irregular verbs. Finally, they were asked to match irregular verbs with the picture that best represented each target verb in its past form. In total, 81 irregular verbs, both the past and the past participle, were assessed (See a list of the verbs included in Appendix 7). These verbs were selected because they were the ones that would be taught through the mobile applications used; thus, it was important to determine whether or not they were known by the participants. The results are displayed as follows:

6.1.1 Table 1. Pretest Grades: Experimental Group

Male (M) / Female (F)	Student	Grade Obtained (out of 100)
M	A	8
F	C	11
M	D	14
F	F	10
F	H	1
F	I	3
F	J	8
F	K	4
F	L	11
F	M	3
F	N	14
F	O	4
Class Average Grade		7.5

As shown in Table 1 above, students' average grade did not even reach 10 out of 100. Given the fact that students showed very low command of the simple past and the past participle of irregular verbs in English, it was a great opportunity for the researchers to assess the usability of the proposed applications. The participant's grade in the pre-test was crucial for this study since it gave even more meaning to it: it reinforced that working with the chosen population was highly needed in order to help students make meaningful progress in the learning of the past and past participle forms of irregular verbs through a very innovating didactic tool. Additionally, their

grades were key in assessing whether introducing a non-conventional pedagogical tool into the learning of such a feature of English was advantageous.

Students' low grades are not surprising; as stated earlier in this study, Larsen et. al (2002), and Cronnell and Southwest Regional Laboratory for Educational Research and Development (1982) pointed out that acquiring the simple past and past participle verb forms is often challenging for non-native speakers of English, for they find it difficult to distinguish between the two forms; therefore, they ignore how to use them correctly.

Likewise, Don (2014) argues that students do not know the forms of the past tense verbs since they have not stored them in their memories. He agrees that mastering past tense verb forms is a process that rather than applying rules involves memorization. Thus, student's low grades might be explained in terms of not having the past and past participle verb forms stored in memory yet. Our proposal is that this result most likely also reflects the ways in which students are presented with the target content, namely, through verb lists to be memorized, hence the relevance of proposing a new more innovative way to do so.

6.2 Results from Questionnaire 1 on Students' Previous Knowledge about the Existence and Use of Mobile Applications

The questionnaire was answered by all 12 participating students. Its aim was to establish the number of students who knew about the use of applications for smart devices as a supplementary means to learn English (See Appendix 2). Additionally, the questionnaire was designed to find out whether or not participants had ever used any applications to assist their

learning of English, as well as their opinion on using Apps to reinforce their learning.

In the first question, students were asked whether or not they owned a mobile device. Before the implementation of the application, it was necessary to know the exact number of students who had access to a mobile phone in order to know if any adaptation was needed. Ten students reported having a cell phone, and one of them owned a cell phone as well as a tablet. Two students reported not having a mobile device. In the end, all of the students had the possibility of being part of the study since the majority had a mobile device to work with; the ones who did not have a cellphone had the option of using one provided by the researchers without any difficulty.

Secondly, students were asked if they were aware of the existence of mobile applications that could be used to learn specific features of the English language, and whether they used any such applications. Eighty-seven percent (87%) of the participating students stated *not* knowing about mobile applications to learn English. Even though there are thousands of downloadable mobile applications in Google Play and App Store, these students indicated not knowing the existence of mobile applications to learn English *per se*.

The remaining thirteen percent (13%) of the participants reported that they had made use of applications such as English-Spanish dictionaries as well as Google translator at some point in their learning. Furthermore, one of the participants described an application to learn English by associating images with vocabulary; namely, Duolingo. In sum, most of the participating students only relied on the use of translation-applications to look up the meaning of new words.

Among what has been shown by previous research regarding the use of apps in EFL context, Mindog (2007) argues that students tend to resort to using game-like applications to

practice specific features of the English language, though this was not the case in the setting in which this study took place.

Thirdly, participants were asked whether or not it would be interesting for them to integrate the use of applications as part of their class activities. To this, 93% indicated that they would like to take English lessons in which mobile applications are used. They argued that its use in class would help them feel motivated, that it would facilitate their English learning, that it is a feasible option to learn English differently, and that it would also provide extra material and/or explanations to understand specific features of the English language. The participating students also argued that by using mobile applications to learn the simple past and past participle of irregular verbs in English, their English lessons would be more engaging; thus, more successful. This is not surprising since authors such as Kim and Kwon (2012) have argued that mobile devices encourage learners to feel motivated, autonomous, and socially interactive.

Finally, students were asked if they thought that the use of mobile applications in class would be beneficial as part of the materials used in their English lessons. All participants agreed that the implementation of mobile applications in the English class would most likely have a positive impact on their learning. Most students agreed that mobile applications might ease their learning of English as well as provide extra sources to practice English outside the classroom. They also asserted that by using mobile applications, the target content is presented in an entertainingly manner; therefore, they would have a better comprehension of the target content.

In sum, through the first questionnaire, the participants showed willingness to participate in the use of mobile phone applications. Furthermore, they showed awareness regarding the benefits their use in class would bring about. Additionally, it is worth noting that students pointed

out that among the greatest advantages, motivation was the one that stands out the most. This was later reinforced by the end of the research when they pointed that they felt motivated; therefore, engaged in the sessions with the apps.

6.3 Results from the Pretest by the Control Group

The control group was second in taking the pretest. The Table below shows the results.

6.3.1 Table 2. Pretest Grades: Control Group

Male (M) / Female (F)	Student	Grade Obtained (out of 100)
M	A	25
F	B	29
F	C	16
F	D	78
F	E	15
M	F	14
Class Grade Average		29.5

As stated in the results of the pretest from the experimental group, the students from the control group were also given a random letter from the alphabet in order to show their grades confidentially. Moreover, the grades are based on a scale from 1 as the minimum and 100 as the highest score. The Table above shows that students' grades ranged from 14 to 78. Recall that the students from this group were expected to have an advantage over the experimental group since they had already studied the past and participle verbs in English the previous year. As the results show, indeed the control group scored higher than the experimental group, but their grades are

still extremely low, as they do not even get to 50% of the maximum grade.

If we look at the methodology used for these students to study the target verb forms in tenth grade, namely, memorization of word lists, it is evident that, as argued by Krashen (1982), the use of memorization does not involve internalization of the target language; otherwise, one would have expected higher grades on this pre-test. On the other hand, as argued by Hasbún (1992), the acquisitions of past participle usually occurs late in comparison to other language features because of the complexity it involves and because in order to acquire it is necessary to memorize the verbs. However, Hasbún (1992) argues as well that to reach that acquisition, learners have to be exposed to a lot of comprehensible input. Thus, it can be argued that the control group had this low grade not because they were using memorization as the only way to acquire the verbs but because they were probably not receiving enough input and motivation during the acquisition process.

This low grade also clearly evidences that these eleventh graders passed tenth grade with very limited command of the past and past participle verb forms in English. This is true despite the fact that, in order to pass the national standardized test to graduate from high school, the *Bachillerato Test*, it is essential for students to know these verb forms. These results further highlight the relevance of this research proposal, as a new methodology is proposed to help students truly acquire English verbs through the use of mobile applications.

Finally, the data obtained clearly evidences that the ways through which the target verb form had been taught had been unsuccessful. The data collected was also crucial to understand that sometimes teachers implement same traditional methods that are far from being appealing to students; therefore, their motivation and attitudes towards the learning process might be affected.

Moreover, the population who took part in this study had limited time to devote to studying beyond the classroom setting, given that most of them held part-time or full-time jobs.

6.4 Insights from class observations

Due to the use of the applications, students were able to practice simple past and past participle verbs forms. The first application was aimed at practicing thirty (30) verbs by the use of pictures representing each target verb, as well as showing their written form and pronunciation. Next, students chose the correct image that represented each of the verbs and played a memory game. On the other hand, the second application included four lessons wherein ten irregular verbs (in their infinitive, simple past and past participle form) were practiced. In each lesson, there were pictures that represented each target verb for the students to learn their meanings. Next, students assessed themselves by completing a written test with the missing form of the verb given. Finally, through a game, students had to pop a balloon with the correct form of the shown irregular verb in order to get score points (see Appendix 7 for a full description of each app).

Throughout the implementation of the mobile applications, three observations were carried out in order to look at specific behaviors on the part of the participating students throughout the process. The target behaviors observed were: 1. engagement with the apps, 2. how frequently students had questions on how the apps worked, 3. collaboration by the facilitator and among students when needed, 4. attitude towards the use of the apps, and 5. extent to which the use of the applications appeared to ease students' understanding of the topic.

Regarding students' ability to understand how the applications worked, they evidenced a clear understanding of how to use them in each session. All participants carefully followed the

instructions given, and some questions arose just to confirm whether what they were doing was right. In one of the observations, an extra explanation was given by one of the researchers as to aid students to clearly understand how to work with the target apps. Some of the questions that the students asked were “*how do we pass to the next level?*”, “*how many verbs are there?*”, “*how do I know which level I am in?*”, “*do I have to complete each level to get to the next one?*”, and “*what is the past of swim?*”. It is important to specify that these questions were asked in Spanish, not in the target language.

Additionally, participants worked individually most of the time. As soon as they needed help, they asked other students to help with a given application. In fact, in the last observation, there were two students working together, who seemed to enjoy working collaboratively. This finding reinforces what researchers such as McGhee and Kozma (2001), Lai and Kritsonis, (2006), Kim and Kwon (2012) and Kukulska-Hulme (2009) state, namely, that the use of technology in class promotes collaborative learning.

As soon as the participants got in contact with the applications given, they stayed engaged from beginning to end. While they were working, 100% of the participating students were focused on working on the applications; they did not distract themselves from the task. Additionally, participants evidenced high motivation in using the apps, as evidenced in their reactions: no one showed to be anxious, angry, or frustrated.

The participants’ encouragement to work with the applications is consistent with what has been previously regarded as one of the great advantages of MALL in academic contexts (e.g., Lai & Kritsonis, 2006; Kim & Kwon, 2012). When working with these applications, students obtained positive results because they were exposed to great sources of input in a non-

conventional way and they were able to progress throughout the lessons one step at a time. This shed light on how useful the use of mobile applications is based on language learning and how educators can take advantage of these learning tools, especially since they have shown positive results according to research done in different countries like the ones suggested by Qun Wu (2015), Sandberg, Maris, and De Geus (2011), and Başoğlu and Akdemir (2010).

Furthermore, students celebrated getting the right answers; when they finished, they were enthusiastic to move on to the next levels in the applications, and they constantly helped each other in the use of the applications. Besides, as they got into the applications, participants were competing against each other by trying to get the highest score in the class; thus, this turned out to be a motivating factor to try harder each time. They seemed to enjoy much the fact of having to pass a level to get to the following one; it was a challenge. Furthermore, as soon as they finished, they were eager for more by saying things such as, “*I finished, now what else are we working on?*”. All of these comments were, once again, in Spanish. Students’ engagement was one of the most important behaviors observed.

In sum, students’ positive attitude helped to maintain a pleasant class atmosphere; they stayed calm and relaxed. Moreover, the participants showed ability to work with the apps and enthusiasm during each session. Students’ comments were truly constructive, and they openly expressed how attractive the Mobile apps were.

Besides, the researchers as well as the head teacher noticed that students stopped referring to all the verbs in Spanish and did it in English. For example, during the first two sessions, almost all of them read the following verbs by using Spanish phonetic rules (i.e., reading each letter in the order in which it was presented, just as it would be done when reading Spanish words): *fly*

/fi/; spread /espred/; undertake /underteik/; hide /hid/; overcome /overcome/; among others.

However, from the third session on, the students showed awareness of the correct pronunciation of these verbs, since they were able to hear the correct native pronunciation for each verb provided by the apps over and over.

Additionally, for the last session and the posttest session, it was evident that all of them had already acquired the correct pronunciation of all the verbs they had worked on along the five sessions².

This was an added benefit from the use of the apps, since students listened to the pronunciation of each verb every time they pressed on a target verb form, being able to recall each verb form.

Such was their level of motivation that the class following the posttest session, several students asked their head teacher how well they had done in the posttest. The teacher told them that they had scored even three times higher than in the pretest. Knowing this, students were happy, excited, and proud of themselves (the quantitative results from the post- test are presented below).

Finally, during the observations students evidenced a more comprehensible knowledge of the target verbs; indeed, participants themselves expressed that this was a more appealing way of learning these verbs because both the form and an image were used to help them guess, and hence learn, the right meanings. As an illustration of this, one of the participants said to the

² Even though participants improved the pronunciation of some verbs, accurate pronunciation was not tested here since assessing it would have involved a new set of instruments to check for correctness in pronunciation. The fact that they showed an improvement in pronunciation was because they, for the most part, attempted to copy the native-like pronunciation played in the apps, but still their pronunciation was not completely accurate.

teacher “*profe, ¿por qué no nos hace un examen basado en estas aplicaciones? Pienso que estas imágenes podrían ayudarme a recordar las palabras*” (‘teacher, why don’t you give us a test based on these applications because I think that these images could help me recall the words’). As soon as this student stated this, some other students agreed with her. As West (2013) wisely points out, teachers can take advantage of the fact that students want to use technology as a learning tool because they love it and use it daily; doing so will make their learning process more engaging as well.

The use of the three applications proved their usefulness in the learning of the simple past and past participle of the irregular verbs in English. The first two applications helped students get the necessary input to memorize the verbs with a set of pictures displaying the verbs divided into categories, as well as a test section in which they proved what they had learned. The third application was a game to reinforce what they had been learning from the previous applications. This last application was more engaging since they have already memorized the verbs and the idea was to select, as quickly as possible, the correct forms. The three applications showed the same level of importance in the learning of the target verbs. Thus, after observing the students working with the target applications, the researchers confirmed that the chosen apps were all successful to learn the simple past and the past participle of irregular verbs.

As a final comment, participants reported having used the applications given beyond the sessions conducted by the researchers (i.e., at home, for example), although they were not required to do so. This is an indication of how much they liked the apps and how motivated they were to use them. The fact that the students used the mobile applications beyond the confines of a classroom has been pointed out as an advantage of MALL. As mentioned earlier, MALL tears down the barriers of physical space and allows students to use mobile tools anywhere, anytime

(Thoušný & Bradley, 2011).

6.5 Results from the Posttest by the Experimental Group

This section displays the results obtained from the posttest taken by the experimental group by the end of the study. Recall that the test was the very same test as the one applied by the beginning of the study (pretest). Additionally, it was meant to determine how much students had improved their learning on the simple past and the past participle of irregular verbs in English as compared to the first test applied.

6.5.1 Table 3. Posttest Grades: Experimental Group

Male (M) / Female (F)	Student	Grade Obtained (out of 100)
M	A	19
F	C	19
M	D	48
F	F	22
F	H	8
F	I	40
F	J	64
F	K	44
F	L	42
F	M	42
F	N	19
F	O	27
Class Average Grade		32.8

Although the average grade obtained in the post-test is still not a passing grade, it is clear that participants improved their scores in contrast with the pretest. Whereas in the pretest, participants' score ranged from 1 to 14, in the posttest, the lowest grade was obtained by participant H (8) and the highest score by participant J (64). As shown in Table 3, some of the students improved more than others. The participants' obtained grade means an improvement of 33.3% in contrast to the pretest. A more detailed discussion of these results is presented in the discussion section below.

6.6 Results from the Posttest by the Control Group

Findings from the posttest taken by the control group are displayed in Table 4:

6.6.1 Table 4. Posttest Grades: Control Group

Male (M) / Female (F)	Student	Grade Obtained (out of 100)
M	A	36
F	B	37
F	C	30
F	D	89
F	E	21
M	F	21
Class Grade Average		39

Just like for the experimental group, the mean grade obtained by the control group in the post-test was not a passing grade; yet, students from the control group also obtained better grades

in the posttest, despite the fact that they did not use the target applications to learn the target verb forms. Specifically, the students' grades in the pretest ranged from 14 to 78, in the posttest their grades ranged from 21 to 89. Nonetheless, if we look at the average grade, it went from 29 to 39; the improvement was 32%, as compared to the improvement by the experimental group (i.e., 333%). Even though the difference between the percentages of the improvement between the control and the experimental group is not quantitatively significant, it is worth remembering that the control group had studied the cognitive target before through a different method than did the students in the experimental group, namely through memorization.

The control group's improvement might be accounted for in terms of the fact that they also studied the target verb forms. They reviewed the simple past and the past participle of the target verbs through a list of irregular verbs in English, which they were simply asked to memorize (see appendix # 10). Here, we could not argue that the students learned how to pronounce correctly the target verbs forms, however, students in the experimental group did. In other words, the use of memorization to acquire the target verbs has shown positive results in the control group regarding their grades and the fact that students are just learning the words and their meanings. However, through the use of mobile applications to learn the target verbs, better results were obtained not only in terms of grades but also in terms of pronunciation and motivation.

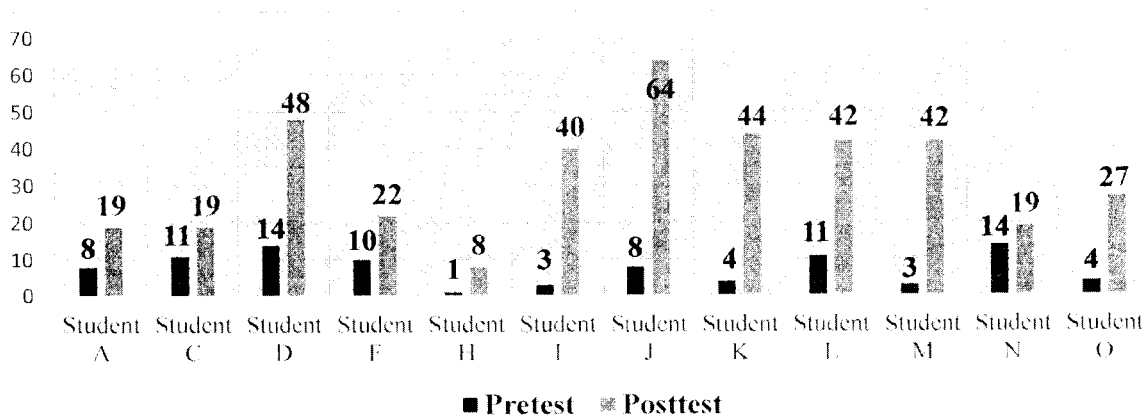
6.7 Comparative Analysis between the Pre- and Posttest Results

In this section, it is displayed a contrast between the pre – and the post-test results to show how significant the improvement was by both groups; the control and the experimental group

6.7.1 Experimental group

The following Graph shows a contrast between the results obtained from the pre-test and the post-test by the experimental group.

6.7.1.1 Graph 1. Experimental Group: Pretest and Posttest



In order to understand the graph above, it should be interpreted as the first bars (the dark black ones) representing the results from the pretest, and the second bar (the grey ones) is representing the results from the posttest. As displayed in the Graph, all participants scored higher in the posttest; some of them showed a considerable improvement in contrast to the grades gotten in the pretest. For example, the participant who showed the most noteworthy improvement was student J; he got an 8 in the pretest whereas in the posttest he obtained a 64; i.e., this student improved by 56 points as compared to the pretest.

Besides, students D, I, K, L, and M also showed a clear enhancement. Additionally, as already stated, participants pointed out that the use of mobile applications to learn the past and past participle of irregular verbs in English helped them remember more easily the past and past participle forms; thus, this explains their improvement. In addition, as can be seen in Graph 1, student J showed the most significant improvement, that is to say, 56 more points in the posttest.

Additionally, it is noteworthy to say that the researchers worked with a student with significant adaptation (student C) for whom the English subject was very difficult, and what was satisfactory is that this student also showed an improvement at the end of the study.

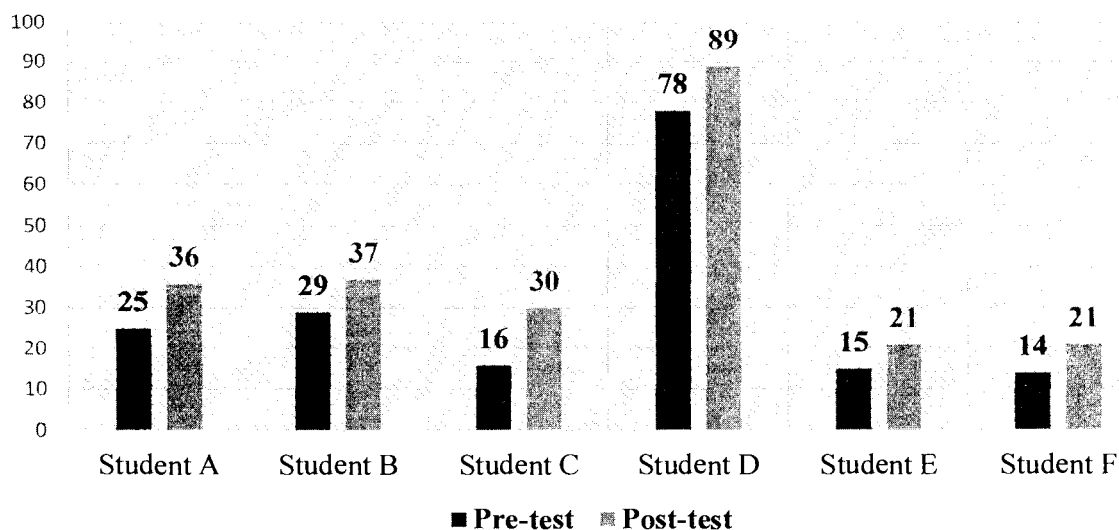
Overall, even though the findings of this study showed that all participants improved their grades in the posttest, still none of them obtained a least a passing grade. Herein it is worth stressing on the fact that, as stated earlier in the methodology, this population faced some situations that accounted for their low academic achievement such as holding full time jobs, commuting from long distances, family and social problems, which might have accounted for their low grades in the posttest despite the implementation of the apps. Another important variable which might explain the student's low rates of achievement is the number of lessons devoted to the use of mobile applications. Due to the fact that students were exposed to the applications for a short period of time, they worked with each application just a few lessons. As a result, even though students increased their grades in the posttest after the use of the applications, they still needed more input and practice through the lessons in order to achieve higher grades.

In sum, although the improvement was not as significant as expected, it is clear that every single student improved by the end of the study. Furthermore, beyond their grades, there were other factors such as the engagement and motivation shown and expressed by all participating students and which are key to this study in order to fairly argue for the impact in the use mobile applications to improve the acquisition of the target structure.

6.7.2 The control group

The graph below contrasts the results obtained in the pretest and the posttest by the control group.

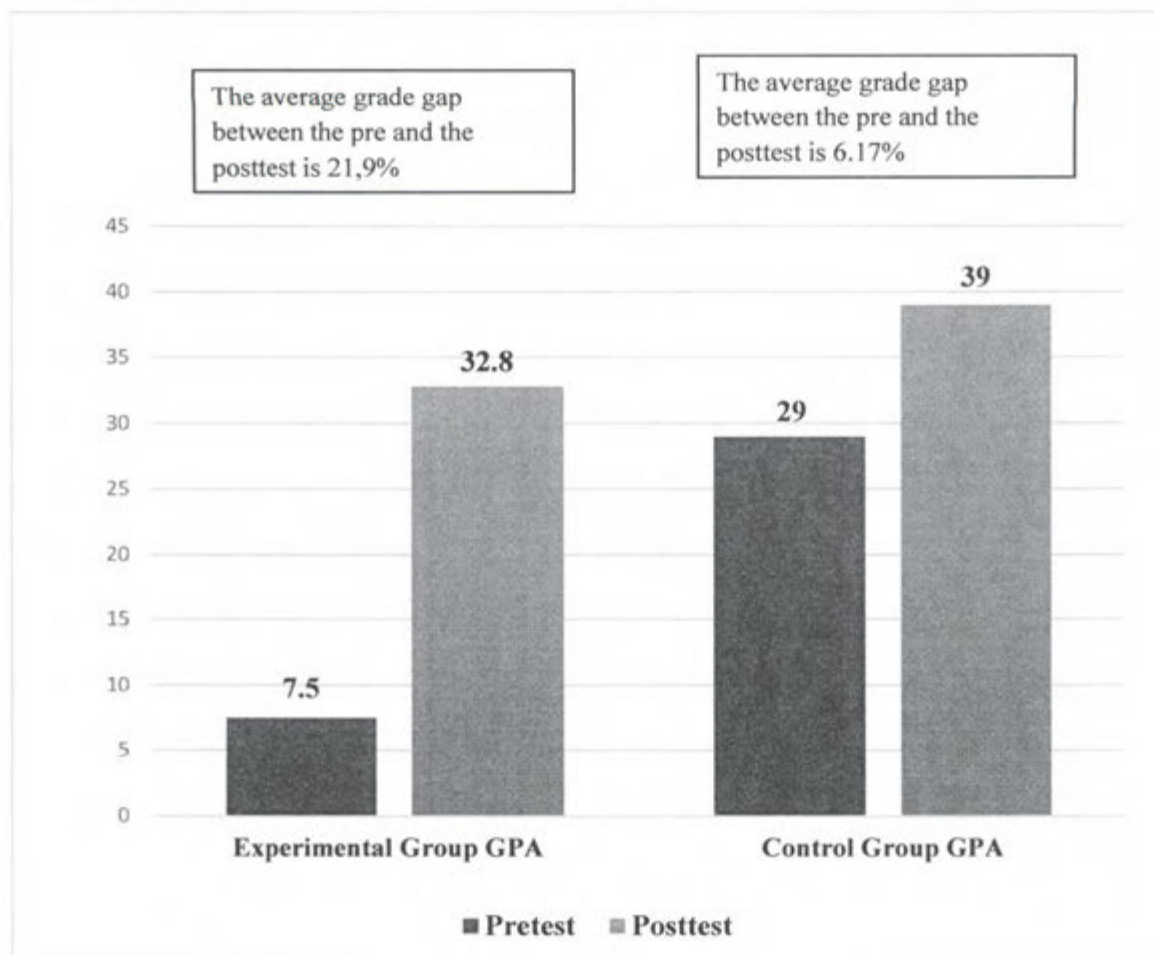
6.7.2.1 Graph 2: Results from the Pretest and the Posttest in the Control Group, a Comparison.



As can be seen, all participants from the control group improved their grades in the posttest, as well. However, the improvement is not as remarkable as for that evidenced in the experimental group; the average improvement in this group was 9,5 points.

To better depict the extent to which both groups improved their grades in the posttest, the graph below displays a comparison between the grades obtained by the experimental and the control groups on both tests.

6.7.2.2 Graph 3. Experimental and Control Groups



As illustrated in the graph above, students from the control group scored higher in the pre and posttests. It needs to be recalled that the control group had already studied the past and past participle of the irregular verbs in English in tenth grade through regular methods such as memorization of verb lists; these verb forms were reviewed during eleventh grade by using the same traditional methodology; hence, these students had an advantage over the experimental group. Additionally, as shown in the graph, both groups improved their grades, but the experimental group improved much more than the control group. It is also worth pointing out that

the experimental group studied these verb forms for the first time. This suggests that the experimental group, through the use of a different tool from the conventional methodologies, was able to remember the simple past and the past participle verb forms more easily.

As also shown in the graph, on average, the experimental group overall-grade improved 25 points, that is 33.3% as compared to the pretest; on the other hand, the control group overall-grade improved by 9,5 points; namely, 32% in comparison to the pretest. In short, despite the fact that both groups improved their grades, the group that used the mobile applications showed an advantage over the control group, yet slight.

6.8 Results from Questionnaire 2: Participants' Insights

The last instrument applied was a student questionnaire with eight closed questions whose purpose was to assess how helpful the applications were for the participants based on their personal perception regarding the usefulness of the target applications as a didactic means to support the learning of the simple past and past participle forms of English irregular verbs. This questionnaire was answered by 11 students, as one of the students did not answer it for being absent from class on the day that the questionnaire was given.

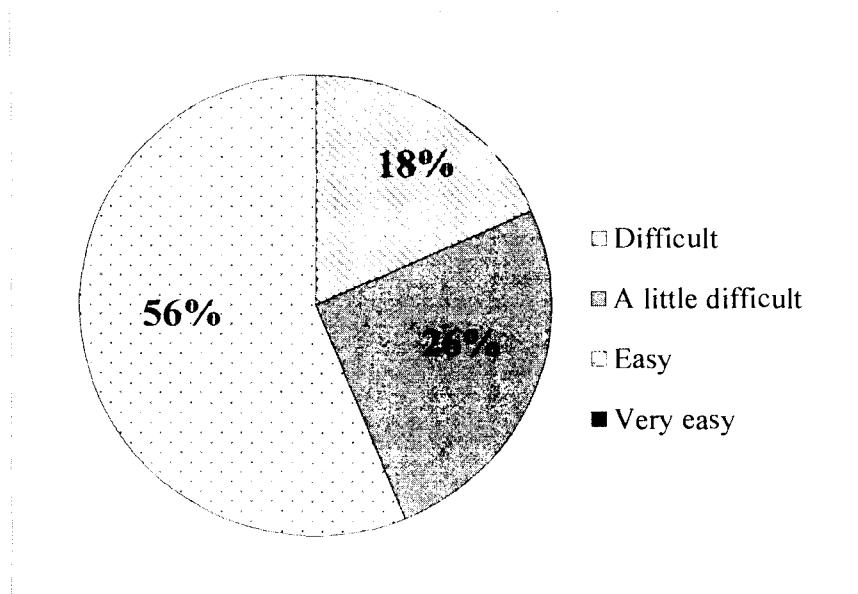
Firstly, participants were asked if they had liked to use the mobile applications in class. They were given four different options to choose from: *I did not like it*, *I liked it a little*, *I liked it*, and *I liked it very much*. All the participating students indicated that they liked using the mobile apps as a tool to support the learning of English *very much*. This result was not surprising given that positive attitudes in the students were observed throughout the class observations. Students appeared motivated and engaged during the process, taking control over their own learning and

interacting collaboratively with others. This result is consistent with what was suggested earlier by Kim and Kwonv (2012), that the student's willingness towards learning, motivation, and autonomy in their own learning process rise when using MALL in the classroom.

Secondly, participants were asked about the usefulness of the target mobile apps to support the learning of the simple past of irregular verbs in English. They had to choose from: *not useful*, *a little useful*, *useful*, and *very useful*. To this question, students also had positive reactions: 67% answered that the applications were *very useful* to learn the verbs, whereas 33% said that the applications were *useful*. In sum, all the participating students agreed that the target applications helped them improve the learning of the simple past and past participle forms of English irregular verbs.

Thirdly, Students were asked about the level of difficulty in the use of the target applications. Here too, students were given four options in order to choose the one that best described their opinion, namely, *difficult*, *a little difficult*, *easy*, and *very easy*. The results are shown in Graph 4 below.

6.8.1 Graph 4: Students' Opinions Regarding the Level of Difficulty in the Use of the Target Apps



As can be seen in the graph above, 18 % of students said they found the applications *a little difficult* to manage. On the other hand, 55% of them said that the applications were *easy* to use. Twenty-five percent of the students said the application was *very easy* to use. In general terms, students were able to effortlessly handle the applications; 100% of them were always able to finish the tasks proposed per each session.

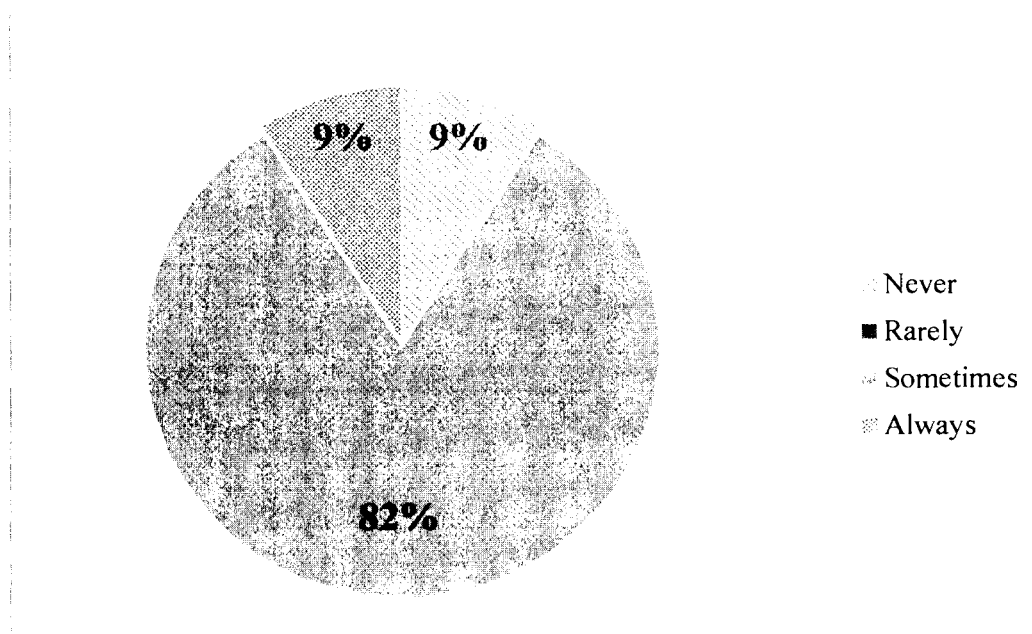
Participants were additionally asked whether, after having used the apps, they would like to use them further as a helping tool. *All of them* agreed that they would like to continue using mobile applications in order to assist their learning of English.

The fifth question was aimed at determining whether the students would advise using mobile apps to support the learning of English. The majority of the students (91%) said that they would recommend the use of applications to support one's English learning to others. As students

perceived an improvement in the acquisition of the simple past and past participle verbs in English, they would not only continue to use them but also would suggest their use as a complementary tool to their peers.

Although this study stressed the use of applications within each class session, upon completion of the study students were encouraged to voluntarily use the applications at home or whenever possible. Therefore, they were asked if they had used the apps outside the sessions; the results from this inquiry are illustrated in Graph 5.

6.8.2 Graph 5. Students' Use of Apps Outside the Classroom

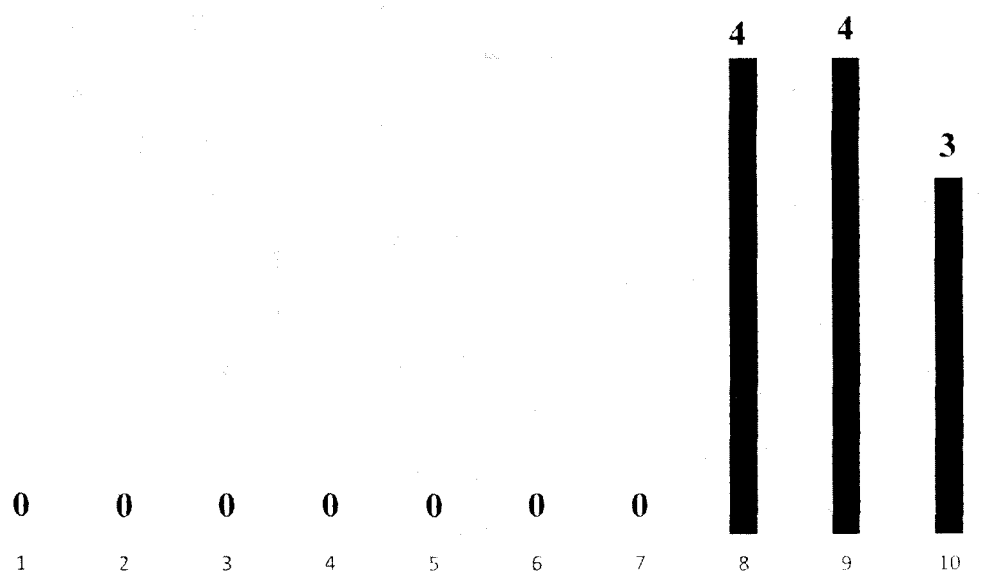


Although only 1 of the participating students reported having *always* used the applications beyond the class sessions, the majority, 82%, stated that they *sometimes* used the applications outside the classroom. Overall, the participants not only used the apps during the class sessions but beyond. These results are consistent with what was gathered from the observations, as

students consistently stated that they were so motivated to use the apps that they could not wait until the next session to use them. These results are also consistent with the theory which states that Mobile Assisted Language Learning entails the use of mobile smart devices to assist language learning, which not only can take place in a classroom but can also be used any time any place (Miangah & Nezarat, 2012). In this case, a great number of the participating students reported having used the applications at home or in their free time at least once.

Finally, participants were asked to evaluate their own perceptions of the effectiveness of having worked with mobile applications to learn the past and past participle verb forms in English. They were given a scale between 1 and 10, where 1 was the lowest score and 10 the highest; they rated how useful it was for them to use the applications. The graph below displays these results.

6.8.3 Graph 6. Students' Overall Rating on the Effectiveness of the Target Applications



Eleven students out of twelve answered this question. As can be seen, three of the participating students rated the applications with the highest grade; A grade of 9 was given by four students and a grade of 8 was given by 4 students as well. Unquestionably, the students' ratings are very positive; i.e., the target apps were rated as very effective.

Overall, participants' reactions towards the use of the target apps showed to be very positive. They agreed that the use of such a tool helped and would help them learn the past and past participle verbs in English in a more appealing manner. The participants were not only motivated to use the apps within the classroom; they stated that such apps were a handy source to be used anytime, anywhere. Moreover, the use of mobile apps appeared to be an easy tool to use, since students were able to satisfactorily complete all the tasks assigned. Furthermore, students felt that through the use of mobile apps in the classroom, they were able to more easily remember the past and the past participle of some verbs in English; as stated by them, the target apps were effective.

Additionally, there are clear matches between the findings from the observations and those from this questionnaire, since the observed behaviors such as engagement, motivation, and comprehension, among others, were confirmed by the participants through the questionnaire.

Overall, this study evidenced that the use of mobile applications as a complementary tool significantly raised students' motivation towards the learning of the past and past participle of irregular verbs in English. Such motivation was reflected on how engaged students were since the very first session. Even more, it was found that the participants noticeably improved the pronunciation of the verbs studied, though this was not a feature targeted in this study and hence it was not thoroughly analyzed.

Through this study, the researchers observed that students maintained a positive attitude using the mobile apps throughout all the sessions. Furthermore, it was revealed that the use of mobile apps promoted cooperative learning since students helped each other whenever it was possible. Another important finding from the observed behaviors was the fact the mobile applications supported student's comprehension and interest in the target topic.

7 Conclusions

This study was designed to assess the effectiveness of using Smart Device Applications to facilitate students' learning of the simple past and past participle of irregular verbs in English. After a period of five weeks during which the target application was used in a group of tenth graders at a public high school in Atenas, several conclusions were drawn.

First, students from the experimental group as well as students from the control group unquestionably improved their grades by the end of the study; however, the use of mobile applications showed to be much more effective than simply teaching a traditional printed list of verbs, since the improvement in the experimental group was 21,9% as compared 6,16% by the control group (it is worth remembering that for the control group, the target content had already been studied the previous year and hence, they reviewed it in eleventh grade by means of traditional methods; for the experimental group, the target was introduced for the first time by use of the target application). Therefore, the use of mobile applications as a complementary tool to aid students with the acquisition of past tense and past participle verb forms was clearly beneficial.

Second, the use of mobile applications as a didactic tool was appealing for all the students. As evidenced through the class observations, students got engaged with the mobile

applications as soon as they came into contact with them. Thus, they felt more motivated to continue using them as a means of learning not only the past and the past participle verbs but also to further use mobile applications to learn any other feature of the English language. Furthermore, students themselves expressed their satisfaction through a questionnaire which was given after the apps were used.

Third, the results are aligned with the MALL approach that argues that its use has a positive impact on students' learning. This positive impact was evinced through the willingness of participants to use the applications in class, which eventually turned out to be a successful method for learning vocabulary.

Forth, the applications were not only useful to improve the learning of the verbs, but their use also helped students to learn the correct pronunciation of those verbs learned, since it was observed that students were able to recall both the written form and the pronunciation.

As a final conclusion, the three selected applications evidenced being useful in the learning of the simple past and the past participle of the irregular verbs. Every application used played a role since the first two apps supported students with the input and vocabulary necessary for their learning; the last application, which was a game, encouraged students to practice and memorize the verbs. Hence, the researchers' choice of the applications showed to be advantageous in supporting the learning of simple past and past participle of irregular verbs.

Some barriers were also found as described in the following section.

8 Limitations and Recommendations

Since a vast number of people are mobile users, teachers might experiment with the use of mobile applications in class to set the English lessons a different mood to engage current generations, which are highly technology oriented. Additionally, mobile applications are relatively easy to use; hence, its use in class is a practical alternative. Offline mobile applications are also a cheap option that can be used by both teachers and students as part of the class activities.

Nonetheless, we recommend using apps such as the one proposed herein for a longer period of time as to guarantee more long-lasting results. Although through this study, it was found that working with mobile applications was advantageous, working for a longer period would more likely result in quantitatively significant results to determine how much mobile apps truly support students' acquisition of the past tense and past participle of irregular verbs in English as well as other structures.

Secondly, it is advisable to count on a greater number of participants in order to improve the reliability of a study like this. A larger number of participants would allow researchers to observe different perspectives and/or behaviors using mobile applications.

Another recommendation would be to have the control and the experimental group with the same or at least similar number of participants and with very similar conditions (grade level).

It is also evident that the time devoted to the study was short to come up with strong conclusions as to determine the extent to which mobile applications are useful as a complementary tool to learn the past and the past participle of irregular verbs. Even though they showed to be beneficial, working with apps for an extensive lapse would guarantee results that

are more reliable and would allow generalizations to be made.

Finally, even though the actual results displayed in this study were positive, the researchers herein agree that full participation of all students in all sessions conducted would have contributed to coming up with even better results.

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10 Appendixes

10.1 Appendix 1

Pre and Posttest

Universidad de Costa Rica

Sede de Occidente

Sección de Lenguas Modernas

Licenciatura en la Enseñanza del Inglés

Investigadores: Eduardo Mora Abdallah, Vivian Garita Muñoz, María Fernanda Ramírez Valenciano, Karina Ramírez Rodríguez, Karen Zamora Solano.

Tema de Investigación: *Aplicaciones para Dispositivos Inteligentes como una Herramienta Complementaria para Apoyar el Aprendizaje del Pasado Simple y Participio de los Verbos Irregulares en Inglés con Estudiantes de Décimo Grado del Colegio Nacional Virtual Marco Tulio Salazar, Sede Escuela Central Atenas.*

Propósito de la prueba:

Este es un test diagnóstico que pretende notar el conocimiento que usted posee sobre los verbos en pasado simple y participio del idioma inglés.

Nota: Le informamos que los datos brindados en este test serán tratados solamente por los investigadores para fines del estudio en curso y las respuestas aquí dadas no afectarán su nota del curso.

Parte I. Opción Múltiple.

Escriba una “X” en el paréntesis que contiene la respuesta correcta.

“Un verbo en el que el tiempo pasado no se forma añadiendo la terminación -ed habitual”

1. La anterior es la definición para el siguiente tipo de verbos:

() Verbos regulares

() Verbos irregulares

“Un verbo en el que el pasado se forma añadiendo la terminación -ed habitual”

2. La anterior es la definición para el siguiente tipo de verbos:

() Verbos regulares

() Verbos irregulares

Part II. Complete. Escriba en el espacio en blanco el pasado simple o el pasado participio según se le solicita de cada uno de los verbos dados.

1. El pasado simple de "**understand**" es _____.
2. El pasado simple de "**draw**" es _____.
3. El pasado participio de "**spend**" es _____.
4. El pasado simple de "**cut**" es _____.
5. El pasado simple de "**drive**" es _____.
6. El pasado participio de "**break**" es _____.
7. El pasado simple de "**rise**" es _____.

Part III. Respuesta corta
















A) a continuación, se le presenta una lista de verbos en infinitivo, encierre con un círculo SOLAMENTE los que son irregulares.

want	decide	hurt	walk	say	wish	make	clean	grow	look
come	read	teach	get	give	find	hope	think	study	sing
read	become	enjoy	leave	talk	feel	put	bring		
move	begin	stay	hold	Invite	accept	watch	stand	hear	
let	meet	run	pay	sit	speak	lie	live	visit	lead
stop	lose	fall	build	use	escape	recognize	draw	play	
		end	destroy	catch					

B) A continuación, se le presenta un cuadro con verbos irregulares en inglés, la columna 1 contiene los verbos en su forma infinitiva, la columna 2 su forma pasada y en la columna 3 su forma en participio. Complete los espacios en blanco según corresponda.

1 Infinitive Verbs	2 Simple Past	3 Past Participle
have	had	had
be	was	
Give	gave	
go		gone
know	knew	
See	saw	
Do		done
Take		taken
write	wrote	
Choose		chosen
Drink		drank
Eat	ate	
begin		began
break	broke	
speak		spoken
fall	fell	

C) Escriba el verbo que corresponda para cada imagen en el espacio en blanco al lado de cada imagen. Utilice lo verbos que se le brindan en el cuadro debajo de estas imágenes.

VERBS

fly/flew	spread/spread	sleep/slept	cost/cost	beat/beat	bind/bound
cast/cast	hide/hid	swing/swung	blow/blew	swim/swam	bend/bend
wake/woke	stick/stuck	sweep/swept	undertake/undertook	shut/shut	steal/stole
tear/tore	ring/rang	lend/lent	sink/sank	overcome/overcame	light/lit
hurt/hurt					

¡Agradecemos su Participación!

10.2 Appendix 2

Student Questionnaire 1

Universidad de Costa Rica

Sede de Occidente

Sección de Lenguas Modernas

Licenciatura en la Enseñanza del inglés

Investigadores: Eduardo Mora Abdallah, Vivian Garita Muñoz, María Fernanda Ramírez Valenciano, Karina Ramírez Rodríguez, Karen Zamora Solano.

Tema de Investigación: *Aplicaciones para dispositivos inteligentes como una herramienta complementaria para apoyar el aprendizaje del pasado simple y participio de los verbos irregulares en inglés con estudiantes de décimo grado del Colegio Nacional Virtual Marco Tulio Salazar, sede Escuela Central Atenas.*

Propósito del Cuestionario:

Este breve cuestionario busca indagar sobre el conocimiento que usted tiene sobre el uso de aplicaciones móviles para dispositivos inteligentes con el fin de apoyar el aprendizaje del idioma inglés.

Nota: Le informamos que los datos brindados en este cuestionario serán tratados confidencialmente y serán usados solamente para fines de esta investigación.

A continuación, se le presentan una serie de preguntas a las cuales usted deberá contestar marcando con una **X** la respuesta que corresponde a su caso.

1. ¿Utiliza usted algún tipo de dispositivo móvil como tabletas o teléfonos inteligentes? **Si su respuesta es NO, pase a la pregunta 3.**

() Sí. ¿Cuál? _____

() No

2. ¿Sabía usted que existen aplicaciones móviles para apoyar el aprendizaje del idioma inglés? **Si su respuesta es NO, por favor pasar a la pregunta 4.**

() Sí

() No

3. ¿Usa usted alguna aplicación móvil para ayudarse con el aprendizaje del idioma inglés?

() Sí. ¿Cuál? _____

() No

4. ¿Le gustaría que se utilicen aplicaciones móviles dentro de las clases de inglés como apoyo complementario para aprender este idioma?

() Sí. ¿Por qué? _____

() No

Otro: _____

5. ¿Considera usted que sería útil el uso de aplicaciones móviles como parte del material didáctico utilizado en las clases de inglés?

() Sí. ¿Por qué? _____

() No

Otro: _____

¡Agradecemos su participación!

10.3 Appendix 3

Student Questionnaire 2

Universidad de Costa Rica

Sede de Occidente

Sección de Lenguas Modernas

Licenciatura en la Enseñanza del Inglés

Investigadores: Eduardo Mora Abdallah, Vivian Garita Muñoz, María Fernanda Ramírez Valenciano, Karina Ramírez Rodríguez and Karen Zamora Solano.

Tema de Investigación: *Aplicaciones para dispositivos inteligentes como una herramienta complementaria para apoyar el aprendizaje del pasado simple y participio de los verbos irregulares en inglés con estudiantes de décimo grado del Colegio Nacional Virtual Marco Tulio Salazar, sede Escuela Central Atenas.*

Propósito del Cuestionario:

El siguiente cuestionario tiene como finalidad que usted evalúe la efectividad del uso de aplicaciones móviles, así como precisar si el uso de las mismas como material de apoyo para el aprendizaje de los verbos irregulares en pasado y participio del inglés le ayudó a aprender estos verbos. Adicionalmente, se busca conocer cómo fue su experiencia utilizando aplicaciones en las clases de inglés.

Nota: Le informamos que los datos brindados en este cuestionario serán tratados confidencialmente y serán usados solamente para fines de esta investigación.

A continuación, se le presentan una serie de preguntas a las cuales usted debe contestar marcando con una **X** la respuesta que corresponde a su caso.

1. Utilizar aplicaciones móviles como apoyo en el aprendizaje del pasado y participio de los verbos irregulares en inglés me gustó _____.

() Nada

() Poco

() Regular

() Mucho

2. El uso de aplicaciones móviles como herramienta complementaria para aprender los verbos irregulares en pasado y participio me ayudó _____.

Nada Poco Regular Mucho

3. La utilización de las aplicaciones móviles como apoyo adicional para aprender el pasado y participio de los verbos irregulares en inglés, me resultó _____.

Nada útil poco útil útil muy útil

4. Utilizar las aplicaciones fue _____.

Difícil un poco difícil fácil muy fácil

5. Después de haber utilizado las aplicaciones, ¿continuaría utilizándolas? **Si su respuesta es NO pasa a la siguiente pregunta**

Sí No

6. ¿Recomendaría el uso de aplicaciones móviles para apoyar el aprendizaje del idioma inglés?

Sí No Tal vez

7. Si usted tuviera que evaluar la eficacia del uso de aplicaciones móviles como material didáctico complementario para el aprendizaje del pasado y el participio de los verbos irregulares del idioma inglés ¿Qué calificación le daría? **Siendo 1 la calificación más baja y 10 la más alta.** Marque con una X la casilla que corresponde a su criterio.

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

¡Agradecemos su participación!

10.4 Appendix 4

Student Observation

Universidad de Costa Rica

Sede de Occidente

Observation Checklist

Observation #: _____

Observer: _____

Date: _____

Duration of the observation: _____

Observed Behaviors	Yes	No	Comments
Students have problems using the mobile applications			
Students ask questions to know how the applications work			
Students work collaboratively and cooperatively			
Students are engaged in the activity with the applications			
Students take a lot of time working on the tasks			
Students show a positive attitude towards the use of the applications			

10.5 Appendix 5

Description of the Applications Used

Application 1 (Irregular verbs)



Through this application, learners were able to study, practice and review simple present, simple past and past participle verb forms. It included 118 irregular verbs, which were divided into eight lessons; however, two lessons out of the eight were access free; through these two lessons, thirty irregular verbs were available for learning and reviewing. Both the written form and pronunciation of these irregular verbs were available. Additionally, a recording session was possible so that learners could record themselves to practice the pronunciation of the target verbs as well as receiving feedback afterwards. The application included a learning session in which students were able to study the verbs at their own pace, then an activity session in which students chose an image that represented the verb; finally, an activity called “memorama”, which is a memory-like game. During the application use, the researcher in charge walked around the classroom to see how students were doing and to answer questions.

Session two

The second session started by asking the participants whether they had continued working on the application at home. Some of them had, since they had enjoyed the previous workshop as

well as working on the previous levels of this application very much; some others did because they thought the application was highly engaging.

The second part of the application was formed by several tabs: “explora” (parts 1 and 2), “habla”, “practica” (parts 1 and 2), and “memorama” (parts 1 and 2). This second part of the application contained fifteen (15) different verbs.

All students focused on working in the corresponding levels. Some of them asked questions about how to pass the level or the correct tense for some of the verbs. They hardly got distracted.

Some of them passed the levels before others. So, the ones who had already passed the level, answered the others’ questions (without mattering that the questions were always asked to the researcher).

This session took 45 minutes, because the researcher considered it beneficial to take all the time needed for students to practice given that they seemed to be enjoying themselves so much.

Application two (Irregular Verbs, Lessons and Tests)



This mobile application consisted of four free basic lessons in which students were able to read and listen to ten (10) irregular verbs (infinitive, simple past and past participle tense form) per lesson. Besides, there was a picture that represented each target verb. Once the students got familiar with the verbs, they were ready to take a test within the application. The test consisted of writing the missing form of the verb given (infinitive, simple past or past participle tense form). Afterwards, if they passed the test, the application took them to the next level (medium level). Once at the medium level, the lesson followed the same procedure but the test consisted of completing two verb forms. Finally, at the most difficult level, students had to complete the three tense forms of the verbs given. For each lesson (Basic, Medium or Hard) verbs were the

same; the only thing that varied was the assessment of the target content.

Session three

The first two lessons of the second application were studied during this session. This day, some students arrived late because they were taking a test for another class. Only eight students out of twelve attended class for this session. When they were in the classroom to start the session, one student did not have the application installed so he worked with the instructor's cellphone. Another student said her cellphone was not charged, so she had to work with another classmate. Despite these situations, students worked on the application without any problem. They reviewed the first two lessons twice in order to make a relation between the irregular verbs with the pictures shown for each of the verbs. Each lesson contained ten (10) irregular verbs: *be, have, do, say, go, can, get, make, know, and think* (in the first lesson) and *take, see, come, find, give, tell, feel, become, put, and mean* (in the second lesson). After studying the verbs in their infinitive, past and past participle forms, students took a test in which they had to complete one of the missing verb forms. Students were actively involved in the use of the application. They asked questions about the pictures and the meaning of some of the verbs. If they failed answering one of the verbs in the test they went back to the lesson and reviewed it in order to get the highest score. While they were practicing and taking the tests, the instructor monitored their work and answered their questions. All of the students participated in the use of the application and obtained high scores on the tests. To finish the class, the researcher reviewed the verbs studied along with the students.

Session Four

During this session, participants got involved in lessons number three and four from the

application given; the verbs studied were: *keep, let, begin, hear, bring, write, sit, stand, lose, pay, meet, learn, lead, understood, speak, read, spend, grow, win, and buy*. Since students were taking a test for another class, it was necessary to wait for each of them to finish it and then join the researcher in charge of the session to start working on the application. Most of the students were using the application; the ones who missed the last class started from lesson one and two to unlock lessons three and four (in order to move from one level to the next, students had to finish each level satisfactorily). One student worked with other students on one mobile phone, and one student worked with the researcher's mobile. Students reviewed the lessons and were engaged in the application while the instructor was monitoring and clarifying doubts about the use of the application for the ones who started to use it that day for the first time. Some of them were asking questions about the meaning of some verbs and they were competing among themselves to finish answering all of the levels first. Additionally, many of them were trying to avoid mistakes in order avoid having to take the test again, so when they had doubts they asked others for help. As they finished the lessons they were allowed to go home. The session had no definite time-limit since it was applied according to how students were finishing their tests. Furthermore, students were so engaged with the applications that they were interested in finishing the following sessions and very excited about the next application, especially since it looked like a game.

Application Three (English Irregular Verbs Balloon Game)



The application consisted of twenty (20) different clouds which contained five (5) irregular verbs each. The pictures above show what the application looked like.

Once they tapped the first cloud to start playing, a square appeared. Students had to tap on the square to start playing. The app provided players with three lives which were the hearts on

the top left-side. On top right-side, the amount of points the player had out of the total points was displayed; these points allowed them to unlock the following cloud.

Students had to start by playing and winning the game from the first cloud in order to unlock the second cloud and so on until they unlocked as many of the clouds as they were able to.

Once they started, verbs popped up randomly. Participants had to tap first the simple past tense form of the verb, then the past participle of the same verb. If the player did not tap the correct form of the verb, the following message popped: “Check the right answer and get ready to catch next answer”; the student hence lost one of his/her the three lives. Moreover, if the player lasted too much time to answer he/she also lost a life and instead of saying INCORRECT! it said: TIME IS OUT! If someone lost the three lives, which were needed to pass to the following cloud, they had to go back to the beginning.

Session 5

The third application was used during this session. Unfortunately, only nine students attended this lesson. When they were in the classroom to start the session, some students expressed that they had already started working with the application because it seemed to be enjoyable. The cooperating teacher shared her Wi-Fi connection so that other two students could download the application in the classroom. One student could not download the application, so she worked on the instructor’s cell phone. Once all students had a cell phone to work with and the application installed, the class started.

Most of the students already knew how to handle the application; the instructor explained how the application worked again, though, just in case. They worked cooperatively. Some of the students were very excited because they were at high levels of the application. Students who had

already used the application started from the last cloud they had unlocked. Students who had never used the application started from the first cloud. Each cloud contained five (5) irregular verbs: *be*, *have*, *do*, *say*, and *make* in the first cloud and *go*, *take*, *come*, *see*, and *know* in the second cloud. Students participated actively in the use of the application and none of them showed to be bored; on the contrary, they wanted to be the one who reached the highest level in the game.

They asked questions about the meaning of some of the verbs and about their past form. If they lost their three lives, they had to start the game over, as stated above. The instructor also helped one of the students who was physically impaired because she had a congenital malformation on one of her arms. This student said the past and the past participle forms of the verbs and the instructor tapped the balloons for her. All of the students participated in the use of the application and unlocked three clouds or more. To finish the class, the researcher asked students how they had felt while they were using the application. Most of the comments were positive. A comment that can be considered as negative was that the player had to wait too long until the correct form of the verb in the simple past or the past participle appeared on the screen. However, those incorrect forms were traps, designed to test how much the students know about the simple past and the past participle forms of the irregular verbs.

10.6 Appendix 6

Verb List

Verb (Infinitive)	Past simple	Past participle
Be	Was/were	Been
Beat	Beat	Beaten
Begin	Began	Begun
Bend	Bent	Bent
Bind	Bound	Bound
Blow	Blew	Blown
Break	Broke	Broken
Bring	Brought	Brought
Build	Built	Built
Cast	Cast	Cast
Catch	Caught	Caught
Choose	Chose	Chosen
Come	Came	Come
Cost	Cost	Cost
Cut	Cut	Cut
Do	Did	Done
Draw	Drew	Drawn
Drink	Drank	Drunk
Drive	Drove	Driven
Eat	Ate	Eaten
Fall	Fell	Fallen
Feel	Felt	Felt
Find	Found	Found

Fly	Flew	Flown
Get	Got	Gotten
Give	Gave	Given
Go	Went	Gone
Grow	Grew	Grown
Have	Had	Had
Hear	Heard	Heard
Hide	Hid	Hidden
Hold	Held	Hold
Hurt	Hurt	Hurt
Know	Knew	Known
Leave	Left	Left
Lend	Lent	Lent
Let	Let	Let
Lie	Lay	Lain
Light	Lit	Lit
Lose	Lost	Loosen
Make	Made	Made
Meet	Met	Met
Overcome	Overcame	Overcome
Pay	Paid	Paid
Put	Put	Put
Read	Read	Read
Ring	Rang	Rung
Rise	Rose	Rosen
Run	Ran	Run
Say	Said	Said

See	Saw	Seen
Sing	Sang	Sung
Sink	Sank	Sunk
Sit	Sat	Sat
Sleep	Slept	Slept
Speak	Spoke	Spoken
Spend	Spent	Spent
Spread	Spread	Spread
Stand	Stood	Stood
Steal	Stole	Stolen
Stick	Stuck	Stuck
Sweep	Swept	Swept
Swim	Swam	Swum
Swing	Swung	Swung
Take	Took	Taken
Teach	Taught	Taught
Tear	Tore	Torn
Think	Thought	Thought
Understand	Understood	Understood
Undertake	Undertook	Undertaken
Wake	Woke	Woken
Write	Wrote	Written

10.7 Appendix 7

Didactic plans used with the control group

Institution: Marco Tulio Salazar National High School.

Group: 11-1

Level: eleventh.

Date: October 11, 2016.

Course: English.

Time: 1:45

Teacher: Vivian Garita Muñoz.

Cognitive Target: Past Participle Tense and Simple Past Tense.

General Objective: To know the correct form of the past participle tense and the simple past tense.

Approach: Cooperative Learning Approach.

Specific Objectives	Content and Language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
<p>Activity: Identifying regular and irregular verbs out of a list of mixed up verbs by classifying them into columns.</p> <p>Listening and Writing</p> <p>1.Learning how to use the irregular verbs in affirmative as well as in negative simple past tense sentences by a workshop section to become familiar with a specific list of</p>	<p>Irregular verbs: make, stand, meet, forget, hear, get, lose, fly, buy, say, run, sit, swim, find, sing. cast hide swing blow bend wake stick sweep undertake shut</p>	<p>Warm Up. Students try to classify the 15 verbs from the list into regular and irregular verbs, to be corrected with the teacher's help, at the end. Later, students are given printed empty columns to correctly copy the verbs on them.</p> <p>1.a) First, SS review vocab needed within simple past tense sentences. For example: yesterday, this morning, last night/month/year, two days ago, etc. Second, SS are explained how to conjugate simple</p>	<p>15</p> <p>25</p>	<p>Students identify the regular and irregular verbs and classify them, correctly.</p> <p>Students write their own affirmative and negative simple past tense sentences.</p> <p>Students identify mistakes in affirmative and negative simple past tense sentences, correctly.</p>	<p>Board,</p> <p>Notebook.</p> <p>Copies.</p> <p>Notebook.</p>

<p>verbs and vocabulary.</p> <p>Reading and Writing.</p> <p>2. Identifying key information in simple past tense by answering questions based on short texts.</p>		<p>past affirmative sentences. Finally, SS are asked to write the missing either affirmative or negative simple past tense sentences.</p> <p>1.b) Students are given a copy with a list of 20 affirmative and negative simple past tense sentences. SS are asked to identify the mistakes in 16 of them, and to correct such mistakes.</p> <p>1.c) SS are asked to listen to the verbs read by the teacher and write them in the same order on their notebooks.</p> <p>2.a) SS are asked to work in pairs. Then, they are given the same short text and 5 questions to answer based on the reading. Finally, the pairs of SS write their answers on the board to be checked by the other students and the teacher.</p>	<p>20</p> <p>15</p> <p>30</p>	<p>Students write the verbs correctly.</p> <p>Students answer the questions correctly.</p>	
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Institution: Marco Tulio Salazar National High School.

Group: 11-1

Level: eleventh.

Date: October 18, 2016.

Course: English.

Time: 1:45

Teacher: Vivian Garita Muñoz.

Cognitive Target: Past Participle Tense and Simple Past Tense.

General Objective: To know the correct form of the past participle tense and the simple past tense.

Approach: Cooperative Learning Approach.

Specific Objectives	Content and language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
<p>Warm Up Activity Identifying verbs out of a list of words.</p> <p>Listening. 1. Identifying verbs out of a list of words by a listening activity.</p> <p>Speaking/Writing 2. Applying the simple past tense rules by creating sentences.</p> <p>Reading/ Writing 3. Applying the simple past tense rules when answering questions by a reading comprehension activity.</p>	Grow	<p>Warm Up. Students pick up words written on pieces of cardboard to stick them on the board, and classify them into VERBS or non-verbs.</p>	10	Students correctly identify the verbs.	Pieces of cardboard.
	Come				
	Read	<p>1. Students listen to the teacher read a list of words. Then, students stand up when they listen to a verb and sit down when they listen to a non-verb.</p> <p>2. Students work in pairs to create a dialogue in which they use from 5 to 10 simple past tense verbs. Later, students read their conversation in front of the other students.</p> <p>3.a. Students look for and write the simple past tense of</p>	15	Students correctly apply the simple past tense when creating their dialogues.	Teacher's voice.
	Teach				
Give					
Think					
	Become	<p>1. Students listen to the teacher read a list of words. Then, students stand up when they listen to a verb and sit down when they listen to a non-verb.</p> <p>2. Students work in pairs to create a dialogue in which they use from 5 to 10 simple past tense verbs. Later, students read their conversation in front of the other students.</p> <p>3.a. Students look for and write the simple past tense of</p>	30	Students correctly write all the simple past-simple present tense verbs.	Notebook, pencil, eraser.
	Leave				
	Feel				
	Put				
	Bring				
	Begin				
	Let				
	Pay				
	Speak				
	Lend				
	Sink	<p>1. Students listen to the teacher read a list of words. Then, students stand up when they listen to a verb and sit down when they listen to a non-verb.</p> <p>2. Students work in pairs to create a dialogue in which they use from 5 to 10 simple past tense verbs. Later, students read their conversation in front of the other students.</p> <p>3.a. Students look for and write the simple past tense of</p>	15	Students correctly provide the simple past tense written answer.	English-Spanish Dictionary/ English Spanish Online Translator.
	Overcome				
	Light				
		3.a. Students look for and write the simple past tense of			Copies, pencil, eraser.

		the list for today's class.			
		3.b. Students read a text. Then, they provide the correct answer to the questions, based on the reading.	35		

Institution: Marco Tulio Salazar National High School.

Group: 11-1

Level: eleventh.

Date: October 25, 2016.

Course: English.

Time: 1: 45

Teacher: Vivian Garita Muñoz.

Cognitive Target: Past Participle Tense and Simple Past Tense.

General Objective: To know the correct form of the past participle and the simple past tenses.

Approach: Cooperative Learning Approach.

Specific Objectives	Content and language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
Warm Up Activity Identifying verbs out of a list of words.	Lie Live Fall Build Use Escape Recognize Draw Catch Have Be Give Go Know See	Warm Up. Students –in groups of 3- identify the past participle verbs out of a set of words written on a cardboard.	10		Cardboard Markers Board
Listening. 1. Identifying a specific verb out of a list of them by means of a listening activity.		1. Students pay close attention to the teacher and identify the verbs read by the teacher.	15	Students identify verbs correctly.	
2. Identifying		2. Students properly identify the simple past	15	Students identify simple past tense sentences	

simple past tense sentences by listening to a set of sentences.		tense sentences out of groups of sentences. Example: a.She went to the park. b.She has a pencil.		properly.	
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Institution: Marco Tulio Salazar National High School.

Group: 11-1

Level: eleventh.

Date: November 1, 2016.

Course: English.

Time: 1: 45

Teacher: Vivian Garita Muñoz.

Cognitive Target: Past Participle Tense and Simple Past Tense.

General Objective: To know the correct form of the past participle tense and the simple past tense.

Approach: Cooperative Learning Approach.

Specific Objectives	Content and language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
Warm Up Activity Identifying verbs out of a list of words.	do take write choose drink eat begin break	Warm Up. Students are going to pick up words written on pieces of cardboard to stick them on the board, and classify them into VERBS and non-verbs.	10	Students identify verbs properly.	Cardboard Markers Board
Listening. 1. Identifying a specific verb out of a list of them by means of a listening activity.	speak fall spread sleep	1. Students pay close attention to the teacher and identify the verbs read by the teacher.	15		

<p>2. Identifying simple past tense sentences by listening to a set of sentences.</p> <p>Speaking Applying simple past tense by saying sentences.</p>	<p>cost</p> <p>beat</p> <p>bind</p> <p>steal</p> <p>tear</p> <p>hurt</p> <p>ring</p>	<p>2. Students properly identify the simple past tense sentences out of groups of sentences. Example: a. She went</p>	15	<p>Students identify simple past tense sentences properly.</p>	
		<p>3. Students make a circle and play hot potato. The student who gets the ball says something he/she did last week using simple past tense.</p>	15	<p>Students apply simple past tense in sentences correctly.</p>	

Institution: Marco Tulio Salazar National High School.

Group: 11-1

Level: eleventh.

Date: October 2016.

Course: English.

Time: 1: 45

Teacher: Vivian Garita Muñoz.

Cognitive Target: Past Participle Tense and Simple Past Tense.

General Objective: To review correct form of the past participle tense and the simple past tense.

Approach: Cooperative Learning Approach.

Specific Objectives	Content and language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
<p>Listening. 1. Identifying regular and irregular verbs by means of a listening activity.</p>	<p>do</p> <p>take</p> <p>write</p> <p>choose</p> <p>drink</p> <p>eat</p> <p>begin</p> <p>break</p> <p>speak</p>	<p>Warm Up. Students are divided into two groups. Each group chooses a volunteer to go in front of the class and take an image and then say the verb it is representing and the</p>	10	<p>Students identify regular and irregular verbs accurately.</p>	<p>Markers</p> <p>Board</p> <p>worksheets</p>

<p>Speaking</p> <p>2. Applying simple past tense conversations by performing a role play.</p> <p>Reading</p> <p>4. Reading a passage in simple past tense and using the correct verb form by fill in the blanks.</p> <p>Writing</p> <p>5. Writing sentences using simple past tense.</p>	<p>fall spread sleep cost beat bind steal tear hurt ring</p>	<p>past and past participle form of that verb.</p> <p>1. Students listen to some verbs said by the teacher and they raise their hands if the verb is an irregular verb and keep their hand on the table if it is a regular verb.</p> <p>2. Students are given a worksheet that has a chart with three categories: present, past and past participle. Then they pay attention to the T reading short sentences with verbs in present, past and past participle tense and write the number of each sentences in the chart according to what they listened to.</p> <p>3. Students in groups create a role play about their last vacation using simple past tense.</p> <p>4. Students are given a set of sentences with verbs in present, past and past participle tense. Then, they write the correct verb form next to each sentence.</p> <p>5. Students are asked</p>	<p>10</p> <p>20</p> <p>30</p> <p>10</p>	<p>Students identify simple past tense in sentences.</p> <p>Students identify the correct verb past forms in sentences.</p> <p>Students read and complete sentences using simple past.</p> <p>Students write correct sentences using simple past tense.</p> <p>Students apply the past participle tense correctly by completing sentences.</p>	
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		to fill in the blanks in a passage from a worksheet given using simple past tense with the verbs in parentheses.	10		
		6. Students in worksheet given complete sentences with the correct verb using past participle tense.	20		

10.8 Appendix 8

Didactic plans used with the experimental group

Institution: Marco Tulio Salazar National High School.

Level: Tenth.

Date: October 4, 2016.

Group: 10-1

Researcher in charge: Eduardo Mora Abdallah

Time: 30 min.

Cooperator Teacher: Vivian Garita Muñoz.

Cognitive Target: Perfect Present Tense and Simple Past Tense.

General Objective: To identify the simple past and past participle forms.

Specific Objectives	Content and Language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
Identifying the simple past and past participle of irregular verbs by using a mobile app.	Verbs: Be Have Go Take Drink Eat Do See Sleep Read Come Give Write Put Speak Hear Swim Sing Run	Students are introduced how to use the Irregular Verbs App. Students launch the app and go a section called “explora” in order to study the verbs displayed through pictures. Then students click a section called “practica” where some pictures appear and choose the one that relates to the verb displayed on the screen. Finally, students click on a section called “Memorama” which consists of a matching memory game like. They pair up pictures related to simple past verbs.	5 min. 10 min. 15 min 15 min	Students Identify the simple past and past participle of irregular verbs. Students correctly pick up the past and past participle of the verbs through selecting pictures.	Mobile app (“Irregular Verbs”) and cellphone.
Recognizing the simple past and past participle by looking a images related to past actions					

recognize the pronunciation of the simple past and the past participle of irregular verbs.		<p>times as necessary.</p> <p>After Vocab has been reviewed, SS click on the “Practica” section, which is about selecting the image that best relates to the simple present tense verb SS hear.</p> <p>Finally, SS click on the “Memorama” section (parts 1 and 2); it is a memory game matching of simple past and past participle verbs.</p>	<p>5 min.</p> <p>5 min</p>	of irregular verbs.	
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Institution: Marco Tulio Salazar National High School.

Level: Tenth.

Date: October 18th, 2016.

Group: 10-1

Researcher in charge: Maria Fernanda Ramirez Valenciano

Time: 30 m.

Cooperator Teacher: Vivian Garita Muñoz.

Cognitive Target: Perfect Present Tense and Simple Past Tense.

General Objective: To know the correct form of the perfect present tense (Past Participle Form) and the simple past tense.

Specific Objectives	Content and Language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
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<p>Identifying the simple past and past participle of irregular verbs by using a mobile app.</p>	<p>Lesson 3: Keep, let, begin, hear, bring, write, sit, stand, lose, pay.</p>	<p>Students review the irregular verbs and their tense by clicking on the “LESSON 3” part. Each verb has a picture and the infinitive, past and past participle form of the verb. Students review the Lesson 3 twice.</p>	<p>10 min.</p>	<p>Students Identify the simple past and past participle of irregular verbs.</p>	<p>Mobile app (“Irregular Verbs”) and cellphone.</p>
<p>Recognizing the simple past and past participle by completing a test on a mobile application.</p>	<p>Lesson 4: Meet, learn, lead, understood, speak, read, spend, grow, win, buy.</p>	<p>Students click on “TEST 3” and fill in the blanks with the missing verb form. The teacher supports students if they needed.</p>	<p>5 min</p>	<p>Students complete the “TEST 3” part on the mobile app.</p>	
<p>Identifying the simple past and past participle of irregular verbs by using a mobile app.</p>		<p>Students work on “LESSON 4”. Students review the verbs and their tense form. Students review Lesson 4 twice.</p>	<p>10 min</p>	<p>Students identify the tense forms of the verbs in Lesson 4 from the mobile application.</p>	
<p>Recognizing the simple past and past participle by completing a test on a mobile application.</p>		<p>Students click on “TEST 4” and fill in the blanks with the correct verb form. The teacher supports students if they needed.</p>	<p>5 min</p>	<p>Students complete the “TEST 4” part on the mobile app.</p>	

Institution: Marco Tulio Salazar National High School.

Level: tenth.

Date: October 25, 2016.

Group: 10-1

Researcher in charge: Karen Zamora Solano

Time: 30 min

Cooperator Teacher: Vivian Garita Muñoz.

Cognitive Target: Perfect Present Tense and Simple Past Tense.

General Objective: To know the correct form of the perfect present tense (Past Participle Form) and the simple past tense.

Specific Objectives	Content and Language Examples	Mediation Activities	Time	Evaluation of Learning Outcomes	Materials
<p>Learning how to use the mobile application “irregular verbs” by a workshop section in order to become familiar with how the app works.</p> <p>Identifying the simple past and past participle of irregular verbs by using a mobile app.</p>	<p>Irregular verbs:</p> <p>Lesson 1:</p> <p>Be, Have, Do, Say, Go, Can, Get, Make, Know, Think</p>	<p>Researcher in charge introduces the app to be used. It is explained how the app works and how it will be used.</p> <p>Students start reviewing the irregular verbs by clicking on the “LESSON 1” part. There the first ten verbs are shown. Each verb has a picture and the written form of the verb. Students review the lesson twice.</p>	<p>5 min</p> <p>10 min.</p>	<p>Students learn how to use the mobile application “irregular verbs” by a workshop section in order to become familiar with how the app works.</p> <p>Students Identify the simple past and past participle of irregular verbs.</p>	<p>Mobile app (“Irregular Verbs”) and cellphone.</p>

<p>Recognizing the simple past and past participle by completing a test on a mobile application.</p>		<p>Students click on “TEST 1” and complete the missing verb form required. Teacher helps them clarify doubts if necessary.</p>	<p>5 min</p>	<p>Students complete the “TEST” part on the mobile app.</p>	
<p>Identifying the simple past and past participle of irregular verbs by using a mobile app.</p>	<p>Lesson 2: Take, See, Come, Find, Give, Tell, Feel, Become, Put, Mean</p>	<p>Students continue using the application in “LESSON 2”.</p>	<p>10 min</p>	<p>Students identify the different tense forms of the verbs in lesson 2 from the mobile application.</p>	
<p>Recognizing the simple past and past participle by completing a test on a mobile application.</p>		<p>Students review the verbs and their different tense form and also the pictures of each verb. Students review lesson 2 twice.</p>			
<p>Recognizing the simple past and past participle by completing a test on a mobile application.</p>		<p>Students click on “TEST 2” and complete the missing verb form required. Teacher helps them clarify doubts if necessary.</p>	<p>5 min</p>	<p>Students identify the different tense forms of the verbs in lesson 2 from the mobile application.</p>	