Learning trough Playing in CLIL: An Empirical Study of the Impact of Game-Based Activities on Primary Students' Academic Performance in the Subjects of Social Sciences and English

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LEARNING THROUGH PLAYING IN CLIL: AN EMPIRICAL STUDY OF THE IMPACT OF GAME-BASED ACTIVITIES ON PRIMARY STUDENTS´ ACADEMIC PERFORMANCE IN THE SUBJECTS OF SOCIAL SCIENCES AND ENGLISH

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Abstract

This study examined the impact of game-based activities on Primary students´ academic performance in the subjects of Social Sciences, namely History, and English as a Foreign Language (henceforth EFL). In order to fulfil this goal, a quasi-experimental research study was carried out in a state bilingual Primary school located in the Northern area of Madrid. A pre post-test design in the form of academic performance test was used to analyse whether game-based activities could improve History and EFL academic achievement. 49 six graders with high cultural diversity and different EFL levels participated in this study divided into control and experimental groups. The results showed that both groups improved significantly and, even though the experimental group did not outperform the control in the post-test, they got higher gainings than the control in History and EFL. These findings raised interesting issues in the use of Game Based Learning (henceforth GBL) within the Content and Language Integrated Learning (henceforth CLIL) context. Valuable pedagogical implications and future threads of research are also provided to be taken into consideration by researchers, game designers and educators.

Key words: Primary Education; Content and Language Integrated Learning (CLIL); Social Sciences; Game Based Learning (GBL); academic performance; English as a Foreign Language (EFL)

Resumen

Este estudio examina el impacto de actividades basadas en juegos en el desempeño académico de estudiantes de Primaria en la asignatura de Ciencias Sociales, concretamente historia, e Inglés como Lengua Extranjera (ILE). Para lograr este objetivo, se llevó a cabo un estudio cuasi-experimental en un colegio público bilingüe situado en la zona norte de Madrid. Se utilizó un diseño de pre y post-test en forma de test de desempeño académico para analizar si las actividades basadas en juegos mejorarían los logros académicos de historia e ILE. 49 estudiantes de sexto curso con diversidad cultural alta y diferentes niveles de ILE participaron en este estudio divididos en los grupos control y experimental. Los resultados mostraron que los dos grupos mejoraron significativamente y, aunque el grupo experimental no superó al

control en el post-test, mostraron mayores mejoras en su desempeño académico dado que obtuvieron ganancias más altas en historia e ILE. Estos resultados tienen implicaciones didácticas sobre el uso del Aprendizaje Basado en Juegos (en adelante ABJ) en el contexto de Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (en adelante AICLE). Se aportan valiosas implicaciones pedagógicas y líneas de investigación para ser tenidas en cuenta por investigadores, diseñadores de juegos y educadores.

Palabras clave: Educación Primaria; Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE); ciencias sociales; Aprendizaje Basado en Juegos (ABJ); desempeño académico; Inglés como Lengua Extranjera (ILE)

1. Justification of the Study

During the last decades, multilingualism has become one of the main foci of interest and regulation in educational contexts at a regional, national and European level. In Spain, the `Ley Orgánica 1/1990, de 3 de octubre, de Ordenación General del Sistema Educativo´ introduced the study of EFL in the Primary Curriculum in 1990. Six years later, in 1996, the first bilingual programme was implemented in Madrid in a partnership with the British Council (Guadamillas & Alcaraz, 2017). Then, European agreements and recommendations began to arise stating that European citizens should know at least two foreign languages and this learning should start from a very early age (Barcelona European Council, 2002; European Council, 2014). In the last decade, bilingual programmes have grown in popularity and have been implemented on a large scale in all the schools around Spain under the mandate and criteria of each regional government.

Despite these regulation differences concerning the implementation and degree of the bilingual program as well as the subjects to be taught through EFL in each Autonomous Community, all of them use the same bilingual methodology, namely, CLIL. This bilingual teaching methodology is based on constructivism and experiential learning since it focuses on problem solving and knowing how to do things in the target language (henceforth TL) (Marsh, 2000). Thus, the TL is learnt while using it in a natural context as in mother tongue acquisition. CLIL emerged in the 90s as a consequence of the existing ineffective standard language learning approaches used (Coyle, Holmes & King, 2009), so its use has been highly encouraged by European authorities (Commission of European Communities, 2003). Within the Spanish schools, various subjects such as Music, Art or Physical Education but especially Natural and Social Sciences are taught using the English language. Therefore, both content knowledge and language are learnt simultaneously in a natural context, without losing subject matter knowledge and acquiring the same concepts and content as in monolingual lessons as empirical evidence has demonstrated (e.g. Alonso, Grisaleña & Campo, 2008; Madrid, 2011; Mattheoudakis, Alexiou & Laskaridou, 2014; Stehler, 2006; Surmont et al.2016; Van De Craen, Ceuleers & Mont, 2007, all cited in Martínez, 2020). CLIL has also been highlighted as a flexible methodology, which adapts to the context and to the students´ needs at the same time it allows room for introducing and using other language-supportive methodologies (Coyle *et al.*, 2009; Coyle *et al.*, 2010; Marsh, 2000). Along the same line, the same authors have

emphasized the inherent inclusive nature of CLIL since it is accessible to everyone no matter their socioeconomic status.

Nevertheless, after the widespread implementation of bilingual programmes in Spain and the first results obtained, a dichotomous debate about their effectiveness and negative side effects has also emerged. Many reports, studies and educators have claimed less delivery of and worse learning of academic content, especially in Science subjects as well as lack of significant English improvement than in monolingual teaching despite all the hours dedicated to EFL (Acción Educativa, 2017; Dallinger, Jonkmann, Hollm & Fieg, 2006; Fernández-Sanjurjo, Fernández-Costales & Arias, 2017; Martín-Arroyo, 2017; Montero, 2017). The lack of teacher training as well as the scarcity of available resources is another issue which emerges in the debate when analysing the effectiveness of bilingualism. Furthermore, one of the main concerns and criticisms about bilingualism is the segregation provoked in schools due to the students´ socioeconomic, cultural and educational background that has not been considered in up to date CLIL research literature (Aguirre, 2019; Martínez, 2020; Montero, 2017). More specifically, it has been found that factors such as the parental educational level as well as their socioeconomic status negatively affect the students´ outcomes in the subjects taught in English (Anghel, Cabrales & Carro, 2016; Fernández-Sanjurjo, Arias & Fernández-Costales, 2018; Martínez, 2020). This is due to the lack of support that students from these contexts receive from their parents since they do not have either the knowledge or the economic resources to provide them with help.

From the above it can be derived that CLIL is a successful method for learning content and language but its effectiveness, however, may be limited by contextual factors. Hence, it is necessary to combine CLIL with other methodological tools to overcome the difficulties arising when learning Science subjects in English. In this respect, one suitable methodology to be used in combination with CLIL may be GBL, which is also based on constructivism and experiential learning (Franciosi, 2011 cited in York, 2020). GBL has gained relevance in areas such as English and Sciences at different educational levels due to its effectiveness in dealing with complex concepts in a playful and repetitive manner, and its philosophy of `learning through a grammar of doing and being´ (Squire, 2006 cited in Dourda, Bratitsis, Griva & Papadopoulo, 2014, p. 245). Despite all the aforementioned, few studies have investigated the impact of GBL on students´ English and Social Science academic performance in CLIL settings at a primary level and in such contexts. Hence, this study attempts to contribute to the existing research on CLIL

in Primary Education by exploring the effectiveness of GBL in the Social Sciences classroom of a medium-low socioeconomic school with a high degree of cultural diversity. In order to do this, a pre and post-test quasi-experimental research design was carried out so as to analyse the impact of game-based learning on the academic achievement of Primary students working in a CLIL context in two different subjects: Social Sciences and English.

For this purpose, this paper is structured as follows: first, the state of the art and theoretical framework regarding GBL and CLIL is examined and, the objectives, research questions and hypothesis are presented; secondly, the methodology is described in detail; after that, the results obtained are presented and explained, and later discussed comparing them with other similar research studies; finally, some conclusions are drawn including pedagogical implications and future threads of research.

2. State of the Art and Theoretical Framework

2.1. Play and Games as a Means of Learning

Playing has an essential role in children´s physical, social, emotional and cognitive development (Plass, Homer & Kinzer, 2015). It starts at the beginning of a child's life with the act of breastfeeding and it is present during the rest of their lives, especially at early ages (Gómez, 2018). Therefore, children spend a lot of time playing during their lives, changing and adapting the type of play to their ages and interests in consonance with their cognitive development as stated by the well-known psychologist Piaget (1962 cited in Plass *et al.*, 2015). According to Piaget, children´s play becomes more abstract, symbolic and social as they mature and go through various cognitive developmental stages. In other words, and in agreement with Jančič & Hus (2018), children grow and learn through playing. Hence, play moves from being a mere playful activity to being one of the means of learning which most affects the development of skills and competences through children´s own experience, ensuring holistic development. The knowledge of this has led to a growing interest in introducing games within different educational level contexts. As a result, there is an extensive thread of research that demonstrates the positive effects of didactic games at different levels and in different disciplines, considering them as effective pedagogical tools in the teaching and learning process (Jančič & Hus, 2017).

2.2. Social Sciences, English and Games within the Primary Curriculum

Derived from the above, various educational authorities have included within their methodological recommendations the act of playing and use of games as essential learning strategies and methods. This is the case of the Spanish National Primary Curriculum (Real Decreto 126/2017, de 28 de febrero, por el que se establece el currículo básico de la Educación Primaria) (henceforth Real Decreto 126/2017) that encourages the use of games in subjects such as Physical Education, Music, Language and Literature, Maths or English. At the same time, these recommendations are also included and developed in each autonomic primary curriculum (see e.g. Decreto 89/2014, de 24 de julio, del Consejo de Gobierno, por el que se establece para la Comunidad de Madrid el Currículo de la Educación Primaria) (henceforth Decreto 89/2014). In this respect, it is worth mentioning the case of English in which the use of games is highlighted as a means of learning within a contextualized and natural context, especially within the early stages of Primary. In the same vein, the Common European Framework of Reference for Languages points out: `The use of language for playful purposes often plays an important part in language learning and development´ (Council of Europe, 2002, p. 55). Indeed, it also includes the development of leisure skills as part of language acquisition related to the ability of effectively carrying out leisure activities such as playing (Council of Europe, 2002).

Regarding Social Sciences within the Spanish Primary Curriculum, it is worth explaining that it is composed of different social disciplines such as History and Geography and these are divided into blocks of contents (Real Decreto 126/2017). In agreement with Carretero & Montanero (2008 cited in Evaristo, Navarro, Vega & Nakano, 2016), the main aims of teaching History at Primary Education is for the students to build their personal identity as well as to construct their own knowledge about the historical events. On the one hand, the construction of personal identity refers to the generating of a patriotic sense of belonging so as to build an active citizenship identity within their country as stated in Real Decreto 126/2017. In order to do so, relevant events that involve historical characters are addressed in class as well as their impact in the present and in the future (Pagès & Santisteban, 2010). Similarly, the construction of their own knowledge about the historical events implies logical thinking skills (Trepat & Comes, 2002), namely, it promotes the development of historical thinking skills such as succession, simultaneity and duration as claimed in the Real Decreto 126/2017. In spite of these specifications, there are not explicit pedagogical recommendations, only the use of

specific resources and ICT tools regarding the History block. It could be intuited that it aims implicitly at experiential and active learning since it places students at the centre of learning constructing their own personal identity and historical knowledge. However, the methodological recommendations ultimately stem from the autonomous legislation and, some communities state them and others do not, as found by Guadamillas & Alcaraz (2017) in their analysis carried out regarding Primary Bilingual regulations.

Taking into account the aforementioned, from this there follows the consideration that: on the one hand, Educational laws at Primary level recognise the importance of play and games as pedagogical educational strategies. And, on the other hand, that this is mostly emphasised at the first levels of Primary and, in only some subjects, possibly underestimating the effectiveness of play and games at the highest levels and among all the subjects. In subjects such as Social Science, there are no methodological recommendations of using play and games so as to enhance learning within a natural context, even though it tends to be taught using English as the vehicular language in CLIL contexts.

2.3. Gamification vs. Game-Based Learning

At this point, it is necessary to explain that play or games themselves are not methodologies but resources or techniques that can be used within the teaching and learning process (Mosquera, 2019). However, gamification, game-based learning and serious games are considered educational methodologies. These can be defined as active, experiential methodologies related to games and their dynamics that aim at motivating students and making them the protagonist of their learning with the provision of learning agency, reasons why these methodologies tend to be confused (Ibargoyen, 2018). The main issues arise when trying to define gamification as well as when comparing it with game-based learning since there is still some confusion and lack of agreement (Alsawaier, 2018). In general terms, the literature reviewed points out that gamification uses game elements and principles rather than specific games within non-ludic contexts whereas GBL focuses on specific (video)games as a vehicle of the learning and/or consolidation of specific educational content (e.g. Ibargoyen, 2018; Mosquera, 2019). Apart from the definition, there are more differences between GBL and gamification, which are summarised in *Table 1*.

Table 1

Summary of Differences between Gamification and Game-Based Learning

Gamification	*Game-Based Learning*
Uses game *elements and principles* such as progress bars, points, badges or rewards within non-ludic contexts (Ibargoyen, 2018; Mosquera, 2019)	Uses *entire* already made (video) games and adapts these or new (video) games are created *Ad Hoc* as vehicle for educational purposes to meet learning outcomes within educational contexts (Ibargoyen, 2018; Mosquera, 2019)
Focus on modifying and/or promoting desired attitudes and behaviours towards learning (Ibargoyen, 2018; Mosquera, 2019).	Focus on complex concept learning and skills development, critical thinking and problem solving which must be transferable beyond the game (Ibargoyen, 2018; Mosquera, 2019)
Learning takes places with the promotion of positive attitudes and behaviour toward unappealing or difficult content (Martín, 2019)	Learning takes place from playing the game (Isaacs, 2015)
The game elements and principles (rules, levels, avatars, leaderboards, etc.) are adapted to the content (Mosquera, 2019)	The content and skills are adapted to the game (Mosquera, 2019)
It is mostly digital-based with the use of ICT tools and platforms (Ibargoyen, 2018) but it can also be analogue (Kapp, 2012)	There are digital games or analogue games (board games card games, role-playings, etc.) (Jančič & Hus, 2018; York, 2020)
It is considered as a *process* (Werbach, 2014) Long-term engagement during the whole gamification process (Alsawaier, 2018)	It is considered as a *product* (Werbach, 2014) Short-term engagement during the game duration (Alsawaier, 2018)
Promotes extrinsic motivation (to obtain reward) and intrinsic (after playing) (Kapp, 2012) Collaborative: individual completion of the levels to progress without losing or winning and repeating (Mosquera, 2019)	Promotes extrinsic motivation (to fulfil objectives and win) and intrinsic (during playing) (Goiri, 2015) Competitive: there are rules to follow and objectives to fulfil so there are winners and losers (Mosquera, 2019)

Note: own elaboration

Finally, concerning serious games, these are related to GBL and can be considered a variation since these arise from the combination of GBL with simulation (Mosquera, 2019). In serious games, virtual scenarios connected to the reality are created which allow students to identify themselves so as to solve real problems in context (López, 2016 cited in Cabero-Almenara & Ortiz, 2020). These are commonly and effectively used within educational contexts in the languages field so as to learn and develop communicative skills within a controlled and secure trial-error environment (Cabero-Almenara & Ortiz, 2020; Educación 3.0; López, 2016 cited in Cabero-Almenara & Ortiz, 2020).

Just as there are different views and lack of agreement found when defining and comparing gamification and GBL, there are opposing opinions among authors and educators

who defend one above the other. The arguments that place gamification above GBL focus on the differences between them. Gamification defenders state that it allows students to get involved from the beginning to the end of the learning process, creating a more positive long-lasting effect on motivation, engagement and behaviours; and it uses different game elements instead of sticking to specific games (e.g. Alsawaier, 2018). By contrast, those who support GBL go beyond the differences themselves. York (2019) questions gamification since according to his experience as a language student, it provides false promises when it tries to hide the reality that classes or determined unappealing content are compulsory by sugaring them. Besides, other criticisms of gamification are linked to the lack of consideration of other key factors such as the sociocultural dimension (Plass *et al.,* 2015). Lastly, some criticisms can also arise since GBL promotes competition and gamification collaboration and it may affect students´ academic performance and social relationships. Nevertheless, Lin *et al.* (2017 cited in Vu & Fye, 2020) found that cooperative and collaborative GBL significantly increased academic performance. On the sidelines of the debate, there are other authors and educators who claim that, despite the differences among them, these methodologies can be used individually or combined to gain a better result; it all depends on the desired outcomes and learning objectives (e.g. Ibargoyen, 2018; Martín, 2019; Mosquera, 2019).

2.4. Game Based Learning within CLIL Contexts: English and Social Sciences

During the last decades, GBL learning has gained relevance in different fields such as English and Science at different educational levels. Researchers and educators have drawn attention to the benefits of introducing games within the educational context based on the affirmation that learning takes place naturally while playing and, as emphasised by Gee: `you cannot play a game if you cannot learn it´ (2007, p. 3 quoted in Li & Tsai, 2013). From this follows the consideration that educational games used within GBL are effective experiential learning methods (Jančič & Hus, 2017). Indeed, the benefits of GBL have been examined at different educational levels and dimensions such as the emotional, cognitive and social as literature review studies have demonstrated in Social Sciences (e.g. Hainey et al.,2014; Herrero, Torralba-Burrial & del Moral, 2020; Li & Tsai, 2013) and English (Acquah & Katz, 2020; Cabero-Almenara & Llorente, 2020; Thompson & Guillern, 2020).

GBL started to be introduced within the EFL and Social Sciences contexts as alternatives to the ineffective standard approaches used, in an attempt to contextualize learning and

promote a more playful and motivating learning environment (Dourda et al.,2014; Liu & Tsai, 2013). In this sense, GBL provides a positive and playful and, thus, motivating learning environment in EFL and Social Sciences. This is due to the fact that children are used to playing and they feel more comfortable and secure taking risks when playing than in traditional classrooms. In the EFL classroom, this is essential for students to acquire the language due to the fact that, according to Krashen and his Affective Filter Theory (1982), the affective state of learners acts as a filter allowing or blocking the input. In the case of Social Sciences in CLIL settings, the affective and emotional dimension is even more relevant since, it is not only the language content, but also the subject content that could be blocked from learning. This could explain the low academic performance in English and Science denounced by researchers and educators in CLIL settings (Acción Educativa, 2017; Dallinger *et al.*, 2006; Fernández-Sanjurjo, *et al.*, 2017; Martín-Arroyo, 2017; Montero, 2017). Similarly, GBL is inclusive since it allows the use of both digital and analogue games such as card or board games, the creation of new games *Ad Hoc* or the adaptation of existing games, depending on the school and educators´ resources and students´ needs (Liu & Cheng, 2013). In this respect, there are opposing views since some educators have reported that analogue games such as card and board games are more inclusive because they better adapt to the students´ level and pace when they are playing whereas digital can provoke overload (York, 2020). However, in both cases, GBL promotes the participation, interest and engagement of all the learners, even those that are less extrovert and irrespective of their academic level or knowledge (Öztürk & Korkmaz, 2020). Hence, in agreement with Öztürk & Korkmaz (2020) and as some studies evidenced, GBL ensures a positive, inclusive and secure learning environment that promotes learning.

All the aforementioned affects positively the cognitive dimension, that is, when GBL is used to reinforce and support learning and improve academic outcomes. In this regard, different studies have shown that GBL is more effective than standard approaches in both English and Social Sciences. Most of the research carried out about the effectiveness of GBL on academic performance has focused on digital game-based activities at different educational levels. On the one hand, concerning GBL in English, there were many studies at primary education analysing the academic performance regarding different language components and skills. In terms of reading comprehension, the reviews carried out by Hainey *et al*. (2016), Cabero-Almenara & Llorente (2020) or the study by Dourda *et al*. (2014), Vanbecelaere *et al*. (2020) showed significant improvements in students´ academic

performance when using digital GBL. The same results were found in digital GBL regarding listening comprehension (Suh et al., 2010 cited in Hainey *et al*. 2016); vocabulary (Acquah & Katz, 2020; Dourda *et al*., 2014; Thompson & Guillern, 2020) and when using analogue board games (York, 2020). Nevertheless, in grammar, there were studies which found positive improvements using digital GBL (Lin, Hwang, Fu & Cao, 2020) and no significant improvement using analogue games (Girmen & Kaya, 2019).

Focusing on Sciences, the number of studies was smaller in general but especially in primary education and there was more variety when using digital and analogue GBL. At primary level, there were various studies which found significant improvements when digital GBL was applied in Geography (Dourda *et al.*, 2014) and Natural Sciences (Adelantado, Reyes & Moliner, 2018; Anetta *et al.*, 2009; Meluso, Zheng, Spires & Lester, 2012 both cited in Hainey *et al*. 2016); and analogue GBL using card or board games (Liu & Chen, 2013). At a secondary level, Evaristo *et al.*, (2016) and Moreno (2020) reported significant improvement when using digital GBL in History, and Öztürk & Korkmaz (2020) in Social Sciences when using analogue games. However, other studies reported no significant academic performance differences when using GBL in primary education in Natural Sciences and this led them to think that control groups can be as effective or, even more effective than GBL (Harris, 2008; Wrzesien & Raya, 2010 cited in Hainey *et al*. 2016).

Despite the aforementioned, when checking the effectiveness of GBL within CLIL contexts, only three studies were found. From these, only the study carried out by Dourda *et al.* (2014) within the CLIL context was at Primary level and in Geography. This pre-test and post-test case study investigated the effectiveness of using GBL in a Geography CLIL setting with 11-12 year-old students. More specifically, they examined the impact of digital games on students´ Geography and English vocabulary and reading level as well as collaboration and game satisfaction. The results from comparing the pre and post-test showed that there were significant differences in vocabulary acquisition and reading skills as well as geography knowledge. Besides, the collaboration required by the game promoted interactions and undertaking roles and responsibilities within a controlled environment. They also affirmed that FL learning could effectively occur in Geography CLIL and GBL environments. Despite these results, there was no control group with which to compare the results; and the participants were not described more than by age and their digital native condition. Hence, it is not clear in which circumstances these significant improvements were made. The other two

studies were carried out in Secondary Education, in History (Mateo, 2020) and Physics, and Chemistry (Adelantado *et al*., 2018). Mateo (2020) investigated the effectiveness of Historical Board Games as part of an Erasmus program in which different non-English European countries participated. When they met in different countries as part of the Erasmus program, they played historical war board games in mixed international groups in order to practise in English. The main objectives were to exploit the benefits of the board games within the History setting as well as to improve English oral and written skills and Historic knowledge among others, all of which were fulfilled. In the case of Adelantado *et al.* (2018), they investigated the use of interactive bingo so as to study the periodic table of elements in English. The results showed that students acquired the content and language knowledge in the exam tests as the end of the unit. Despite the results at secondary level, it is worth mentioning they did not have either control groups or pre- tests or post-tests. Moreover, the authors did not explain the participants´ characteristics and, in the case of Adelantado *et al.* (2018), they did not describe the test. At this point, there is an evident need to empirically explore the impact of GBL within CLIL contexts and at different levels, but especially in Primary education due to the implementation of bilingual education programs and the debate around it about their effectiveness in ensuring academic performance in both content and language.

Finally, it would be naïve to think that GBL provides benefits without requirements or that its implementation would be a piece of cake. One of the first and most important challenges to be taken into account when applying GBL is to link and balance games and learning objectives (Egert & Phelps, 2020). There must be a balance between the game and the learning objectives so they have pedagogical goals; in other words, games must be the means and vehicle of learning and not the goal itself (Mosquera, 2019). This problem may be even bigger when using already-made games, above all, when using digital games so as to link the learning objectives to the game content and use. Other barriers and challenges found when applying GBL for it to be effective are contextual and logistic factors. There is a thread of literature and research that is claiming to take into account some contextual factors when applying GBL such as those regarding students´ achievement or socioeconomic and cultural background differences. These tend not to be taken into account in GBL studies when examining the academic performance but it is being demonstrated that GBL may not be successful with low achieving students or when there are socioeconomic and cultural

background differences (Ariffin, Oxley & Sulaiman, 2014; Plass *et al.*, 2015; Clark, Tanner-Smith & Killingsworth, 2016 cited in Taub *et al.* 2019).

Concerning logistic factors, there is a debate about the cognitive overload that playing games for the first time could cause to the detriment of the benefits of GBL, even more when these are played in a language other than the mother tongue (York, 2020). Nevertheless, there are other studies which have not found this issue when playing educational games game for the first time (Valbecelaere *et al*., 2020). This highlights the role of teachers when applying GBL in regard to different issues. The first one would be the need of content, pedagogical and technological knowledge and skills so as to effectively apply them in the classroom and take advantage of all their potential (York, 2020). In this respect, the frequency of using GBL is a key point since there are studies which have demonstrated that the overuse of digital games can lower students´ grades and degree of performance (Chacón *et al*., 2017 cited in Cabero-Almenara & Llorente, 2020). Similarly, it looks like there are topics or subjects that are more suitable for GBL to be effective in increasing students´ academic performance as found by Clark, Tanner-Smith & Killingsworth (2016 cited in Taub *et al.* 2019) in their meta-analyses. Lastly, one of the main problems on which educators concur when applying GBL is time. York (2020), Vu & Fye (2020) and Acquah & Katz (2020) in their meta-analyses found that time was one of the main difficulties educators found when applying GBL. The lack and scarcity of time was linked to their fixed timetables, work overload but especially due to the logistic dimension, and the time a GBL approach needs before and during its implementation for it to be successful.

2.5. Objectives and Hypothesis

This study aimed at shedding light on and providing insight about the use and effectiveness of game-based activities at primary education within a CLIL context. In order to do this, a pre and post-test quasi-experimental research design was carried out so as to analyse the impact of game-based learning on the academic achievement of primary students working in a CLIL context in two different subjects: Social Sciences and English. More specifically, this study explored the impact of game-based activities when these are used as reinforcement, review and consolidation of the content at the end of each session within a medium-low socioeconomic school context with high cultural diversity:

1. To analyse the impact of game-based activities on Social Science, namely, History.
2. To analyse the impact of game-based activities on English.
3. To analyse the degree of improvement in Social Science and English, that is, the learning gains.

Hence, the research question posed in this study to be answered was: are game-based activities more effective than standard activities in improving students´ academic achievement in Social Sciences and English at a primary CLIL context, and to what extent?

Based on the research question, the hypotheses to contrast were:

H_0 : Standard activities are more effective in improving students´ academic achievement in Social Sciences and English in a primary CLIL context and allow more knowledge and skills gaining than game-based activities.

H_1 : Game-based activities are more effective in improving students´ academic achievement in Social Sciences and English in a primary CLIL context and allow more knowledge and skills gaining than standard activities.

3. Methodology

3.1. Research Design

For this study, a quasi-experimental research design with pre-test and post-test and control group was carried out at a Primary school located in the Northern area of Madrid as shown in *Table 2*. The intervention lasted three weeks and was accomplished during the second term of the academic year 2020 (February-March). This research design consisted of an intervention aimed at exploring the cause-effect relationships between the use of standard activities versus game-based activities (independent variable) on the students´ academic performance (dependent variable). Moreover, the intervention was carried out in a natural context, namely the school, where the groups are arranged by the school authorities either at the beginning of school attendance or when they consider necessary and this cannot be changed or altered by the researcher (León & Montero, 2007). Hence, students were not randomly assigned either to the experimental or control group, it was the researcher in agreement with the EFL teacher who decided which group would be under the experimental and control condition.

Table 2
Outline of the Research Design

Group	*Pre-test*	*Intervention*	*Post-test*
Control group	Academic performance test composed of 10 questions: -5 related to Social Science content -5 related to English content	CLIL TU with standard consolidation, review and reinforce activities at the end of each session	Academic performance test composed of 10 items: -5 related to Social Science content -5 related to English content
Experimental group		CLIL TU with game-based consolidation, review and reinforce activities at the end of each session	

Note: own elaboration

3.2. Intervention

The intervention consisted of a CLIL and Task Based TU of Social Sciences about Modern Spain 20th Century, which belonged to *time and space block*. The TU as well as all the resources (except for the tests as specified) were developed A*d hoc* by the researcher in agreement with and supervised by the EFL school teacher. The Social Science content worked on was based on the compulsory content established in the Primary Curriculum of Madrid (Decreto 89/2014) as well as on the textbook used in the school: *Think, Do, Learn Module 2* by Oxford University Press editorial (Cerviño & Swift, 2015). The linguistic content was partly based on this textbook, that worked on in English as well as that required for the fulfilment of the different activities and tasks carried out during the Didactic Unit (Estaire, 2011).

As shown in *Table 3*, the TU was composed of 7 sessions of 45´ minutes as established in the law (Decreto 89/2014) and it was delivered by the researcher in both groups. It lasted three weeks: three sessions were delivered in the first two weeks and, the last session, during the third week; and each session focused on a particular topic within *Stuck in Modern Spain 20th Century* as *Table 3* shows. It is worth mentioning that the TU was previously planned to have two more sessions during the third week but Session 8 was eliminated and Session 9 was adapted due to the suspension of classes caused by the Coronavirus pandemic. Session 8 consisted of an EscapetheclassRooms (see *Appendix 21*) for the experimental group and a review worksheet (see *Appendix 22*) for the control; and Session 9 was the evaluation consisting of the group presentations of the research projects (Final Task) and the final test (see *Appendix 23*). Nevertheless, the research project had to be adapted to be carried out individually at home so the content was reduced (see *Appendix 20)* and the group

presentation was replaced by an individual video presentation. The final test was substituted by an evaluative activity (see *Appendix 19*) carried out during Session 7, the day before the school closure, in anticipation of the extension of this situation and the impossibility to carry out other on-site assessment of this unit.

Table 3
Outline of part c) of the TU

Session and Topics covered	*c) Consolidation, review and reinforce activities*
Session 1: Restoration and Primo de Rivera´s Dictatorship	• **Control group:** look for the information in the textbook and fill in the worksheet • **Experimental group:** domino & worksheet
Session 2: Second Republic	• **Control group:** questions worksheet • **Experimental group:** puzzle of questions worksheet
Session 3: Spanish Civil War	• **Control group:** multiple choice questions worksheet • **Experimental group:** online game *Who wants to be a millionaire?*
Session 4: Franco´s Dictatorship	• **Control group:** worksheet of the different schools • **Experimental group:** find the school differences worksheet
Session 5: Society during the Dictatorship	• **Control group:** class group oral activity using PPT • **Experimental group:** memory cards
Session 6: Democracy	• **Control group:** definitions worksheet • **Experimental group:** Taboo
Session 7: Art in Modern Spain (20th Century)	• **Control group:** filling a table worksheet • **Experimental group:** matching game

Note: own elaboration

Each session of the TU was structured in three main parts: a) motivation and setting as starting point to motivate, introduce the topic of the session and/or recapitulate and link it to previous content studied; b) directed activities related to texts (DARTS): explanation of texts through analysis activities based on questioning and diagram construction (Evans, 2011); c) consolidation, review and reinforce activities of the content studied. This specific and well-defined structure of the TU followed the indications of the EFL school teacher so as to adapt it to this specific context and all the students´ needs using different inclusive instructional methodologies since CLIL allowed for this flexibility and adaptability (Coyle *et al.*, 2010; Westwood, 2016). Therefore, the TU was similarly applied within the two groups covering the same content and topics, with the only difference found in part *c)* related to the nature of the

activities which was the independent variable manipulated in this study. Hence, in the control group a standard methodology using worksheets with activities such as matching activities, questions, multiple-choice exercises among others were used to consolidate, review and reinforce the content studied whereas in the experimental group these activities were game-based (see *Table 3*). In both cases, standard and game-based activities belonged to drill and practice activities genres and these were created based on the teaching objectives and compulsory content established in the law (Liu & Chen, 2013; Decreto 89/2014; Hainey *et al*., 2014).

In relation to the types of game-based activities, this selection was determined by different factors: a)the interrelation among teaching objectives, English and Social content and the appropriate games dynamics and content to link all of this (Liu & Chen, 2013); b) ensuring variety of games so as to cover all the students´ needs and interests; c) the available sources found within the school. Hence, all the games except for the online *Who wants to be a millionaire* were handmade card games since there were no digital devices within the school other than the interactive white board, and sometimes it did not work properly. Furthermore, card games have been demonstrated to be effective in gaining subject knowledge (Alexander, Sevcik, Hicks & Schultz, 2008), conceptualizing high abstract concepts and promoting interpersonal interaction skills when interacting by contrast to digital game-based learning in which there are no or, few interaction opportunities (Liu & Chen, 2013; York, 2020). The aforementioned statements justify the choice of card games as the most suitable game option to apply within this context taking also into account the Social Sciences and Language content and skills and, thus, teaching and learning objectives. Finally, in both groups, students worked in groups of four to complete the worksheets or other standard activities and play the games; and they all had the same homework. The detailed lesson plan of the TU can be seen in *Appendix 1 and all the materials and resources in Appendix 2*.

3.3. Participants

The total participants of this study were 49 sixth grade students from a Bilingual Primary school located in the Northern area of Madrid. The area in which this school is located has a medium-low socioeconomic level and presents high cultural diversity. Since group classes were already aligned by the school authorities in 6.º A (24 students) and 6.ºB (25 students), no effort was made to form the experimental and control group. Nevertheless, the decision

related to which group would be under the experimental and control condition was made by the EFL teacher in agreement with the researcher. Hence, it was decided that the control group was 6.º A and the experimental was 6.º B. This decision was founded on the fact that the level and motivation of 6.º B tends to be lower compared to 6.º A, so the possible effect of the intervention would be better observed in this group. In this respect, it is essential to clarify that in order to avoid ethical issues, the EFL teacher has been supervising all the intervention within the two groups so as to ensure they all received the same instruction and were provided with the same learning opportunities. The only difference between the groups was how the content studied during each session was reinforced, reviewed and consolidated using standard methods such as worksheets in the control group and games in the experimental group. Moreover, once the study concluded and the data was collected in the post-test, all the games and resources used in the experimental group were uploaded onto the school´s blog so all the students from the control group could use and benefit from them. Hence, this study has ensured the fulfilment of the teachers´ rights and obligations as established in the teaching deontological ethics code so as to guarantee all the participants´ learning rights.

Table 4

Demographic information of the Experimental and Control Groups

Group	*Origin*	*N*	*Group*	*Origin*	*N*
Control	Ecuadorian	8	Experimental	Ecuadorian	8
	Spanish	6		Spanish	5
	Dominican Republic	4		Colombian	2
	Moroccan	1		Moroccan	3
	Peruvian	2		Spanish-Columbian	2
	Spanish-Ukrainian	1		Spanish- Brazilian	1
	Spanish- Peruvian	1		Peruvian	1
	Bulgarian	1		Ukrainian-Rumanian	1
				Russian-Rumanian	1
				Philippine	1
Total		***24***	***Total***		***25***

Note: own elaboration

Even though the 49 participants of the study received the intervention under the two conditions, the final sample was 43 participants in the pre-test (20 in the control; 23 in the experimental); and 38 participants in the post-test (20 in the control; 18 in the experimental). This reduction of participants was due to the fact that some students were excluded from the study if they did not complete either the pre-test when it was administered (absence) and/or post-test. Their age was between 11-12 years old except for 5 students of the control group

and 3 of experimental who had taken the course twice and their age was between 12-13 years old. Within these two classes, even though students were born in Spain, most of them had different origins and there was high cultural diversity, as shown in *Table 4*. In relation to their English competences, within both groups there were different levels based on the classification of the Common European Framework of Reference for Languages (Council of Europe, 2002). Therefore, *Figure 1* shows the classification of participants within the control group and experimental according to their English level.

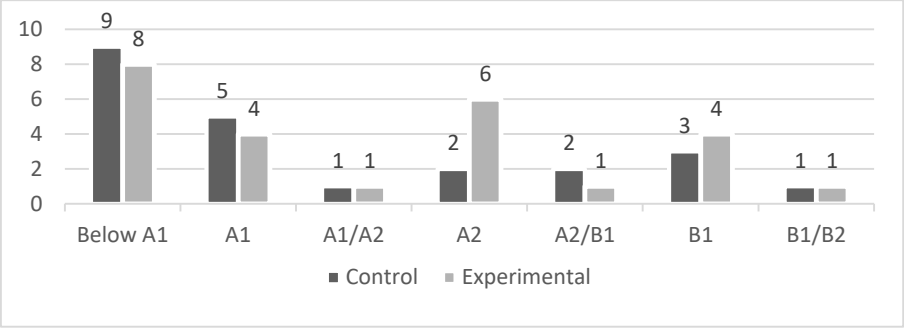

Figure 1: English Level of the Experimental and Control Groups

In the light of knowing the starting level of each group in Social Sciences and English before the intervention, the Mann Whitney test for independent samples was used with the data collected in the pre-test. Even though the control group got slightly higher scores in Social Sciences and English, this difference was not statistically significant in English (0,056 ≥ *p.* 0,05) for only 0,006 whereas in Science and considering the total of the two dimensions, there was significant difference between the two groups (0,014 ≤ *p.* 0,05). Hence, it could be said that the control group was non-equivalent to the experimental since it started with a higher level.

3.4. Data Collection and Instrument

As mentioned in the research design, a pre-test and post-test in the form of a questionnaire were used in this study as quantitative instruments to measure students´ academic performance in Social Sciences and English (see *Appendix 25*). Both tests were the same so as to compare the impact of the intervention on participants. The reason for using a performance academic test in the form of a questionnaire was due to the fact that these were well known by students and they were used to completing this type of instrument as part of their assessment. Consequently, one would expect that the academic performance test in the form of a questionnaire would not provoke test anxiety among the students (Grant, 2016) since these summative quantitative data were used with formative purposes like other class activities to gather objective data and to better monitor students and thus, improve the learning and teaching practices (De Almeida & Santos, 2015). Furthermore, questionnaires have other advantages to be taken into account since they are not time-consuming and allow for collecting a lot of data at the same time fast and easily (Fraenkel & Wallen, 2019). This is essential considering the school context, the fixed timetables, consequent lack of time, and the possibility that students answer randomly if these require a lot of time.

The academic performance test was created *Ad hoc* in agreement with the EFL teacher so the content was validated by these two expert EFL professors based on the content established in the curriculum (Decreto 89/2014). It is worth mentioning that, in order to avoid interference between the Social Sciences and English dimensions, the reading and listening items were obtained from extension activities provided in the textbook and which students had never seen or done before (Cerviño & Swift, 2015). Likewise, items 1-3 were not the same activities carried out in class but similar so as to ensure that the participants could show their understanding and performance rather than answering by heart without understanding and knowing what they were doing. Finally, the answers of the Social Sciences dimension mixed the content of the whole TU with the intention that these were not too obvious, and participants could not just guess them by reasoning.

Table 5

Dimensions and Items which comprised the Performance Test

DIMENSION A: SOCIAL SCIENCES CONTENT	*Curriculum content associated*
1. The constitution of 1978 gave us…(look for the false one)…	20. Identification of the most important democratic principles established in the Constitution and explanation of the importance of the Constitution for the well-functioning of the Spanish State
2. Which kings were involved in the Restoration?	15. Knowledge of some people of the Restoration period within the political and cultural context such as the kings Alfonso XII and Alfonso XIII, Antonio Cánovas del Castillo or the writers Benito Pérez Galdós and Pío Baroja
3. Benito Pérez Galdós and Pío Baroja were…	
4. What is the correct order of events?	17. Location in chronological order of the periods of the Republic, Civil War and Francoism 18. Knowledge of some important dates of the current democracy: the Spanish Constitution (1978), the incorporation of Spain to the European Economic Union (1986) and the substitution of the peseta by the euro as ordinary currency (2002) 19. Location within a timeline of the ages of Spanish history and indication of the various stages
5. Juan Carlos became king and…	15. Knowledge of some people of the Restoration period within the political and cultural context such as the kings Alfonso XII and Alfonso XIII, Antonio Cánovas del Castillo or the writers Benito Pérez Galdós and Pío Baroja
DIMENSION B: LINGUISTIC CONTENT	*Curriculum content and/or linguistic level associated*
6. Choose the words for these definitions	7. Precise and rigorous use of the appropriate vocabulary
7. Choose the correct missing words	Grammar – morphology
8. Choose the correct order for this sentence	Grammar – syntax
9. Choose the sentence that best represents the text	Reading comprehension
10. Choose the correct answer	Listening comprehension

Note: own elaboration

As shown in *Table 5*, the performance test comprised 10 multiple-choice items with 4 possible answers and only one correct and these were divided into two dimensions: a) Social Science content and b) Linguistic content. Each item scored a point and these were considered both, separately in their corresponding dimension giving a total of five points; and together giving the test a total score of ten points. The items of the dimension *a)* which comprised the Social Science content were created based on the compulsory content established in the Curriculum (Decreto 89/2014). In the case of dimension b), which comprised the Linguistic content/skills, items 6-10 were based on some of the linguistic levels and skills established by

Cummings (2000) in this theory: cognitive processes related to reading (item 9) and listening comprehension (item 10); and language processes related to vocabulary (item 6) and grammar: morphology (item 7) and syntax (item 8). Item 6 regarding vocabulary was also based on one common compulsory content to be developed in the stage as part of the Social Science content (Decreto 89/2014).

Concerning the procedure for collecting the data, the academic performance test was created and validated by the EFL teacher and the researcher, who is also an EFL teacher, during the penultimate week of February. After that, an online version of the questionnaire was created using Plickers to easily and effortlessly collect the data as well as to control participants´ answers. The questionnaire using Plickers, that is, the pre-test, was completed within both groups in the last week of February, specifically on the 24th. The next day after the pre-test, on the 25thFebruary, the intervention in the form of the TU started to be applied by the researcher in both groups, ensuring that this was sequenced and delivered similarly so as to avoid possible strange variables. The intervention lasted 3 weeks and had to be compulsorily finished on the 10th March owing to the school closure due to Coronavirus. Consequently, Session 8 was eliminated due to the impossibility of carrying out the EscapetheclassROOMs and the research project was adapted and sent as homework. It was not clear if the post-test could be carried out due to the situation so it was necessary to wait until the online-learning was established and contact with the participants was enabled. Meanwhile, different options to adapt the online academic performance test and thus, be able to carry out the post-test, were investigated using various online tools such as Socrative, Google Forms and Plickers so as to be able to collect the data in the most reliable way possible. Due to its characteristics, Google Forms was finally chosen and the questionnaire was created online during the last week of March. On 31st March, the link was sent to the EFL teacher for her to send to students. The questionnaire was available to be answered from 31st March until 26th April since few students initially answered and it was necessary to wait more time until most of the students had completed the post-test. Finally, the results were coded during the last week of April and analysed using the Statistical software SPSS version 22 for Social Sciences.

4. Analysis and Results

Within this section, the data gathered in the pre and post-test are analysed so as to determine the effect of game-based activities on participants´ Social Science and English performance. In order to do this, various and different statistical analyses using SPSS were carried out at a macro level when analysing the Social and English dimension as a whole, and at micro level when analysing the items individually.

Concerning the analysis carried out, the first one was the Shapiro-Wilk test to find out if the groups were normally distributed, which would determine the appropriate type of tests to adequately compare the scores within the groups. Since the groups were not normally distributed (>0.05) (neither considering the participants as a whole or within their groups) the size of the sample was not representative; and the participants were not randomly assigned to each group; no parametric tests were used to compare the results since homogeneity in the sample is a compulsory requirement to carry out parametric tests. Hence, no parametric tests such as the Mann-Whitney and Wilcoxon were used to compare the data gathered in the pre and post-test so as to determine the impact of game-based activities on students´ academic performance under each condition.

4.1. Independent Samples Results

In order to examine and compare the performance level before and after the implementation of the intervention within both groups, the data was analysed using the U Mann-Whitney test for independent samples. Regarding the pre-test and, as aforementioned, the control group performed slightly better in all the dimensions of the academic performance since it got higher means in all of them as *Table 6* illustrates. The highest difference was found when considering Social Science and English together (2,85 vs. 1,74=1,11) whereas the lowest difference was found in English (0,95 vs. 0,43= 0,52). As the results from the U Mann-Whitney test show in Table 6, these differences were statistically significant in the Social Science dimension (0,026 ≤ *p.* 0,05) as well as considering both dimensions together (0,014 ≤ *p.* 0,05). Even though in the English dimension there was not a significant difference between the control and experimental group, it was on the limit (0,056 ≥ *p.* 0,05).

Table 6

Global Mean Scores and U Mann-Whitney for Independent Samples Results

Dimensions	*Groups*	*N*	*Pre-test*			*Post-test*		
			Mean	*SD*	*P*	*Mean*	*SD*	*p*
A) Social Science	Control	20	1,90	0,912	**0,026**	3,00	1,589	0,254
	Experimental	23	1,30	0,926		2,72	1,320	
B) English	Control	20	0,95	1,146	0,056	2,30	1,559	0,245
	Experimental	23	0,43	0,728		1,94	1,392	
Total test (Science and English)	Control	20	2,85	1,725	**0,014**	5,30	2,677	0,235
	Experimental	23	1,74	1,176		4,67	2,401	

Note: own elaboration

In contrast to the results obtained in the pre-test and, as *Table 6* shows, both groups performed very similarly in the post-test but it was also the control group which achieved higher scores. Nevertheless, the differences found between the two groups were not as significant as in the pre-test. In Social Sciences there was a difference between the control and experimental groups of 0,28 (3,00 vs. 2,72) and in English of 0,36 (2,30 vs. 1,94), which was about half of the lowest difference obtained in English in the pre-test (0,95 vs. 0,43= 0,52). When considering the two dimensions together, that is, the total test, there was a difference of 0,63 (5,30 vs. 4,67) between the two groups, which was similar again to the lowest difference found in the pre-test, specifically in English. As a result, when revising the U Mann-Whitney test, these differences were not statistically significant in any of the dimensions or when considering them together (≥ *p.* 0,05). Indeed, these were very similar (Social Sciences: 0,254; English: 0,245; total test: 0,235) in contrast to the pre-test in which these were disparate and, in most of the cases, statistically significant ≥ *p.* 0,05 (Social Sciences: 0,026; English: 0,056; total test: 0,014).

When analysing the data gathered in the pre-test at a micro level, this is, item by item, the control group also got higher mean scores in all the items except for item 5 (Social Sciences) in which the experimental group got a higher mean score as shown in *Table 7.* Just like the dimensions analyses, the highest difference between the groups was found in the mean of Social Sciences, specifically in item 1 (0,35 vs. 0,09= 0,26). The lowest difference was also found in this dimension in item 5, but in this case it was the experimental group who got the highest mean, but only for 0,02 (0,50 vs. 0,52). In general, the differences in the mean scores in each item were higher in the Social Sciences dimension and lower in the English. After carrying out the U Mann-Whitney test for independent samples in each item, there was

a statistically significant difference only in item 1 (0,04 ≤ *p.* 0,05). Indeed, the significant difference found in item 1 was high, which may explain why there was a significant difference in the Social Sciences dimension as well as when considering both dimensions together but not in English.

Table 7

Items Mean Scores and U Mann-Whitney for Independent Samples Results

Dimensions	*Items*	*Groups*	*N*	*Pre-test*			*Post-test*		
				Mean	*SD*	*p*	*Mean*	*SD*	*p*
A) Social Sciences	Item 1	Control	20	**0,35**	0,489	**0,04**	**0,50**	0,513	0,627
		Experimental	23	**0,09**	0,288		**0,50**	0,514	
	Item 2	Control	20	0,40	0,503	0,167	0,55	0,510	0,507
		Experimental	23	0,22	0,422		0,50	0,514	
	Item 3	Control	20	0,35	0,489	0,381	0,70	0,470	0,407
		Experimental	23	0,26	0,449		0,61	0,502	
	Item 4	Control	20	0,30	0,470	0,393	**0,60**	0,503	0,604
		Experimental	23	0,22	0,422		**0,61**	0,502	
	Item 5	Control	20	**0,50**	0,513	0,565	0,65	0,489	0,272
		Experimental	23	**0,52**	0,511		0,50	0,514	
B) English	Item 6	Control	20	0,15	0,366	0,252	**0,40**	0,503	0,385
		Experimental	23	0,04	0,209		**0,50**	0,514	
	Item 7	Control	20	0,25	0,444	0,152	0,55	0,510	0,507
		Experimental	23	0,09	0,288		0,50	0,514	
	Item 8	Control	20	0,10	0,308	0,446	0,30	0,470	0,432
		Experimental	23	0,04	0,209		0,22	0,428	
	Item 9	Control	20	0,25	0,444	0,405	**0,65**	0,489	**0,024**
		Experimental	23	0,17	0,388		**0,28**	0,461	
	Item 10	Control	20	0,20	0,410	0,266	**0,40**	0,503	0,520
		Experimental	23	0,09	0,288		**0,44**	0,511	

Note: own elaboration

As *Table 7* illustrates, in the microanalysis of the items in the post-test there was more disparity since it was not the control group who always performed better. In contrast to the results obtained in the pre-test, on this occasion the differences in the mean scores between the control and experimental groups were higher in the items of the English dimension and lower in the items of the Social Sciences. The data gathered showed that in item 1 belonging to the Social Science dimension, both groups got the same mean (0,50). Furthermore, there were three items in which the experimental group performed better: item 4 of Social Sciences but for 0,01 (0,60 vs. 0,61); item 6 of English regarding vocabulary for 0,10 (0,40 vs. 0,50); and item 10 of English regarding listening for 0,04 (0,40 vs. 0,44). In the rest of the items it was the control group which achieved higher scores, especially in item 9 of English regarding reading, which was the highest difference in the mean between the two groups (0,65 vs. 0,28=0,37).

This could explain why when carrying out the U Mann-Whitney test for independent samples in each item, there was a statistically significant difference only in item 9 of English (0,024 ≤ *p.* 0,05). In spite of the significant difference found in item 9 of English, this should not be very high since there was no statistical significance between the two groups in the post-test.

4.2. Dependent Samples Results

After carrying out the U Mann-Whitney test for independent samples in the pre and post-test, the Wilcoxon tests for dependent samples were carried out in both groups so as to analyse the effects of each intervention on their academic performance. To start with the control group and their results obtained in each dimension, they improved those from the pre-test to the post-test as can be seen in *Table 8*. Comparing the means of the two dimensions, the highest improvement was seen in English (1,90 vs. 3,00) as well as when considering both dimensions together (2,85 vs. 5,30), in which the mean rose nearly double. According to the Wilcoxon test, these improvements were statistically significant in all the dimensions (≤ *p.* 0,05), especially in English (0,000 ≤ *p.* 0,05) as well as when considering the whole test (0,001 ≤ *p.* 0,05).

Table 8

Mean Scores and Wilcoxon for Dependent Samples in Control Group

Items & Dimensions	*Pre-test*		*Post-test*		
	Mean	*SD*	*Mean*	*SD*	*p*
A) Social Science	1,90	0,912	3,00	1,589	0,020
Item 1	0,35	0,489	0,50	0,513	0,188
Item 2	0,40	0,503	0,55	0,510	0,254
Item 3	0,35	0,489	0,70	0,470	0,133
Item 4	0,30	0,470	0,60	0,503	0,254
Item 5	0,50	0,513	0,65	0,489	0,344
B) English	0,95	1,146	2,30	1,559	0,000
Item 6	0,15	0,366	0,40	0,503	0,090
Item 7	0,25	0,444	0,55	0,510	0,063
Item 8	0,10	0,308	0,30	0,470	0,109
Item 9	0,25	0,444	0,65	0,489	0,035
Item 10	0,20	0,410	0,40	0,503	0,109
Total test (Social Sciences and English)	2,85	1,725	5,30	2,677	0,001

Note: own elaboration

When analysing the improvements of the control group at a micro level, that is, item by item, they also performed better in all the items as shown in *Table 8*. The highest improvement in Social Sciences was found in item 3 (0,35 vs. 0,70=0,35); and in English in item 9 related to reading comprehension (0,25 vs. 0,65=0,40), which was also the highest improvement within all the items. By contrast, the lowest improvements in Social Science were in item 1 (0,35 vs. 0,50=0,15), item 2 (0,40 vs. 0,55=0,15) and item 5 (0,50 vs. 0,65=0,15), which were also the lowest among all the items. In English, the lowest improvements were in item 8 related to syntax (0,10 vs. 0,40=0,20), and item 10 related to listening comprehension (0,20 vs. 0,40=0,20), closely followed by item 6 regarding vocabulary (0,15 vs. 0,40=0,25). Therefore, when carrying out the Wilcoxon test, there was only a statistically significant difference only in item 9 related to reading comprehension (0,035 ≤ *p.* 0,05), which was also the item in which the control group improved more from the pre-test to the post-test. This item was also the only one in which a statistically significant difference was found when comparing the performance of the control and experimental group in the post-test as mentioned in the previous section (0,024 ≤ *p.* 0,05).

Regarding the Wilcoxon tests for dependent samples carried out in the experimental group, the participants also got higher mean in all the dimensions in the post-test and, thus, improved their performance when comparing them with the pre-test as shown in *Table 9*. As in the control group, the highest improvement was seen in English (1,94 vs. 0,43= 1,51) and, when considering both dimensions together, the mean increased more than double (1,74 vs. 4,67=2,93). As with the control group, the improvements made in all the dimensions by the experimental group were statistically significant (≤ *p.* 0,05) according to the Wilcoxon test carried out. Nevertheless, the levels of significance obtained in the three dimensions by the experimental group were higher and more homogeneous when comparing them to those obtained by the control group. Specifically, the level of significance of English and the total test was (0,000 ≤ *p.* 0,05) whereas in Social Science was (0,003 ≤ *p.* 0,05).

Table 9

Mean Scores and Wilcoxon for Dependent Samples in Experimental Group

Items & Dimensions	*Pre-test*		*Post-test*		
	Mean	*SD*	*Mean*	*SD*	*p*
A) Social Science	1,30	0,926	2,72	1,320	0,003
Item 1	0,09	0,288	0,50	0,514	0,035
Item 2	0,22	0,422	0,50	0,514	0,090
Item 3	0,26	0,449	0,61	0,502	0,016
Item 4	0,22	0,422	0,61	0,502	0,113
Item 5	0,52	0,511	0,50	0,514	0,687
B) English	0,43	0,728	1,94	1,392	0,000
Item 6	0,04	0,209	0,50	0,514	0,002
Item 7	0,09	0,288	0,50	0,514	0,055
Item 8	0,04	0,209	0,22	0,428	0,063
Item 9	0,17	0,388	0,28	0,461	0,312
Item 10	0,09	0,288	0,44	0,511	0,031
Total test (Social Sciences and English)	1,74	1,176	4,67	2,401	0,000

Note: own elaboration

In contrast to the control group, the micro analyses showed that the experimental improved in all the items in the post-test except for item 5 of Social Science in which they scored slightly less than in the pre-test (0,52 vs. 0,50=-0,02) (see *Table 9*). Within the Social Science dimension, item 1 was where the experimental group had the highest performance (0,09 vs. 0,50=0,41) whereas for the control it was the one in which they scored the lowest. As with the control group, their lowest scores in Social Science were found in item 5 as aforementioned which was negative, and in item 2 (0,22 vs. 0,50=0,28). In regard to the English dimension, the highest performance was found in item 6 regarding vocabulary (0,04 vs. 0,50=0,46) which was also the highest performance among all the items. This was closely followed by the improvements made in item 7 regarding morphology (0,09 vs. 0,50=0,41). Item 7 was the one in which the control group scored least within the English dimension. Finally, the lowest scores in the English test were found in item 9 related to reading comprehension (0,17 vs. 0,28=0,11), closely followed by item 8 related to syntax (0,04 vs. 0,22=0,18). Both, the control and experimental groups scored low in item 8. However, for the experimental group item 9 was their lowest score within the English and in the entire test if item 5 is not considered whereas for the control, their highest score within the English dimension and among all the items. In opposition to the control group, when analysing the

items separately, the Wilcoxon test showed that there was statistically significant difference in various items. These were item 1 (0,035 ≤ *p.* 0,05) and item 3 (0,016 ≤ *p.* 0,05) from the Social Science dimension; and item 6 concerning vocabulary (0,002 ≤ *p.* 0,05) and item 10 related to listening comprehension (0,03 ≤ *p.* 0,05) from the English dimension. Despite the difference in item 7 regarding morphology not being significant, it was close (0,055 ≤ *p.* 0,05). The improvements made by the experimental group in the post-test in item 1 was the only statistically significant difference (0,04 ≤ *p.* 0,05) found when comparing both groups after the intervention as aforementioned in the previous section.

4.3. Gaining Results

In order to determine the degree of improvement within each group, the means obtained in each dimension in the pre-test and post-test were compared. According to that, both groups increased their means after the intervention as explained in previous sections and, it was in the English dimension in which both of them obtained higher gainings. However, the experimental group outperformed the control group in all the dimensions, having higher gainings.

Specifically, within the Social Sciences dimension, the control group achieved a gaining of 1,10 (1,90 vs. 3,00) whereas the experimental group increased by 1,42 (1,30 vs. 2,72). Similarly, in the English dimension, the control group obtained a gaining of 1,35 (0,95 vs. 2,30) in contrast to the experimental who gained 1,51 (0,43 vs. 1,94). Finally, when considering the total of the test, that is, the Social Science and English dimension together, the control group obtained a mean of 2,85 in the pre-test and 5,30 in the post-test, which supposed a total gaining of 2,45 whereas the experimental group got 1,74 in the pre-test and 4,67 in the post-test, supposing a total gaining of 2,93. *Figure 2* visually illustrates the gainings of both groups in each dimension.

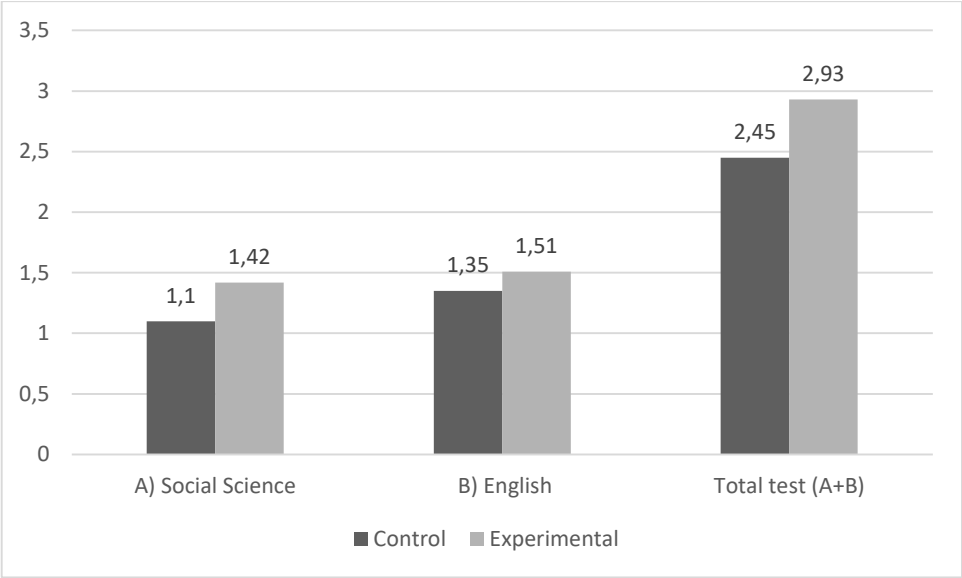

Figure 2: Dimensions of Gainings of Control and Experimental Groups

However, when the gainings were analysed at a micro level, that is, the gainings of each item, the results are not that homogeneous as when considering them within their dimensions as shown in *Figure 3*. The means of the items showed that only the control group obtained gainings in all the items in contrast to the experimental who looked to have lost scores in item 5 (0,52 vs. 0,50= -0,02). It is worth mentioning, however, that item 5 was one in which the control group got the lowest gainings. Apart from that specific item, both groups increased their means from the pre-test to the post-test in the rest of the items.

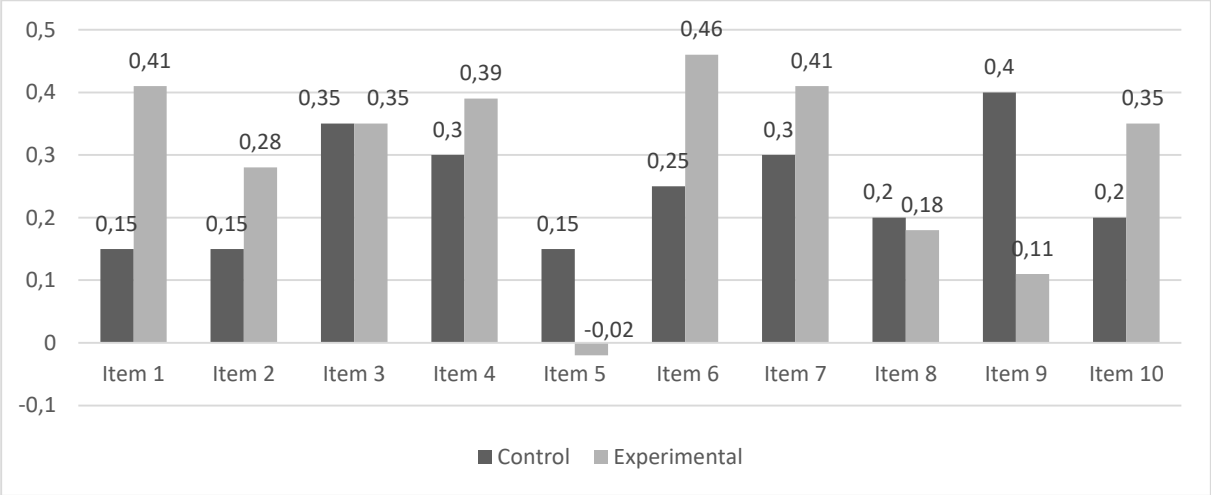

Figure 3: Items Gainings of Control and Experimental Groups

As *Figure 3* shows, within the Social Science dimension, the experimental group outperformed the control obtaining more gainings in items 1 (0,15 vs. 0,41) , 2 (0,15 vs. 0,28) and 4 (0,3 vs. 0,39). By contrast, they got the same gainings in item 3 (0,35) whereas the

control outperformed the experimental in item 5 (0,15 vs. -0,02). The experimental group experienced the highest gaining in item 1 (0,41), closely followed by item 4 (0,39) and the lowest in item 5 (-0,02), which indeed was negative, and item 2 (0,28). The control group, however, got the highest gaining in item 3 (0,35) closely followed by item 4 (0,3) and the lowest in items 1 (0,15), 2 (0,15) and 5 (0,15). When looking for similarities, both groups coincided in the acquisition of the higher gaining in items 3 and 4 and lower in 2 and 5. Regarding the English dimension and, as *Figure 3* shows, the experimental group outperformed the control in item 6 (vocabulary) (0,25 vs. 0,46), item 7 (morphology) (0,30 vs. 0,41) and item 10 (listening comprehension) (0,2 vs. 0,35). On the contrary, the control group outperformed the experimental in item 8 (syntax) (0,2 vs. 0,18) and item 9 (reading comprehension) (0,4 vs. 0,11). The experimental group obtained the highest gaining in item 6 (vocabulary) (0,46), closely followed by item 7 (morphology) (0,41), which also were the highest among all the items adding item 1. For this group, the lowest gaining was in item 9 (reading comprehension) (0,11), followed by item 8 (syntax) (0,18). On the other hand, the control group got the highest gaining in item 9 (reading comprehension) (0,4), which was also their highest among all the items. Their lowest gaining was found in item 6 (vocabulary) (0,25) closely followed by item 8 (syntax) (0,20) and 10 (listening comprehension) (0,20). When examining the similarities between the two groups, both of them performed higher in items such as 7 (morphology) and lower in 8 (syntax). *Figure 3* shows visually the abovementioned data.

5. Discussion

The aim of this study was to analyse the impact of game-based activities on Social Science and English academic performance when using them as reinforcement, consolidation and review of the content studied at the end of each session. The results showed that, even though the control and experimental groups started from different levels of performance in Social Sciences and English, both groups got similar levels of achievement after the intervention. Nevertheless, despite the fact that the experimental group did not outperform the control, they got higher gainings since they started from a lower level of academic performance compared to the control, and reached the same level. Evaristo *et al.* (2016) also found that their two control groups and experimental group improved their History academic

achievement, but it was within the groups in which games were used where students obtained higher gainings when comparing the mean from the pre and post-test. Hence, the results of this study showed that GBL was more effective in improving Social Sciences and English academic performance than standard methods since the gainings obtained by the experimental group were higher than those obtained by the control.

In this respect, it is worth mentioning that the control group always showed slightly higher academic performance. This non-equivalent level of performance between the groups may have interfered negatively in the results obtained in the study. In this line, other GBL studies which did not find significant difference between the control and experimental group as in the present study suggested that the control group can be as effective as or, even more effective than GBL (Harris, 2008; Wrzesien & Raya, 2010 cited in Hainey *et al*. 2016). This may explain why the experimental group did not outperform the control even though they got higher gainings since there were more high achieving students than in the experimental, which explains why the control always showed high academic performance despite the GBL implemented in the experimental.

Contextual factors have also been found to affect the performance of the experimental group and, thus, these could explain why the experimental did not outperform the control. As far as the students are concerned, this result could be due to the experimental group´s participants and their low achievement in comparison to the control as stated by Lin *et al.* (2020) and York (2020); the students´ socioeconomic and cultural background differences (Ariffin *et al.*, 2014; Plass *et al.*, 2015; Clark, Tanner-Smith & Killingsworth, 2016 cited in Taub *et al.* 2019); and the overload that playing a game for the first time can cause, even more so if it is in a foreign language (York, 2019). Nevertheless, Vanbecelaere *et al.* (2020) did not find evidence that supports the finding of York (2019) since their experimental group outperformed the control even though it was the first time they played. Furthermore, as regards the school context, other meta-analysis carried out by Clark, Tanner-Smith & Killingsworth (2016 cited in Taub *et al.* 2019) found evidence that there may be subjects and/or topics which are more effective than others and which, therefore, may affect the overall success of GBL. Similarly, the scarce time for scaffolding provided in some game-based activities due to the lack of time, logistic and human resources may have also affected negatively as found by Acquah & Katz (2020) and York (2020).

Despite the fact the experimental group did not outperform the control and that both groups made significant difference from the pre and post-test, the level of significance and, thus, the improvement found in the experimental group was slightly higher than in the control. This was demonstrated when examining the gainings in each group since the experimental got higher than the control. This could mean that the experimental group started to outperform the control significantly, but that the game-based activities may have failed in some way stopping them from gaining higher and significant academic performance when comparing the level of achievement of both groups. In opposition to this result, Öztürk & Korkmaz (2020) and Girmen & Kaya (2019) found statistically significant differences in the Social Science and English academic performance respectively in their experimental groups in comparison to their controls when using game-based activities as reinforcement, review and consolidation of content. They implemented the game-based activities in a similar way, but dedicated more time to playing so as to consolidate the knowledge previously presented: one whole session after each theoretical session presenting the content (Öztürk & Korkmaz, 2020), or even more than one session (Girmen & Kaya, 2019). Consequently, the time employed for the game-based activities in this research may have been too short for the experimental group to gain significant academic performance improvement when compared to the control. Hence, it would be necessary to consider contextual factors and adapt game-based activities to these so as to harness the full potential they provide.

Focusing on Social Sciences at a macro level, both groups made significant improvements and it was the experimental whose level of significance was higher as well as their gainings. At a micro level, that is, when examining the achievements made by each group in the Social Science items, only the experimental group made significant improvements in some items. On the one hand, these findings contrast with the results obtained by Harris (2008) and Wrzesien & Raya (2010, cited in Hainey *et al*. 2016) who did not find evidence of performance improvement when using game-based activities in Natural Science in Primary Education. On the other hand, the results obtained in this study confirmed those obtained by other researchers in History at Secondary Education (Evaristo *et al.*, 2016; Mateo, 2020); and at Primary Education in Geography (Dourda *et al.*, 2014); Natural Science (Annetta *et al.*, 2009 cited in Hainey *et al.*, 2016; Meluso, Zheng, Spires & Lester, 2012 cited in Hainey *et al*. 2016; Lui & Chen, 2013; Adelantado *et al.*, 2018) and other Social Studies Courses at Secondary level (Öztürk & Korkmaz, 2020). In contrast to the gainings made by the experimental group, they

also obtained negative results in one item whereas the control group improved in the same although it is true that the gainings made by the control were the lowest among the Social Science items. This result could be linked to the difficulty found by both groups with the content itself. Similarly, game-based related issues when planning and applying could have complicated the experimental performance. Some of these issues are the appropriateness of determined games to each content or topic within the TU (Clark, Tanner-Smith & Killingsworth, 2016 cited in Taub *et al.* 2019); the lack of relation between the learning objectives and content to be worked within the games (Egert & Phelps, 2020); or the need of reviewing and consolidating the content deeper, that is, to play the game-based activities longer as Öztürk & Korkmaz (2020) did.

In regard to English at a macro level, that is, considering the whole dimension, both groups improved significantly from the pre-test to the post-test as in Social Science. Similarly, the experimental group got higher gainings than the control. Dourda *et al.* (2014), Adelantado *et al.* (2018) and Mateo (2020) reported the same results when they applied game-based activities in CLIL contexts. These results suggest, on the one hand, that CLIL was applied effectively since there was a progression in both the Social Science and English content (Marsh, 2000) and, on the other hand, that English or other foreign languages can be effectively acquired and learnt within a Social Science, in this case, in a History game-based CLIL context as Dourda *et al.* (2014) also suggested but within a Geography CLIL setting. This also highlights the adaptability and flexibility of game-based and CLIL methodologies to the context to be applied, as well as the inclusivity they ensure when providing opportunities to answer all the students´ needs (Coyle *et al.*, 2009; Coyle *et al.*, 2010; Marsh, 2000), but also their improved effectiveness when introducing and applying them together as suggested by Casañ (2017).

However, the microanalyses carried out in the English items showed that the control group outperformed the experimental and got significant improvement in some items. The control group obtained significantly higher gainings in the item related to reading in contrast to all the studies revised in which higher and significant reading performance outcomes were reported by the experimental group (see for example Suh *et al*., 2010 cited in Hainey *et al.* 2016; Aguilar & Adell, 2018, Jiménez & Díez-Martínez, 2018, Del Moral *et al*., 2018, Hartanto *et al*.,2018 all cited in Cabero-Almenara & Llorente, 2020; Vanbecelaere *et al*. 2020). This could be due to the fact that the game-based activities implemented enhanced interactions,

that is, they promoted more oral skills than writing skills. As commented on before, it is important to consider the objectives, goals and content to work on when designing the games (Egert & Phelps, 2020); otherwise, some of these could not be fully and effectively worked on as found in this study despite the potential of game-based activities in doing so. Likewise, from this finding follows the consideration that when working with different skills and/or content these must be worked in a balanced way to achieve the goals in all the content and skills worked and not only in some as in this study. The control group also performed slightly better in the syntax (grammar) item even though it is true that both groups got the lowest improvement in this item. In this respect, researchers have found different and opposite results. In line with this finding, Lin, Hwang, Fu & Cao (2020) found that game-based activities were no more effective than standard methods in improving grammar academic achievement, even though the experimental group decreased errors whereas Girmen & Kaya (2019) found significant difference in the experimental group performance. Likewise, in the Social Science dimension, this result could be related to the difficulty of the content itself since both groups performed low. In the same way, this result could be justified with the use of a non-appropriate game for this content (Clark, Tanner-Smith & Killingsworth, 2016 cited in Taub *et al.* 2019); a lack of relation between the learning objectives and content to be worked within the games (Egert & Phelps, 2020); or the need for more play so as to practise this content as Girmen & Kaya (2019) did. Hence, it is necessary to take into account all of these factors when planning and designing game-based activities.

Finally, the experimental group got significant improvement and higher gainings in the items related to morphosyntax (grammar), vocabulary and listening. These findings were supported by many other studies, which found significant improvements in these language dimensions and skills. As aforementioned, the game-based activities implemented in this study promoted interactions and, thus, the listening skill was one in which the experimental group got significant differences and higher gainings as reported by Suh *et al*., 2010 (cited in Hainey *et al.* 2016) and York (2020). Finally, the experimental group also got significant difference and the highest gainings in the vocabulary item as many authors found in their own experimental studies (Mazaji & Tabatabaei, 2016; Utku & Dolgunsöz, 2018; Shahriarpour & Kafi, 2014 all cited in Acquah & Katz, 2020) or in others when carrying out literature reviews regarding this issue (Thompson & Guillern, 2020). Based on that, game-based activities should be highly considered when dealing with vocabulary, morphosyntax and listening skills in

foreign languages since there is a wide amount of literature, this study included, which provide scientific evidence about their effectiveness in improving vocabulary acquisition both within the EFL and within CLIL classroom.

In a nutshell, it is worth mentioning that, even though the experimental group did not outperform the control group in Social Science and English, they did improve to a wide extent since they started with a lower level of performance as aforementioned and reached a similar level when comparing them with the control. In other words, the experimental group obtained higher gainings in Social Science, English and in the total test when comparing the means in the pre and post-test. From this, therefore, one could infer that GBL is effective in improving Social Science and EFL academic performance in CLIL settings, but there are some contextual factors, logistics and other considerations to be taken into account to successfully apply it and exploit all of its potential.

6. Conclusions

The present study aimed at analysing the impact of game-based activities on Primary students´ academic performance in the subjects of Social Sciences, namely History, and EFL. Hence, it could be said that this aim has been fulfilled. The main conclusion that can be deduced from it is that GBL is an effective language-supporting methodology to be used within the CLIL Social Sciences context. More specifically, game-based activities have been demonstrated to be effective in order to consolidate, review and reinforce Social Science, namely History and EFL content within highly diverse cultural settings and with low academic achievers enhancing more gainings than standard language-supporting methodologies or activities. Consequently, GBL should be considered not only an effective language-supporting methodology, but also a pedagogical tool so as to provide attention and inclusivity to diversity within bilingual contexts. Therefore, it could be said that the alternative hypothesis stated has been confirmed. This is explained since, even though the experimental group did not outperform the control regarding their academic level reached after the intervention, they showed more academic performance improvements owing to the fact that they started with lower academic levels and, at the end, both groups achieved a similar level. Thus, the experimental group made higher improvements and got higher gainings than the control in

History and EFL from the pre-test to the post-test so GBL was more effective in improving academic performance than supporting standard methods.

Nevertheless, these results should be regarded as moderate due to the limitations of the present study. Basically, these limitations were mainly caused by the Coronavirus pandemic and the consequent suspension of classes. To start with, in terms of the teaching process, the last sessions were affected. On the one hand, the last session concerning art was the day before the suspension so it had to be delivered quickly so as to leave everything organised. As a result, the game was played for even less time than in the other sessions. On the other hand, the escape room session could not be carried out at all since it was planned to be implemented during the week of the class suspension. These could have provided more insights as to the effectiveness or lack thereof when using GBL within Social Sciences and EFL in CLIL settings in this context. Similarly, the post-test had to be done online at home without supervision, so participants could have checked the textbook or class-notes and take all the time they needed. Consequently, they had a few weeks to carry out the post-test since an effort was made to encourage their collaboration as much as possible so as to finish the study; therefore, they did not have a specified completion date. In fact, at the beginning, there were deadlines but due to the lack of answers received and the risk of not getting enough answers, the post-test was available until most of them completed it. This could have distorted the findings in two opposite ways: positively by providing answers that are more correct given the possibility of checking the material; and negatively by not fully showing the real gains since most of the students completed the test some weeks after the intervention was finished. Indeed, the post-test could be considered as a delayed test due to the delay in completing it. Apart from the abovementioned limitations caused by the Coronavirus pandemic, it is worth mentioning another limitation regarding the non-equivalence of both groups since the control started with a higher level of performance. This could have affected the results of the study since it may have interfered to the extent that the experimental outperformed the control and, thus, achieved significant differences in their academic performance. From all of these limitations, there are considerations to be taken into account in future research. On the one hand, this study should be replicated but carrying out the post-test face to face, controlling all the variables implicated such as the time to complete the post-test without the possibility of looking at materials to find the answers. As regards when carrying out the post-test, this should be completed just after the intervention to find out its immediate effects. Similarly, it

would be interesting to carry out a delay test at the end of the academic year so as to examine the long-lasting effects of GBL on students´ academic performance. Finally, it would be necessary to have equivalent performance groups so as to better examine the effectiveness of GBL on academic outcomes and avoid possible interferences in the results.

Apart from the aforementioned future research concerning the limitations of the present study, there is a need for a wide future thread of research about GBL. One of the main claims of other authors when reviewing GBL in Social Sciences and EFL is the need for empirical studies with experimental research designs so as to generalise the results (Herrero *et al*., 2020; Plass *et al.,* 2015, Cabero-Almenara & Llorente, 2020). In this respect, these empirical investigations should follow a similar or common GBL model since, despite all the investigations carried out about GBL in many fields, most of these were not empirical, focused on different aspects and had different aims so these results may not be reliably extrapolated. This is why a high number of research literature reviews about GBL has been found as aforementioned. Hence, in agreement with Ariffin *et al*. (2014) and Herrero *et al.* (2020) there is a need to establish an effective GBL approach and framework to be followed. There is an initial thread of research regarding attempts at defining effective GBL models or frameworks such as York (2019) in EFL and Casañ (2017) in CLIL context but these are still too theoretical and focused on specific contexts. Some of the common issues that must be established in GBL are, for example, guidelines about the time and frequency needed for GBL to be effective without provoking an opposite effect. This is a key aspect of GBL since limited exposure as in this study may not enhance the learning level being aimed at, but an overuse can have the opposite effect of lowering grades and academic performance as found out by Chacón *at al.* (2017 cited Cabero-Almenara & Llorente, 2020). In other words, it is necessary to find a correlation between GBL time exposure and academic performance to reach the aims and avoid possible negative effects. Similarly, it is necessary to determine which are the topics or content more suitable to be worked within the GBL as found by Clark, Tanner-Smith & Killingsworth (2016 cited in Taub *et al.* 2019), and whether all of these would need the same time of GBL or whether that changes according to the content or contextual factors such as individual differences or background. Therefore, this GBL framework or approaches are needed within diverse contexts, considering low achieving students or when there are socioeconomic and cultural background differences (Ariffin, Oxley & Sulaiman, 2014; Plass *et al.*, 2015; Clark, Tanner-Smith & Killingsworth, 2016 cited in Taub *et al.* 2019). Having said

that, the results obtained in this study may serve as the basis and first step to take into account in future threads of research about a GBL framework or approach and, more specifically, as an effective pedagogical tool to provide attention and inclusivity to diversity within bilingual contexts.

Regarding the educators´ role, GBL presents certain requirements in order to successfully implement and apply it related to the links between learning aims and objectives or logistics as aforementioned. Nevertheless, GBL requires not only skills and knowledge about itself, but also about the content to be taught, its pedagogy and technology and how to effectively link all of this to GBL. Therefore, GBL is not effective in itself; it depends on the teachers´ role, knowledge and skills as demonstrated with all the considerations provided in the GBL studies to be followed by educators in Social Sciences (e.g. Herrero et al., 2020) and EFL (York, 2019; York, 2020). From this follow not only considerations for teachers, but also for educational stakeholders so as to include specific training within Primary Teaching Degrees in active methodologies such as GBL due to its growing interest and effectiveness. This is especially important since teachers would find contexts in which there would not be economic resources to buy already made or technological tools such as tablets, so they would have to create their own. Following this, there are some considerations for game designers so as to provide more opportunities to implement GBL and make it more inclusive. There is a need for more games at Primary Education level both, digital and analogue, since those tend to be more focused on higher levels. Similarly, the development of more APPS such as Plickers is necessary for which individual devices like mobile phones or tablets are not required to play. This is due to the fact that mobile phones are not allowed at this level and, in any case, not all students have one; furthermore, not all schools have computers or tablets for all their students.

To conclude, this study has strong points that deserve to be mentioned. First of all, from the three studies carried out about this issue (Adelantado *et al.*, 2018; Dourda *et al.*, 2014; Mateo, 2020), this is the only empirical study with control and experimental groups as well as with pre and post-test design both, at a national and international level. Hence, it provides an initial empirical insight into the effect of GBL within CLIL settings. Similarly, it raises the issues of planning and implementing GBL, emphasizing these within determined contexts such as in those of high cultural diversity and backgrounds and low resources. Therefore, these results contribute to the start of a thread of research about the effectiveness of GBL in CLIL contexts, but also as a pedagogical tool to provide attention to diversity within bilingual contexts as well

as an addition of evidence to the growing body of literature about GBL. Moreover, this study and findings enhance the understanding of GBL planning and implementation as well as the issues involved in successfully doing so which should be taken into consideration by educators, researchers, game designers, and educational stakeholders. Hence, it should always be kept in mind and remembered that games must be considered as resources, as a means and vehicle of learning and not the goal in itself as this study and others have demonstrated (Mosquera, 2019). Having said that, this study is a START UP within the research and educational field about GBL instead of a GAME OVER.

7. References

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8. Appendixes

8.1. Appendix 1. Stuck in Modern Spain 20th Century Teaching Unit Lesson Plan

<table>
<tr><th colspan="4"><u>Stuck in Modern Spain (20th Century) Teaching Unit Lesson Plan</u></th></tr>
<tr><td>Date: 25/02/2020-</td><td>Class:
6.º A (standard)
6.º B (game-based)</td><td>Timing: average of 45´ per session</td><td>Subject: Social Science</td></tr>
<tr><td colspan="4">Topic: Modern Spain: the 20th Century</td></tr>
<tr><th colspan="4">Social Science Contents</th></tr>
<tr><td colspan="4">Modern Spain. The Restoration System (1875-1923)
15. Knowledge of some people of the Restoration period within the political and cultural context such as the kings Alfonso XII and Alfonso XIII, Antonio Cánovas del Castillo or the writers Benito Pérez Galdós and Pío Baroja.

Modern Spain: the 20th Century
17. Location in chronological order of the periods of the Republic, Civil War and Francoism.
18. Knowledge of some important dates of the current democracy: the Spanish Constitution (1978), the incorporation of Spain to the European Economic Union (1986) and the substitution of the peseta by the euro as ordinary currency (2002).

The timeline
19. Location within a timeline of the Spanish history ages and indication of the various stages.

Living in society. The Constitution of 1978
20. Identification of the most important democratic principles established in the Constitution and explanation of the importance of the Constitution for the well-functioning of the Spanish State.

Common content of all the stage (Presentation of the assignment done)
6. Coherent and accurate oral exposition of content related to the topic studied.
7. Precise and rigorous use of the appropriate vocabulary.
8. Capability of summarising, both orally and written, the information obtained, and the work done.</td></tr>
<tr><th colspan="4">Learning Objectives</th></tr>
<tr><td colspan="4">Students will be able to:
Understand the twentieth century in Spain and how it influenced our contemporary history.
Identify and explain the most important historical events of the twentieth century in Spain.
Understand the importance of the great changes in Spain in the twentieth century.</td></tr>
</table>

- Identify the main characteristics of the Second Republic.
- Know and explain the main events of the Spanish Civil War.
- Understand the dictatorship of Franco in Spain.
- Understand and explain the transition to democracy following 1975.
- Know and explain the main artistic movements and artists and writers of the 20th Century.
- Know and differentiate the different political regimes.
- Explain the consequences of the Civil War on living conditions and society.
- Identify the characteristics, values and interests that define each political regime.

Adapted from: Oxford Educación (2019).

Linguistic Contents

Language of learning (passive; past simple; there was/were/wasn´t/weren't; adverbs of time (when, during, after); connectors; prepositions (by, in); conjunction (because).

Key vocabulary: censorship, dictator, dictatorship, left-wing, military coup, Nationalist, resigned, right-wing, suspended, rebel, rebellion, Republicans, supported, reforms, successor, terrorists, democracy, transition, currency, branches, executive, legislative, judicial, obey, monarchy parliamentary, referendum, vote, bombing, concrete, cubism, steel, surrealism, abstract art, reality.

Key structures:

- The (Second Republic) was established in (1931).
- The (Restoration) started in (1874) and ended in (1923).
- The (Restoration) began in (1874) when (Alfonso XII became king).
- The (dictatorship) of (Primo de Rivera) began in (1923).
- The (Constitution) (was abolished) and (the king lost most of his powers).
- During the (40s) there (wasn´t) (much food).
- In (1973), (Admiral Carrero Blanco was killed by ETA).
- A lot of (people) were killed by (their political opponents).
- During (his reign), there (were) (political and social conflicts).
- The (Soviet Union) supported the (Republicans).
- The Constitution established that…
- (Political parties) became (illegal).
- The (press) was controlled (by censorship).
- (Surrealism) represented (imaginary scenes and fantasies).
- Its main representative(s) (was)(were) Pablo Picasso.
- I (think, believe/´m certain) that…

Language for learning:

- Strategies for reading and understanding a text.
- Strategies for selecting relevant information.

- Strategies for describing and explaining.
- Strategies to justify own opinion.
- Strategies to improve writing and speaking.

Language through learning: classroom debates, presentations, discussions, problem solving…

Cognition

LOTs

Remembering

- To make a timeline including the most important events, dates and people during the 20th Century.

Understanding

- To explain the main events (nationally and internationally) that led to the different conflicts and political regimes in Spain.
- To understand the relationships between art and history.
- To understand art as a means of expression and vindication of social, political conflicts.
- To understand the link and consequences of the past to the present days.
- To explain the information found about the main artists of the 20th Century.

Applying

- To compare the different political regimes (dictatorship, republic and democracy) based on their characteristics, interests and values.

HOTs

Analysing

- To investigate the relationship between the Second Republic and its principles/values and some pieces of art related to it.
- To identify the values and symbology of the Second Republic and Dictatorship reflected in their schools.
- To investigate some of the main artists of the 20th Century, their life, main pieces of art.

Evaluating

- To justify the importance of democracy.
- To assess the pros and cons (when possible) of the different political regimes.
- To justify their selection of artist and painting to reinterpret.

Creating

- To design a political regime based on those studied.

Culture

- The evolution of life and beliefs in Spain throughout the 20th Century because of the different political, social and cultural events and their heritage and presence in the present.
- The way of living within different daily aspects such as school and the differences based on the valid political regime within each period.
- To understand and appreciate art as a form of expression and vindication, valuing their different manifestations, artistic movements and using them as a source of pleasure and enrichment.

<table>
<tr><th colspan="2">Methodology</th></tr>
<tr><td colspan="2">Learning by discovering
Cooperative learning
Active learning
Game-Based Learning
Investigating projects (differentiation)
Questioning
Expert groups</td></tr>
<tr><th colspan="2">Teaching Lesson Plan</th></tr>
<tr><td colspan="2">Session 1: Restoration and Primo de Rivera´s Dictatorship</td></tr>
<tr><td>Resources

- PowerPoint (slides 1-3)
- Domino (game-based)
- Worksheet (homework)</td><td>Steps
1. Present the topic and find out the students´ prior knowledge (slide 2), modelling the language (key vocabulary and structures) which are about to be explained and worked.
2. Analysis activity based on questioning while explaining these two periods, asking questions, showing images and videos (when possible) and linking the new information with the previous one.
3. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the textbook.
4a. (Game-based) Explain and play the domino and then, fill in the worksheet. Finish the worksheet at home as homework and paste it in the notebook.
4b. (Standard) Fill in the worksheet looking for the information in the textbook or the graphic organiser copied in class. Finish the worksheet at home as homework and paste it in the notebook.</td></tr>
<tr><td colspan="2">Session 2: Second Republic</td></tr>
<tr><td>Resources

- PowerPoint (slides 4-5)
- Puzzles (game-based)
- Questions Second Republic (standard)</td><td>Steps
1. Remember and recall the periods studied the day before and link them to the new period which is about to be explained (slide 5).
2. Analysis activity based on questioning while explaining the Second Republic, asking questions, showing images and videos (when possible) and linking the new information with the previous one.</td></tr>
</table>

	3. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the textbook. 4a. (Game-based) Explain, play and organise the puzzles and then, start filling in the worksheet. 4b. (Standard) Start answering the questions on the worksheet looking for the information in the textbook or the graphic organiser copied in class. **5.** Finish the worksheet at home and paste it in the notebook, looking for information about activity 7 which will be presented at the beginning of lesson
Session 3: Spanish Civil War	
Resources -PowerPoint (slides 6-9). - Who wants to be a millionaire? (game-based) - Questions (standard) - Timeline 1 (homework)	**Steps** 1. Remember and recall the periods studied the day before and link them to the new period which is about to be explained (slide 6-7). 2. Analysis activity based on questioning while explaining the Civil War, asking questions, showing images and videos (when possible) and linking the new information with the previous one. 3. Analysis activity based on diagram construction: to scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the textbook. 4a. (Game-based) Review and consolidate the content learnt through the game *Who wants to be a millionaire?* 4b. (Standard) Review and consolidate the content learnt through the written test. 5. For homework, do a timeline in the notebook with the images provided, including the dates and events studied during this week.
Session 4: Franco´s Dictatorship	
Resources - Listening worksheet (suspended since only few	**Steps** 1. Present activity 7 of the Second Republic (lesson 2) to the rest of the class next day during the first 10 minutes. The remaining

students did the Second Republic questions) - PowerPoint (slide 10). - Find the school differences (game-based) - School differences worksheet (standard)	students complete the worksheet with the information provided by their classmates and paste it in their notebook. 2. Remember and recall the periods studied the week before and the dictatorship as a starting point of the present session. 3. Analysis activity based on questioning while explaining the Dictatorship, asking questions, showing images and videos (when possible) and linking the new information with the previous one. 4. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the textbook. 5a. (Game-based) Explain and play the game *Find the differences* between a picture of a school from the Second Republic and another from the dictatorship. 5b. (Standard) Show the students the pictures of a school from the Second Republic and dictatorship and ask them to name the differences and link them to their values/symbology. 6. For homework, ask the students to complete the table included in the worksheet with the differences between the two pictures and link them to the values, ideologies of each political regime.
Session 5: Society during the Dictatorship	
Resources - PowerPoint (slides 11-14). - Memory cards (game-based) - Worksheet writing (homework)	**Steps** 1. Briefly remember and recall the periods studied the week before and the dictatorship as a starting point of the present session. 2. Analysis activity based on questioning while explaining Society during Franco´s dictatorship, showing images and videos (when possible) and asking questions and linking the new information with the previous one. 3. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the

	textbook. 4a. (Game-based) Explain and play the game *Memory Cards,* linking the years 40s, 50s, 60s and 70s cards with their events within each period. 4b. (Standard) Ask the students to remember in pairs the events through the years studied (slide 13). **5.** Explain how to do the writing worksheet for homework and paste it in the notebook.
Session 6: Democracy	
Resources - PowerPoint (slide 15). - Taboo (game-based) - Definitions worksheet (standard) - Timeline 2 (homework)	**Steps** 1. Briefly remember and recall the periods studied and state that this is the last period that lasts until the present day. 2. Analysis activity based on questioning while explaining the democracy and changes introduced which are still being followed, showing images and videos (when possible) and asking questions and linking the new information with the previous one. 3. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree diagram) while explaining on the blackboard with the main information provided in the textbook. 4a. (Game-based) Explain and play the game *Tabu* with the main concepts and vocabulary worked within this period. 4b. (Standard) Ask the students to do the worksheet about the main concepts of Democracy in pairs.
Session 7: Art in Modern Spain (20th Century)	
Resources - PowerPoint (slides 16-17) - Match authors and artistic movements (game-based) -Worksheet (standard) -Timeline 3 (homework) - Art and Social research project (homework) - Evaluating activity	**Steps** 1. Briefly remember and recall the periods studied and introduce the last topic to be studied: art. 2. Analysis activity based on questioning while explaining the most important painters and artists in Modern Spain, asking questions, showing images and videos (when possible) and linking the new information with the previous one. 3. To scaffold the explanation and help the students to connect and organise the information, do a visual organiser (tree

	diagram) while explaining on the blackboard with the main information provided in the textbook. 4a. (Game-based) Explain and play the game to match artists, their names and art styles. Then, all of them have to write a sentence per art movement including this information. The group that finish first would be the winner. 4b. (Standard) Ask the students to discuss and do in pairs the worksheet about the artists, works and art styles. 5. Ask the students to make timeline 3 for homework. 6. Send the students the instructions of the Art and Social research project for homework since the planning had to be changed due to the imminent school closure because of the state of alarm of the coronavirus.
Session 8: Who stole the painting? (ESCAPEtheclassROOMs) (suspended)	
Resources -ESCAPEtheclassROOM materials (game-based) - Review worksheet (standard)	**Steps** ******This was suspended due to the closure of schools.***
Session 9: Evaluation (suspended)	
Resources -Test & written report - Rubrics	******This was suspended due to the closure of schools. This instrument was substituted by the emergency assessment carried out during session 7.***
Assessment	
Assessment for Learning (AfL) During the development of the teaching unit, the daily worksheets and tasks will be assessed to monitor the students´ progress and understanding, as well as to adapt the teaching unit and practice. All of these work the content established in the Primary Curriculum of Madrid (Decree Law 89/2014) and prepare students for the evaluation and assessment at the end of the TU. Moreover, these were part of the students´ notebook mark, so students were checked daily if they did the work and included their worksheets and tasks in their notebooks. It is important to say that the students within the control group had more worksheets in their notebooks, those that were carried out instead of the games at the end of each session, which were assessed too. Activities and tasks assessed were the following:	

S1: Restoration & Primo de Rivera´s dictatorship (homework worksheet).
S2: Second Republic (homework worksheet).
S3: Timeline 1 (homework task); *Civil War questions (* standard).*
S4: Second Republic and Francoism School differences (homework worksheet).
S5: Society during Francoism (homework writing worksheet).
S6: Timeline 2 (homework task); *definitions worksheet (* standard).*
S7: Timeline 3 (homework task); *art worksheet (* standard).*
S8: ESCAPEtheclassROOM (game-based); worksheet (standard) (***suspended).

Assessment of Learning (AoL)
This teaching unit was finally assessed and marked based on:
S7: TU emergency test which replaced the test of Session 9; Art and Social research project report (homework) which was individually adapted since it was planned to be done in groups; and the post-test.

8.2. Appendix 2. Online Resources of the Teaching Unit

8.2.1.Appendix 1. Session 1. PowerPoint Presentation

Link to PPT: https://drive.google.com/open?id=11R-7FTOgion51wcC3bymG3S1P7XBICRg

8.2.2.Appendix 2. Session 1. Domino (GBL)

Link to domino: https://drive.google.com/open?id=10Tib7b6GNIfSSi8rvRuVjfQ0VGGpzZ1R

8.2.3.Appendix 3. Session 1. Worksheet (homework)

Link to worksheet:

https://drive.google.com/open?id=1VRIG5kuB1d1_LNOWoWdxpX6NOi4n3_ja

8.2.4.Appendix 4. Session 2. Second Republic Puzzles (GBL)

Link to puzzles: https://drive.google.com/open?id=1o1r3lPD_uwLI9f_TA-VMwcNHxgod4lE5

8.2.5.Appendix 5. Session 2. Second Republic Questions (standard)

Link to worksheet: https://drive.google.com/open?id=1fF9Shj1jjdZm-INeDqFTogSslbIND6sz

8.2.6.Appendix 6. Session 3. Online Game `Who Wants to Be a Millionaire?´ (GBL)

Link to the online game: Who wants to be a millionare?

8.2.7. Appendix 7. Session 3. Multiple Choice Questions Worksheet (standard)

Link to worksheet:

https://drive.google.com/open?id=1qbugG0DvcTBXCQ_l5RyCUWx6anBii9bs

8.2.8. Appendix 8. Session 3. Timeline 1 (homework)

Link to Timeline 1:

https://drive.google.com/open?id=1kc8zeeqyFWXcQjOrc1m5Jxfbjy6AUaeI

8.2.9. Appendix 9. Session 4. Find the School Differences (GBL)

Link to game https://drive.google.com/open?id=1fQ7oGuOAZBGXsszW3-12JWRWN1KZ-I6g

8.2.10. Appendix 10. Session 4. School Differences Worksheet (standard)

Link to worksheet:

https://drive.google.com/file/d/1EImx8V4XRI0Zt3E3bdhgksrney0PcqEc/view?usp=sharing

8.2.11. Appendix 11. Session 5. Memory Cards (GBL)

Link to memory cards:

https://drive.google.com/open?id=1AIacqD9xB31QsYslEkPgtAY2R4P8oeUt

8.2.12. Appendix 12. Session 5. Writing Table (homework)

Link to writing table:

https://drive.google.com/file/d/1sbfuVw9b5XYwwjUinU14fCc211i_k2J5/view

8.2.13. Appendix 13. Session 6. Taboo (GBL)

Link to Taboo: https://drive.google.com/open?id=1pTbXScMjUl6MnEVQ-dWDT6jQwBYemKow

8.2.14. Appendix 14. Session 6. Definitions Worksheet (standard)

Link to worksheet:

https://drive.google.com/open?id=18NzfikDkEoplMlOBDotmKOnJf368RqcF

8.2.15. Appendix 15. Session 6. Timeline 2 (homework)

Link to Timeline 2: https://drive.google.com/open?id=1M-NLThdgxKv7MEYsPvQKmeKi2UcQc7qS

8.2.16. Appendix 16. Session 7. Art Matching Game (GBL)

Link to game: https://drive.google.com/open?id=10kVENnUcksIPEADoOgUXI56NBZ4fr2Pl

8.2.17. Appendix 17. Session 7. Worksheet (standard)

Link to worksheet: https://drive.google.com/open?id=12c4qsxBGT4xMptJ8sQATYcXA2-x3f4SN

8.2.18. Appendix 18. Session 7. Timeline 3 (homework)

Link to Timeline 3: https://drive.google.com/open?id=1Z3WeTVDlAJJ4RGJHPyjILqt-XoQN2kjz

8.2.19. Appendix 19. Session 7. Evaluating Activity

Link to worksheet: https://drive.google.com/open?id=1p7IDSzU7GsZ-A0oVZqaTLKG2iiMSw-KW

8.2.20. Appendix 20. Session 7. Art and Social Science Research Project

Link to research project instructions: https://drive.google.com/file/d/1Q7zoVWpVflOWKOu4Xx5wdF9cEi-Le5iB/view?usp=sharing

8.2.21. Appendix 21. Session 8. ESCAPEtheclassROOMs (GBL)

Link to ESCAPEtheclassROOMs: https://drive.google.com/file/d/1T35hbd415o3MJg0d3Uai0bdO_BGbkrBy/view?usp=sharing

8.2.22. Appendix 22. Session 8. Review Worksheet (standard)

Link to worksheet: https://drive.google.com/open?id=1RJckDtDTi-UKyIXE9-ZANWk5UQFdShY8

8.2.23. Appendix 23. Session 9. Final Test

Link to test: https://drive.google.com/open?id=1s-N7wjgoVWtiGI8Tlp9F8AZ-fuzsjdW4

8.2.24. Appendix 24. Teaching Unit Rubrics

Link to rubrics:

https://drive.google.com/open?id=1Aggfa418xU0q8744HDCquVxbFBnquYFW

8.2.25. Appendix 25. Pre-Test and Post-Test to Measure Academic Performance

Section 1: Social content Modern Spain 20th Century

1. **The Constitution of 1978 gave us…(look for the false one)…**
    a) Responsibilities and rights. Everyone must obey the law.
    b) Government divided the power into three branches: legislative, executive and judicial.
    c) Democracy.
    d) Only men could vote.

2. **Which kings were involved in the Restoration?**
    a) Isabel II and his son Alfonso XII
    b) Alfonso XII, his wife María Cristina and their son Alfonso XIII
    c) Primo de Rivera
    d) Franco and his daughter

3. **Benito Pérez Galdós and Pío Baroja were…**
    a) Politicians.
    b) Painters.
    c) Writers.
    d) Kings.

4. **What is the correct order of events?**
    a) Civil War, Second Republic, Dictatorship of Franco, Restoration, Constitution (democracy).
    b) Constitution, Civil War, Restoration, Second Republic, Dictatorship of Franco.
    c) Dictatorship of Primo de Rivera, Civil War, Dictatorship of Franco, Constitution (democracy), Second Republic, Restoration.
    d) Restoration, Dictatorship of Primo de Rivera, Second Republic, Civil War, Dictatorship of Franco, Constitution (democracy).

5. Juan Carlos I became king and…

a) He was the monarch of the head of state but he doesn´t govern nor make laws.

b) Political parties became illegal.

c) There weren´t democratic elections.

d) The new Constitution was abolished.

Section 2: Linguistic content Modern Spain 20th Century

6. Vocabulary. Choose the words for these definitions.

a) When people are not allowed to express themselves freely.

b) The sudden and forceful attempt to take by force the state power.

c) It is the right of self-government.

d) money system.

a) democracy; b) dictatorship; c) independence; d) pesetas.

a) freedom; b) republic; c) democracy; d) euros.

a) *censorship; b) military coup; c) regional autonomy; d) currency.*

a) dictatorship; b) military coup; c) democracy; d) currency.

7. Grammar- morphology. Choose the correct missing words.

a) _____ 1973, there _____ a terrorist attack.

b) Carrero Blanco was killed ____ ETA.

c) _____ Alfonso XIII´s reign, there _____ political and social conflicts.

d) People were _____ or _____ because of their opinions.

a) in, was; b) by; c) during, were; d) killed, imprisoned.

a) during, were; b) for; c) in, was; d) kill, imprison.

a) in, is; b) by; c) during, are; d) killing, imprisoning.

a) in, were; b) by; c) during, was; d) killed, imprisoned.

8. Grammar- syntax. Choose the correct order for this sentence:

democracy after to in The Juan Carlos began King 1975. transition became

a) in 1975. The transition began to democracy after Juan Carlos became king

b) The transition to democracy began after Juan Carlos became king in 1975.

c) after transition to democracy began in 1975. The Juan Carlos became king

d) The transition in democracy began to Juan Carlos became king in 1975.

9. **Reading comprehension. During the Second Republic, people were allowed to talk about their political ideals freely, meet with others who had the same ideals and women were allowed to vote (all people over 18 years old). Choose the sentence that best represents the text.**

   a) People couldn´t speak about their political ideas nor meet with other that thought the same and women couldn´t vote.

   b) People were given more rights such as freedom of speech, freedom of assembly and freedom to vote over 18 years old except for women.

   c) The people were given more rights such as freedom of speech, freedom of assembly and freedom to vote to all people over 18 years old, including women.

   d) The people weren´t given more rights such as freedom of speech, freedom of assembly and freedom to vote.

10. **Listening comprehension. Choose the correct answer.**

Link to the audio: https://drive.google.com/open?id=1d8jPB2o-BeYCtURJrw8mMi1E6YretMtM

Transcription: Spain wasn´t the only dictatorship in Western Europe, Portugal was also a dictatorship. The Portuguese dictatorship ended in 1974, it was a peacefully revolution without any violence.

   a) Spain and Portugal were dictatorships in orient Portugal.

   b) The Portuguese dictatorship ended in 1947.

   c) The Portuguese dictatorship ended violently.

   d) *All the sentences are false.*