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Young learners' vocabulary acquisition in an EFL context

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Abstract

Different studies have already researched the importance of using technology to teach vocabulary to English as a Foreign Language (EFL) learners. However, most of them have not targeted young learners. The present study aims to compare and analyze how activities created and presented with technology impact on lessons, whether they have a beneficial effect on vocabulary acquisition and if students prefer to work with ICT. Thirty-nine children (two classes) from 1st of primary participated in the study, which consisted of two lessons (three sessions each with and without ICT) and two kinds of instruments were used: pre-tests to check their prior knowledge and post-tests to see improvements, and thermometers, interviews and observations to measure their perceptions regarding their interests about the activities. Results showed that both methods promoted vocabulary acquisition, but the improvement after the lesson without technology was a bit higher. Data demonstrated that students' productive vocabulary was lower than the receptive one irrespective of the techniques. Regardless of the best results after the lesson without ICT, students' perceptions leaned towards technological activities created with Genially, Wordwall, Liveworksheets… because of their interaction, innovation, and appeal.

Keywords: Vocabulary acquisition; ICT; motivation; receptive vocabulary; productive vocabulary

Resumen

Diversos estudios han investigado la importancia de utilizar la tecnología para enseñar vocabulario a estudiantes de inglés como lengua extranjera (EFL). Sin embargo, la mayoría no se han centrado en alumnado joven. El presente estudio pretende comparar y analizar cómo influyen en las clases las actividades creadas y presentadas con tecnología, si benefician la adquisición de vocabulario y si el alumnado prefiere trabajar con TIC. Treinta y nueve niños y niñas (dos clases) de 1º de primaria participaron en el estudio, consistió en dos lecciones (tres sesiones cada una con y sin TIC) y se utilizaron dos tipos de instrumentos: Pre-tests para comprobar sus conocimientos previos y post-tests para ver las mejoras, y termómetros, entrevistas y observación para medir sus percepciones respecto a sus intereses sobre las actividades. Los resultados mostraron que ambos métodos fomentaban la adquisición de vocabulario, pero la mejora tras la lección sin tecnología fue un poco mayor. Los datos demostraron que el vocabulario productivo del alumnado era inferior al receptivo sin importar las técnicas. Independientemente de los mejores resultados tras la lección sin TIC, las percepciones del estudiantado se inclinan hacia las actividades tecnológicas creadas con Genially, Wordwall, Liveworksheets... por su interacción, innovación y atractivo.

Palabras clave: Adquisición de vocabulario, TIC, motivación, vocabulario receptivo, vocabulario productivo.

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1. INTRODUCTION

Regarding language education, different skills and concepts need to be the focus of teaching. It is always important to think of a language as a sum of all of its components and focus on all of them. However, teachers can always choose to emphasize one or two parts of the whole system for varied academic reasons. When learning English, teaching has usually been structured focusing on its four skills: reading, listening, speaking, and writing. Nevertheless, an essential aspect of the language so as to be able to develop those skills is vocabulary because, after all, how can we express ourselves if we do not know the words?

As a matter of fact, it is vocabulary knowledge that makes people's communication effective. Depending on the context and the aim, the vocabulary size needed for understanding is different. Studies from Laufer and Aviad-Levitzky (2017), Nation (2006), and van Zeeland and Schmitt (2013) showed that approximately 3,000-word families are needed to understand a text in an L1, but 5,000-word families are needed if one wants to read texts for pleasure. These authors claim that regarding spoken texts in an L1, from 6,000 to 7,000-word families are required to comprehend them. In addition, English as a Foreign Language learners (EFL) only need to know the 2,000 – 3,000 most frequent words in English (Nation & Waring, 1997; Schmitt & Schmitt, 2014; van Zeeland & Schmitt, 2013) to be able to communicate orally and in written form, but for functional language proficiency, the quantity of words needed is set to 5,000 (Nation & Waring, 1997; Schmitt & Schmitt, 2014; van Zeeland & Schmitt, 2013). Plus, students learn the most frequent 1,000 words first and then, they continue acquiring the 2,000 most frequent words, then the 3,000, and so on and so forth.

Learning words might be hard due to the great number of words a language has. Nevertheless, it is essential to understand and create sentences. The more words one knows, the better one can express. However, we must bear in mind that even natives do not know all the words so this is a long and rough path that will never end but will enrich our languages. As Wilkins (1972, p.111) said: "Without grammar very little can be achieved, without vocabulary nothing can be achieved". So considering there is a basic number of words learners need to achieve to be able to communicate, every single new word acquired will make communication more effective and pleasant.

In order to teach vocabulary, different studies have been carried out. Most of them have their target on older students, but research regarding younger children is lacking. This paper investigates how teachers can instruct young students by using different resources. Technology is present in students' daily lives, and it is the moment to check if it is beneficial and useful in today's classrooms. For this,

varied apps (StoryJumper, Wordwall, LiveWorksheets, Genially, Plickers) were used so that one can analyse which one is better and has a major effect on students regarding their knowledge acquisition and their interests comparing them to non-technological resources.

2. LITERATURE REVIEW

2.1. Receptive and productive vocabulary

Before getting in-depth into this document, it is vital to understand what "knowing a word" means. As Richards (1976; 1985) suggested, it includes diverse aspects such as register, collocation, underlying forms and derivations, word associations, semantic values, and the implicit or non-implicit meanings that can be given to the words. The process of knowing a word is very complex and over time, studies have been done trying to understand it better and therefore reducing this process to fewer categories.

Research from Nation (2001) identified eighteen areas to be considered that could be grouped into three categories: Form, Meaning, and Use. When talking about Form, Nation (2001) stated that it comprises the word parts and the written and spoken form of the word. Regarding Meaning, it includes its referents, its associations, and the meaning itself. The last one is Use, and it is a wider concept, as one can think of considerable ways of using words in plenty of contexts. It includes grammatical functions, collocations, and constraints on use, which are subdivided into register, frequency, and so on.

As a matter of fact, the most fundamental aspects of word knowledge according to Laufer and Goldstein (2004) are Meaning and Form. Relating a word's Meaning to its Form is done at a very early stage of students' vocabulary learning process as what students do first is to connect the way a word is written or said with its meaning. (Henriksen, 1999; Jiang, 2002). Hence, these two aspects have been the ones that have received the most attention when learning. Therefore, it is quite common to find vocabulary activities that focus on the way the word should be written (Form) and associations among words, as well as the concepts or referents a word can have to express its meaning.

Along with this idea, there are two ways a word can be known. The knowledge can include recognition of the form, meaning, and contexts in which the word can be found, and this is called receptive vocabulary (passive) (Nation, 1990). On the other hand, the other type of knowledge consists of using the word correctly. This means writing, spelling, pronouncing, and using these words well in their varied contexts and this knowledge is called productive vocabulary (active) (Nation, 1990).

Recent studies have shown that "productive learning involves the knowledge needed for receptive use, whereas receptive learning may not involve the knowledge needed for productive use" (Webb & Nation, 2017, p. 34). Since productive vocabulary knowledge implies a major demand and effort as it needs a more active role, students will be exercising their cognitive abilities way more. The output theory from Swain (1995) enlightens how significant it is to produce output for foreign language learners, considering that they are in an active role that requires a higher cognitive effort and gives the opportunity to process language more deeply.

Therefore, one can say that this extra effort is what makes it harder for students to produce rather than to identify. In this regard, it is shown that receptive vocabulary comes before productive vocabulary (Montero, 2022b). These are some of the reasons why different findings prove that learners' receptive vocabulary size is larger than their productive one (Zhong, 2018). However, it remains a mystery how words evolve from receptive to productive knowledge, due to the complexity of the concept of knowing a word. Thus, when analyzing their relationship, one has to consider its multi-aspect framework knowledge. Whereas receptive knowledge is acquired by reading and listening, productive knowledge is more related to the skills linked to production: writing and speaking (Laufer & Aviad-Levitzky, 2017; Nation, 2006; van Zeeland & Schmitt, 2013).

It is important to add that Laufer (1998) explained that in the first years of education (lower stages), both, the receptive and the productive sizes of vocabulary knowledge are similar as they are quite small. That is because foreign language learners use all the words they know very frequently and a lot, and as a consequence of their daily repetition, the transition from passive to active knowledge is more common, making the size of both vocabularies alike.

Regarding productive vocabulary learning, there is controlled and free vocabulary practice. In the former, the production of words is triggered by a task, while in the latter, the production of words depends on one's free will (Laufer & Nation, 1999). Both, receptive and productive vocabulary should be included in the teaching process. For this, one needs to know strategies and factors that intervene in vocabulary acquisition.

2.2. Teaching vocabulary in the classroom

Given the complexity of what it means to know a word, vocabulary teaching is quite a challenge for teachers, as it might be a complicated, long and unexciting process for many EFL learners. In EFL contexts, most learners' vocabulary acquisition is done within the classroom as it is the only specific

place to learn the language. So, the input students receive is usually from the teacher and the textbooks. In addition, there are other sources outside the classroom from which students can learn vocabulary, but one cannot always count on this variable as there might be students whose only input (and output) take place within the school.

In addition, word learning, especially in the classroom, can be intentional (explicit learning) or incidental, while the student is focusing on something else (Celce-Murcia et al. 2014). Some research from Wood (2001) explains that it is not enough with only one of these two options for vocabulary learning and both need to be used in the classroom. For that, it is crucial to encourage a teacher, to make them receive and use these new words in different contexts (intentional and incidental).

Besides, Biemiller (2001) claims that intentional, organized, and contextualized vocabulary must be more present within the learning processes, at least during the first years of primary education through oral sources. This is because an active role when teaching helps students to gain a wider range of vocabulary that will make it easier for them to learn words as well as language as a whole. As a consequence, students who have a bigger vocabulary knowledge are prompt to learn easier by incidental exposure because of their broader scope of vocabulary which makes them relate and connect words in a simpler manner (Laufer & Nation, 1999; Jiménez-Catalán & Ruiz de Zarobe, 2009).

Vocabulary learning for EFL learners is a great challenge due to the differences among students. It is a fact that students are diverse regarding their backgrounds, and contexts, but their learning processes are indeed another fundamental variable. Their learning styles (defined as "an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills" (Reid, 1995, p. viii) can differ depending on the modalities (related to their predominant senses) students use predominantly when learning. These learning styles can be visual, auditory, tactile, or kinaesthetic. This is also named perceptual learning style, and these senses help to process information and learn vocabulary by comprehending and storing the learning (Montero, 2022a).

"The senses of sight, hearing, and touch are thought to be the most relevant modalities found in an FL classroom" (Montero 2022b, p.142). Visual learners learn mainly by using their sight by reading, watching pictures, seeing charts, visual notes, and drawings… Auditive learners use their auditive sense more by paying attention to lectures, oral instructions, discussions, and role-playing tasks... Tactile use their sense of touch and kinaesthetic learners, movement for learning. They acquire knowledge thanks to activities with movement, experiments, buildings, manipulative materials, etc. (Dörnyei, 2005; Dörnyei & Ryan, 2015; Oxford, 2003).

However, it is not as simple as it seems as there might be learners whose unique learning style is just one sense (unimodal learners), but others whose learning style is mixed (more than one sense/learning style). That is what researchers call mixed modality preference (multimodal learners). As Montero (2022a) explains in her article, it is essential to be aware of students' learning profiles because it makes students cognizant of their learning preferences, making them know their own strengths and their own weaknesses.

It is important to mention that there is also a difference when learning a foreign language if the learning is being done in a bilingual context or not. There has been a study from Mora (2014) that compares the quantity of receptive vocabulary students have in a bilingual context and in a non-bilingual context. The results indicated that the bilingual group had better punctuation in French and English (as foreign languages) than the non-bilingual group in their general vocabulary level. However, the difference in the vocabulary size from the English language was not very high. She concluded there were no significant differences between these two groups (in English). This was due to the bilingual context being in French, and one could only see a significant difference in that language (the second language). Mora (2014) explained that the higher exposure students had to the second language was optimal to widen their receptive vocabulary scope in that language.

Some other factors that need to be considered because they influence vocabulary acquisition are the so-called intralexical and extralexical factors. Laufer (1994) explains that the first are the ones that concern vocabulary itself, such as the length of the word, its grammatical category, and the dispersion with which a word appears throughout the process of learning a foreign language. On the other hand, extralexical factors comprise the learners' biological, cognitive, and emotional conditions. As examples of this category, one can highlight motivation, age, and knowledge of another foreign language as factors when learning vocabulary (Alcaraz Mármol, 2021).

Previous research has shown that the best way to teach vocabulary is to do it "in a deliberate, systematic way and encourage active learning outside class" (Dronjic, 2019, p. 41) as well as giving the students the opportunity to learn on their own. The main goal is for learners to first acquire at least 3,000-word families, which, as previously mentioned, is the basic level to communicate in a language. To achieve this objective, students have to learn through active, focused instruction. A great way to retain vocabulary is to try to use words several times in different activities over a large period of time, instead of using them just in one sitting (Dronjic, 2019).

When learning a foreign language, there is no exact practice that should be followed, since every class and each student is different and has a distinct way of learning. Dronjic (2019) proposes to first present a set of words (as receptive vocabulary) and then use them in several activities as well as finishing with a free-communication task (oral or written) to give them the option to turn that receptive vocabulary into productive. In addition, a good resource one can use is to drill and recall the words previously learned with flashcards that could later be used for systematic vocabulary review on their own. As Ackermann and Rasch (2014) explained, human semantic memory is responsible for the storage of word meanings and consolidation throughout the days.

Moreover, when teaching vocabulary, it is essential not to focus on just learning meaning from L1 to L2, but to combine both types of transfer-appropriate processing and make it the other way around as well, from L2 to L1. Even though lexical processing from L1 to L2 is more difficult, it is vital to make them associate words both ways. Besides, Laufer and Shmueli (1997) clarify that words that are presented in simpler contexts like lists or sentences are memorized better than throughout elaborated or even simple texts. Establishing a form-meaning relationship in memory is the first thing that needs to be done when learning words (Dronjic, 2019). That is why, form-based activities help to recall vocabulary. Some tasks that can promote word remembering are to ask students to generate meaningful example sentences. More activities that help vocabulary learning are creating word families or focusing on their pronunciation (by transcribing for example). Studies from Nam (2010) suggest effective strategies for teaching vocabulary like the use of visual representations because they can help to retain the words. Another proposal is to make L1 and L2 translations (equivalent). The last ideas from the author are to implicate students in activities that require higher involvement like retelling a text, and to use the words in task-based vocabulary-learning activities. In addition, another strategy teachers can use for teaching can be technology. Prinzessinnadia (2013) claims that ICT are important and useful tools when learning languages, since from Early Childhood to Higher Education, ICT have been a great facilitator for the teaching-learning processes.

2.3. Learning with technology

Computer Assisted Language Learning (CALL) is a way of learning languages that uses a variety of technological resources. Casimiro and Fuentes (2020) claim it offers variety for teaching by using different tasks such as interactive multimedia tasks, multiple exercises for diverse languages, and different tools such as online dictionaries, grammatical correctors, email, blogs, wikis, and forums that can promote interaction among students as well as feedback from one another.

Investigations affirm that ICT are promoting English teaching-learning strategies on a global scale (Chambers & Bax, 2006; Chapelle, 2004, 2007; Chen, 2006; Davies & Hewer, 2012). Online games, presentations, and online worksheets make learning more enjoyable, and more motivating, and what is important to be mentioned, it is more student-centered thanks to the different approaches one can use when teaching. New methodologies and resources are useful to make learning more interesting for students (Casimiro & Fuentes, 2020).

Undoubtedly, studies have suggested that ICT have a great potential that can make a huge impact on today's and future lessons. When including ICT in the classroom, the teacher's role changes from being the only knowledge provider to a moderator, leaving students their own space to comment and explore. It is a more dynamic way to approach activities and use them as an educational tool. Plus, I should mention that it is one's own competence and capacities that make technology more or less useful for learning, as teachers are the ones who have to guide the learning processes.

According to Casimiro and Fuentes (2020), CALL studies have not really been executed until the eighties, but from then onwards, results regarding language teaching through ICT have shown that they help students comprehend better as well as learn faster. Garrett (2009) classified CALL into categories regarding its functions which are tutorial, engagement with authentic materials, and communication. Tutorial is related to instruction and mechanical drills which in the past two decades has evolved to communicative teaching methods and more innovative drill-and-practice activities; authentic materials engagement is related to using language in a significative way and adapting it to their reality. These materials provide support to aid students with the tasks they are assigned. Finally, communication is the pedagogy proposed as one of the goals that CALL has as it is one of the most important parts when learning a language.

As Cabero (1998) declared, technologies consist of information technology, microelectronics, and telecommunications, connected in interactive and interconnected ways, that can make humans experience new communicative realities. The author explained that some of the most important characteristics ICT have are immateriality (space where information flows), interactivity and interconnection (between user and technologies and among users), instantaneity (being able to stay connected), high picture and sound quality parameters (improvement in visual and hearing support), digitization (able to transmit sounds, animations, pictures, texts, interaction, links… in a universal format), influence in the process and diverse sectors (information society and globalization, contrast

information and build knowledge), innovation (improvement, change), the tendency to automatization (personal use and development) and diversity (for everyone and with different resources and stimuli).

How can teachers use ICT so that students get the best from them? As Morrissey (2007) explains, ICT on their own, without purpose do not work as effectively as they can work when combined with a methodology. This way, one can get the best from them. Plus, they have to be intentionally selected so that students end up learning the concepts or skills the teacher wants them to. As far as I am concerned, a great benefit of technology is that it can give students the option to discover by themselves. So, sometimes it is good to give them this opportunity and let them construct their learning path and knowledge. Besides, the teacher's role must be that of a guide, so it has to be there supporting students' learning and discovery processes. Furthermore, aims and objectives have to be previously prepared for greater achievement, as well as being conscious of the students' needs and their diversity.

Agreeing with Thompson (2006) and Carbonell (2012), one can classify ICT into two sections: Mass Media and multimedia resources. The main objective of Mass Media is to communicate information through a mean. They can be written such as texts, forums, newspapers, magazines, brochures, and books, or electronic such as tv, radio, laptop, and smartphone. The other one, multimedia resources, can mix different media with the aim to communicate and can be technologies (offline) like films or CDs and telematic (online) which sums every activity one can make with an internet connection like social networks, chats, email…

Teachers can use all these resources for their lessons, however, technologies can be used in the classroom depending on the equipment of the school. For example, there can be an "ICT room". Another option is to find the teacher's computer inside the classes or a Chromebook for every student. This gives students the opportunity to make things for themselves (autonomy) and work with technology more often. Plus, it promotes individual and group work as both are compatible with Chromebooks. Some schools have an Interactive Whiteboard (IWB) that makes learning more interactive and dynamic for students. CDs, DVDs, online worksheets, PowerPoints, blogs, podcasts, programs, and apps… are always options instructors have to work with. As a special mention, we can find projectors that make information or games accessible for everyone in the class to see.

When thinking about the connection between learning a language and technology, Domínguez and Fernández (2006) explain the advantages and disadvantages of combining both.

1. First, they explain the importance a computer has on kids and how *motivation* is related to these two concepts (technology and children). They connect it to leisure and to the autonomy and control over multimedia sources technology provides. Furthermore, ICT allow teachers to leave the book aside and provide more active tasks that appeal to students.
2. Another factor is *de-inhibition* as some students prefer this way of learning because they avoid embarrassing situations that can make them feel uncomfortable with the traditional approach.
3. Since there are a great variety of English *materials* or English learning materials, English is highly promoted. Besides, they can be conscious of the importance of the language.
4. The next aspect is *interaction* in all directions. Students with students, outside students, teachers, technology… Feedback can be received from anyone or anything and it is centered on the kids and their capacities.
5. *Autonomy* can be acquired through different tasks and discovery through hyperlinks and searches. Then, they can know what their weaknesses and strengths are. Plus, it facilitates *collaborative* learning as well.
6. *Visual and hearing support* is capable to give not only context but also scaffolding to students. It also supports *attention to diversity*, and it adapts to every individual and their level, working pace, schedule, and linguistic degree. Furthermore, skills and competencies are developed as an addition to the language they are learning. It is important to add pronunciation to this, as there are plenty of spaces that help students with the elocution of phonemes.
7. It also provides *creativity and flexibility* thanks to all its functions and available ideas one can find on the internet.
8. Automatic *feedback* is able to correct an activity easier and in a shorter period of time. It can be seen either by the teacher or the student (if the platform can make it).
9. It can also *reduce the time* the teacher spends in organizing and elaborating on didactic materials as one can find educational and already made-up activities.

There are studies that have demonstrated the benefits ICT have for teaching and learning. Edem et al. (2020) studied the use of ICT in teaching animal science using blended learning and its benefits for students and teachers. Blended learning is a combination of instructional methods: e-learning (online class) and traditional face-to-face class (Tayebinik & Puteh, 2013). The authors collected data through questionnaires from 80 students and 19 tutors. They wanted to know their ICT skill level and the benefits that blended learning provided to the participants. Results showed that there was no significant difference between the ICT skill level of students and teachers. Both, students and teachers gained from the use of blended learning. Some of the benefits reported were collaboration,

improvement in time efficiency, increment of student interest, longer focus, promotion of student autonomy, and easy provision of student feedback. They found out it also provided motivation for those who knew how to use them, and limitations for those who did not. In addition, it reported that it was essential to understand and manage ICT to use this methodology.

Another study from Nyairo (2019) showed EFL teachers' attitudes when using CALL tools. Online surveys were done to 91 teachers and four teachers were selected for an in-depth interview. Findings reported that teachers were confident using ICT. The author explained that depending on the access to resources and the skills the teacher had, different tools were used for EFL instruction. Usefulness was also enquired about, and all teachers strongly agreed on their favourable perception of ICT tools to enhance communication and access to information. They added that technology helped them with work organization, efficiency and contributed to their effectiveness as a teacher. In the interviews, they stated that CALL tools were more enjoyable for students. Data showed CALL was a great tool to enhance teaching and learning activities and the attainment of learning objectives with the potential to motivate students to learn better and more efficiently. Results also reported that the most popular tools were computer applications and web resources. Plus, technology was mostly seen as a complementary tool for instruction, assessment and learning motivation.

Kurt (2021) experimented with EFL young learners and analysed how technology-mediated tasks affected their English learning process. The paper stated that technology demonstrated effectiveness in improving areas like vocabulary or cultural awareness. Plus, it raised motivation and autonomy by making the student the centre of their own language learning process. This investigation analysed how ICT contributed to EFL learners' achievement in listening, reading and writing tests. Results demonstrated that the students who learned with the technology-mediated tasks had more positive attitudes toward learning and their self-efficacy beliefs in technology were enhanced.

2.3.1. Learning vocabulary using technology

As learning vocabulary is a complicated and arduous task, which is essential for language learning, it is worth exploring how using technology might aid in this process. Several studies have explored this matter. For example, Contreras et al. (2016) explored the value of implementing multimedia projects in a 6th grade class and found out that they helped students with their language proficiency and also improved their pronunciation. Nevertheless, the authors also emphasized the need for vocabulary instruction and the need to engage and promote meaningful and long-lasting learning within those projects.

Devia and Garcia (2017) focused on the impact of podcasting, language learning strategies, and collaborative work on the development of the oral skills of tenth graders and paid attention to vocabulary building, which improved by using three different strategies: cognitive, metacognitive, and social language learning. Their results indicated that students were positively influenced by these strategies that aimed at oral improvement. Results from vocabulary acquisition showed that they had expanded their vocabulary knowledge. In addition, students strengthened their mental processes, their own consciousness, controlled their emotions better, and gained self-confidence. Regarding collaborative work, it was a challenge, but it provided values like patience, creativity and organization. Hwang and Wang (2016) also studied this matter and implemented a computer game and a variety of guiding strategies in a 10th graders class. The findings showed that compared to typical classes, pupils' learning outcomes were noticeably better even though the learning involved was more cognitively demanding. As an additional result, they reported students were more engaged with the class than when learning with more traditional approaches.

Findings from Cabrera-Solano (2022) demonstrated that game-based learning through Genially increased EFL participants' (from 22 to 56 years old) academic performances and more specifically, their grammar and vocabulary. Regarding gamification, students perceived games based on their real learning needs increased their motivation. And even more when feedback was provided. They felt Genially useful (meaning that any user can learn, administer and comprehend the game) and attractive. Students pointed out that game-based learning through Genially made them improve their concentration and ability to recognize and use new vocabulary and grammar structures in English. As a whole, the author affirmed that EFL learners had the possibility to practice linguistic components and build meaningful learning though this learning environment which was evident to have helped them with their academic performances and have promoted their satisfaction levels.

Guaqueta and Castro-Garces (2018) studied the use of language apps as a didactic tool for EFL learners' vocabulary building. They used a mixed-methods approach in a rural community. Before the study, students' results were poor due to their low interest in foreign language learning. After trying to replace this lack of interest with something more interesting for students (technology), the authors reported improvements. Although it was a challenge because of connectivity problems, several positive results were obtained. First, students' perceptions of this practice were all positive. They also expressed their interest in English and its learning and students were also into reading in the English language as they felt more capable because they could understand better. As a stimulating fact, they

felt English subjects were more approachable as they could tackle information and topics, which they found more reachable and linked to their own interests and daily experiences.

Bueno-Alastuey & Nemeth (2022) also studied the effect of using ICT for vocabulary acquisition. This research paper analysed both receptive and productive vocabulary extending the scope of vocabulary research, which has tended to concentrate on receptive knowledge. The participants in the study were 23 adults who created podcasts and Quizlet flashcards. Their vocabulary retention with both methods was compared. No significant difference in receptive and productive vocabulary acquisition was found between the two tools. Students learned with both technologies but preferred to use Quizlet.

A recent study from Kristiawan et al. (2022) used Digital Storytelling (culture-based digital storytelling) as an approach to teaching English to EFL students. They used varied qualitative data methods to collect information and interpret it. Results show that their motivation increased. Plus, they developed their technology and digital literacy. They perceived technology complicated and time-consuming, but as the authors explained, after they became more familiar with these tools, their focus was more directed to pedagogy rather than technology. Other benefits they saw were collaborative work in groups that helped them build meaning on important topics, reduce stress and focus on communication. Regarding their vocabulary, it enhanced their engagement and achievement. Plus, they learned related vocabulary in the target language and could build a bridge between cultures.

Another study by Tseng et al. (2020) experimented with EFL learners and 3D virtual environments. Their idea was to provide students a rich and dynamic multimodal vocabulary learning. Results suggested that one of the advantages ICT gave teachers was the autonomous control of the learners. Another advantage was the engagement with the artifacts and the collaboration with partners.

Based on these studies, it seems technology can aid in learning vocabulary as it can help to turn this process into an interactive experience of discovery, developing in their pupils' attitudes of participation and taste for what they do, the ability to easily perform appropriate practical procedures and relate previously known concepts with new ones. Education nowadays has become a digital system in which ICT are a great source for the acquisition of effective and meaningful learning and knowledge. Therefore, attention, interactivity, innovation, and reinforcement of knowledge through the use of digital tools that motivate the student to generate the development of communicative skills and competencies are taken as fundamental aspects (García-Medina et al., 2019).

Until now studies concerning the effect of using technology have been carried out with adults or children in the last years of primary school but not with younger children. Furthermore, some apps have been tested, but still there are lots of apps that have not been examined. Because of the lack of research regarding these two variables, this study is going to be done with younger children (first graders) and more apps like StoryJumper, Wordwall, LiveWorksheets and Genially. Thus, observing and analyzing how technology affects vocabulary acquisition in six-year-olds using those apps.

3. METHODOLOGY

3.1. Research design

This study tries to show the acquisition of vocabulary using technology in the first cycle of primary education. Both quantitative data (gains in vocabulary knowledge) and qualitative data (perceptions of students) were collected in this mixed-methods quasi-experimental research.

3.2. Context and participants

The research has been conducted at a public school in Pamplona, Navarra (Spain) during a two-week period. The school follows the P.A.I. model so the students have 12 weekly sessions in Spanish, 4 weekly sessions of Basque (optional) and 12 further weekly sessions in English. They study English (5 weekly sessions), and Science (4 weekly sessions), Art (1 weekly session) and Ethical values or Religion (1 weekly session) in English. The class where the study was carried out is the first year of primary education, where these subjects are taught in a global way. All of the subjects taught in English are combined within a session.

Since the model of the school is P.A.I., a CLIL methodology is being followed. This means that a language other than the students' mother tongue, in this specific case English. is used as a medium of instruction in an educational setting (Dalton-Puffer, 2007). There are two different types of CLIL: Hard and soft. Hard CLIL is when the curriculum is taught in a foreign language, and the emphasis is on content instead of on language. On the other hand, soft CLIL happens when the emphasis is on learning the language instead of the content (Šulistová, 2013). Taking this into consideration, the focus of the school is on the vehicular language, so one can say that soft CLIL is being used because it is language-driven.

The school is well-equipped technologically speaking. In every classroom, there is a big Interactive Whiteboard (IWB) at the front that students can touch, paint or draw into with the pencil and learn

with this instrument. Plus, it has a projector, so one can show something small on the big screen for everyone to see. One can perceive that students' exposure to English and to technology is optimal, as both are highly promoted within the school.

The students who took part in this study were first graders from classes 1A and 1B and most of the participants were six to seven years old. The total number of participants was 39 students, 20 students from 1A and 19 students from 1B. There were some students with special needs, a student with a hearing impairment and disruptive behaviour and two students with language difficulties in speaking in 1A; and two students with disruptive behaviours in 1B. Before performing the experiment, the author of this article had been observing both classes and had seen that while 1A was louder and more active regarding participation and movement, their English level was a bit higher than 1B. Their predisposition for English classes was always good and they received the classes with enthusiasm. They learned English using a Project-Based Learning approach, following one common thread and guided by continuous questions asked by the teacher. The activities that they always performed were active, meaning that the students were involved in their own learning processes. When they had to use the IWB, they were excited as they liked active strategies and technology was part of their interests. This project was designed to take into account students' profiles (knowledge, the way they were taught and students' personal characteristics) in order to promote vocabulary acquisition.

3.3. Instruments

Four instruments were used. Quantitative instruments measured their vocabulary knowledge through (1) two pre- and two post- tests. Qualitative instruments measured their interest and motivation as regards the prepared and performed activities through the (2) motivation thermometer, (3) interviews and (4) observations.

3.3.1. Quantitative (pre- and post- tests)

Tests were divided into two pre- and two post- tests that lasted 25 minutes. The first ones were the pre-tests (pre-test 1 for the no-technology lesson (see Annex 1) and pre-test 2 for the technology lesson (see Annex 2)). They were focused on receptive vocabulary knowledge. They were designed so that initial vocabulary knowledge could be considered in the analysis. Both sets of vocabulary were related to animals (A1/A2-level vocabulary according to the European Framework of Languages) and chosen by the author of this study, but based on a vocabulary list made by the English teachers from the school. Set 1 (no-technology) included farm animals, and set 2 (with technology) wild animals. So as to rule out the possible influence of the specific set of words chosen, in one class the author started with the technology lesson (1A) and in the other one with the non-technology lesson (1B).

Both pre-tests had the same pattern. They had three different types of questions about the animal vocabulary and their goal was to check if students knew the words. The first and second questions were written, and students had to relate the name with the picture of the animal. In the first question some letters were missing from the name of the animal, so they had to fill in the gaps. In the second question, they had to connect the name with the correct picture. In the third question of the pre-tests, the teacher orally presented the animal and students had to colour the corresponding animal.

The two post-tests were exactly the same as the pre-tests and were done after the treatment so as to be able to compare the results of learning using and not using technology.

3.3.2. Qualitative (thermometer, interview and observation)

The second, third and fourth instruments were used to collect the qualitative part of the study. The second instrument was a thermometer, where teams of four people had to discuss and give a mark from 1 to 10 (see Annex 3) expressing how much they had liked the activity. Ten was the best mark and 1 was the lowest. After commenting and colouring depending on their perceptions, the author of the paper asked some random students about the experience to know more details about their feelings concerning the activities. Those questions were the third instrument and included: Did you like the activity? Did you enjoy them? What did you not like? What would you improve? In addition, observations were also a part of the process within the project as an instructor has to be aware of whether children are attending, learning, having fun… their observable behaviours should always be taken into account, and those observations were the fourth instrument.

3.4. Procedure

The two-week study was carried out following a scheme that started with the pre-test, then the activities related to the topic and ended after the post-test was done. For example, in 1A, they started with the set of vocabulary to be learnt using technology, which was wild animals. They did the pre-test in 25 minutes (see Annex 2), the activities (see Table 1 for a description of the activities, a more detailed description can be found in Annex 4) and ended with the 25-minute post-test (see Annex 2). After finishing the activities in each session, the thermometers (see Annex 3) to score how much they had liked the activities were given to them so that they rated the activities they had done in that session. After doing the whole set of wild animals, they started with farm animals (see Table 1 for a general description of the activities, a more detailed description can be found in Annex 4), the non-technological lesson, following the same procedure. Meanwhile, 1B did it the other way around (first

farm animals and then wild animals). In the end, three sessions of fifty minutes were imparted for each lesson, so in total 6 sessions in 1A and 6 in 1B. Both lessons were taught using active methodologies like gamification and interaction teacher-student or student-student, involving themselves in their own learning process.

The lesson plans (see Table 1) were prepared considering that every session lasted 50 minutes. This was always the main idea to follow but students and their feelings, behaviours, attitudes, interests, diversity, strengths and weaknesses were always taken into account first when carrying the activities out, so the timing was not strictly followed.

Table 1. Procedure

3.4.1. Lesson 1: Farm animals (no technology)

SESSION 1	SESSION 2	SESSION 3
25': Pre-test 1	17': **Warm-up**: "Juegos yoga"	2': **Warm-up**: Remember
7': **Warm-up:** Song	30': **Main activity**: Bingo	20': **Main activity**: Games (Who am I & Memory)
15': **Close-up**: Task (Worksheet)	35': **Evaluation**: Thermometer	3': **Evaluation**: Thermometer
3': **Evaluation**: Thermometer		25': **Post-test 1**

3.4.2. Lesson 2: Wild animals (with technology)

SESSION 1	SESSION 2	SESSION 3
25': Pre-test **2**	5': **Warm-up**: Pre-reading (questions)	22': **Warm-up**: Activities Wordwall & Liveworksheets
22': **Warm-up:** Genially	27': **Main activity**: Reading - 1A book - 1B book	3': **Evaluation**: Thermometer
3': **Evaluation**: Thermometer	15': Close-up: Post-reading: Plickers	25': **Post-test** 2
	5': **Evaluation**: Thermometer	

3.5. Data Analysis

In order to analyze the results from the pre- and post-tests and the data from the thermometers, numbers (gains, marks and the differences between lessons) were introduced into an Excel worksheet for better and faster calculation.

Regarding the data from the pre- and post-tests, the idea was to see which method (with or without technology) resulted in greater advancement. For this, the difference between post- and pre-tests was calculated for both methodologies. Then, numbers from both lessons were compared to see which one showed a higher improvement. Plus, thanks to Excel, one can see exactly the improvements or deterioration of every kid. In addition, one can pay attention to both classes and their differences and be able to contrast the effect of the order of the lessons and therefore prove whether it is better to start with technological devices.

Concerning their interests, three activities from each methodology were evaluated though the thermometers and that information was recorded. The evaluated activities were the worksheets, bingo + yoga and the memory/who am I for the non-technological lesson and the Genially, book + Plickers and online activities for the technological lesson. These marks were also introduced into the Excel spreadsheet and were analyzed using averages, to observe which activities were more liked by them. Data from the informal one-to-one interviews and the observations were read and used to complement some of the results.

4. RESULTS

4.1. Results by method

Table 2. Test-results by method

	Lesson 1 (Without ICT)			**Lesson 2 (With ICT)**		
	Pre-test1	**Post-test1**	**Difference**	**Pre-test2**	**Post-test2**	**Difference**
1A	3,85	6,23	**2,37**	4,64	6,70	**2,07**
1B	4,52	6,78	**2,27**	4,75	6,71	**1,97**

As can be seen in Table 2, the results from pre- and post-tests showed improvements as both groups achieved higher scores in every post-test (in average), gaining approximately a two-point-score in both

lessons. 1B obtained better results in every test, although the improvement (difference between post- and pre-test) from both lessons (after the treatment) was less than in 1A. In lesson 1 (without technology), 1A enhanced their vocabulary 2,37 points, while 1B enhanced it 2,27 points (a difference of 0,1 points). In the other lesson, (lesson 2, with technology), students from 1A raised their score 2,07 points and 1B 1,97 (a difference of 0,1 points).

Both groups managed to improve their vocabulary acquisition as seen from the difference between post- and pre-tests. Marks from 1A (see Table 2) showed a 2,37 advancement in lesson 1, without technology, and 2,07 in lesson 2, with technology. There was a greater progress in lesson 1. More specifically, 0,3 points more. Regarding 1B, the evolution in lesson 1 was 2,27 and in lesson 2 1,97. Lesson 1 achieved a greater success with 0,3 points more as well. The order of the lessons was different but both groups had 0,3 points more in lesson 1 than in lesson 2, regardless of the order.

Table 3. Question-result by method

		Pre-test			Post-test		
		Question 1	**Question 2**	**Question 3**	**Question 1**	**Question 2**	**Question 3**
Lesson 1 (Without)	**1A**	1,67	2	7,89	4,22	5,18	9,29
	1B	2,84	2,71	8	5,1	6,5	8,75
Lesson 2 (With)	**1A**	1,57	6,44	5,89	5	7,89	7,22
	1B	1,76	5,29	7,18	4,02	7,41	8,71

Figure 1.

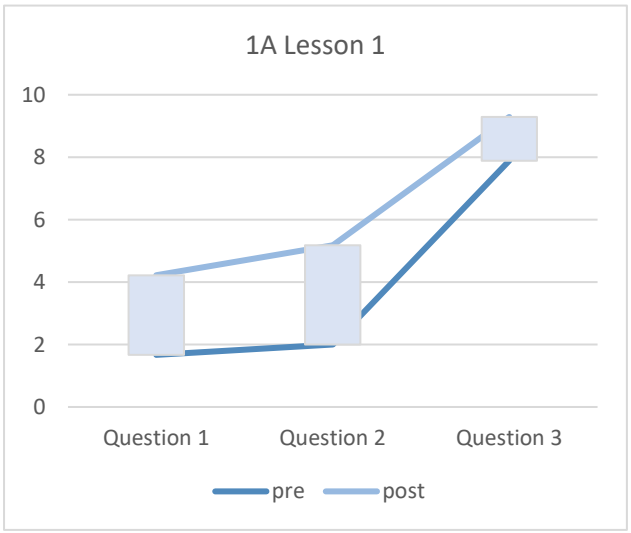


Figure 2.

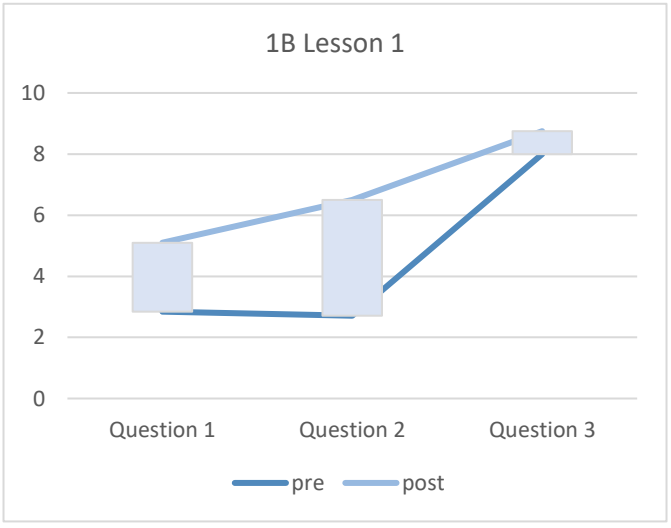


Figure 3.

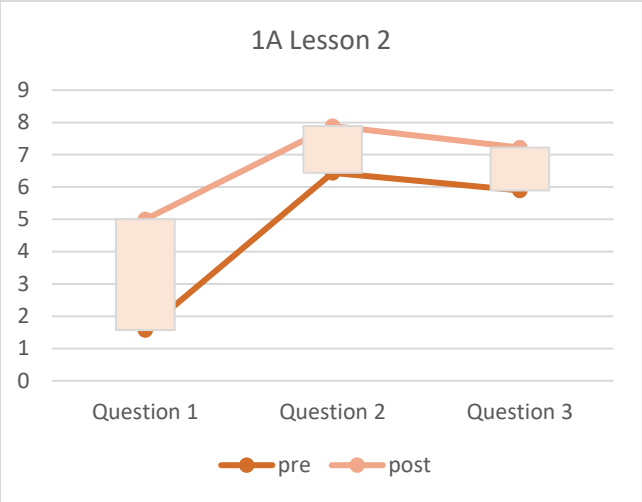
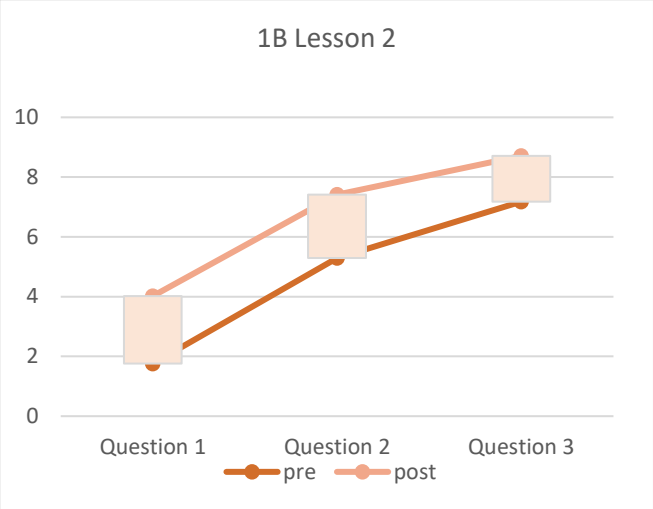


Figure 4.



Taking into consideration gains depending on the three different questions (see Table 3) from the pre- and post- tests, in every case there was an improvement. Regarding lesson 1, 1A and 1B had a major improvement in their second question (see Figures 1 and 2) 3,18 more points in 1A and 3,79 more points in 1B. Fewer advances were seen in the third question from the pre- to the post- test in both groups. 1,4 more points in 1A and 0,75 more in 1B. Question number three had higher scores in both groups on every test. Question 1 in 1A and 1B had the lowest marks after the treatment in comparison with questions 2 and 3.

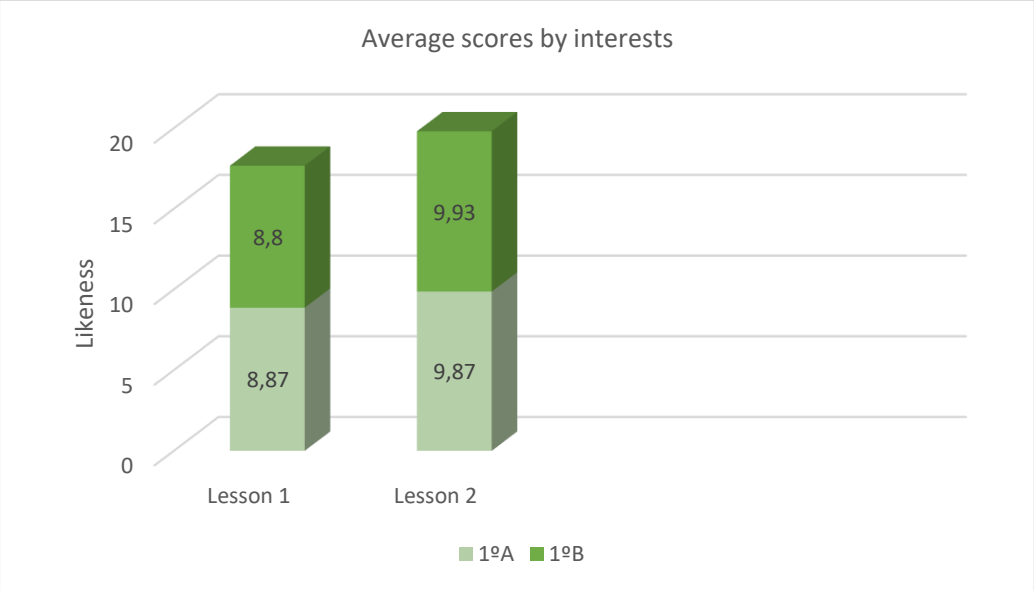
Regarding lesson 2, 1A had a better mark in question 1 after the treatment (see Figure 3). It is 3,43 more in the post- than the pre-test. In this class, question 2 had higher marks in the pre- and post-tests than question number three and number one. 1B had better results in the third question (see Figure 4) in both tests. Just as in lesson 1, the question with the least achievement rate was number one in both tests as well. In this class, advancement after the treatment was similar (a bit less in question 3) in the three questions: 2,26 more in question 1; 2,12 more in question 2 and 1,53 more in question 3.

4.2. Results by perceptions of likeness

Students' perceptions (interest and enjoyment in the activities) were also recorded in the thermometers. On a scale from 1 to 10, being 10 the highest mark, they expressed how they had liked the activities that had been done in class. The marks for the activities from both sessions were high (see Figure 5). Activities from the lesson without technology were 8,87 and 8,8 in 1A and 1B

respectively, and from the lesson with technology were 9,87 and 9,93 in 1A and 1B respectively. The difference between these two marks in 1A was 1 point and in 1B 1,13, being lesson 2 the one with higher scores in likeness.

Figure 5. Average scores by interests

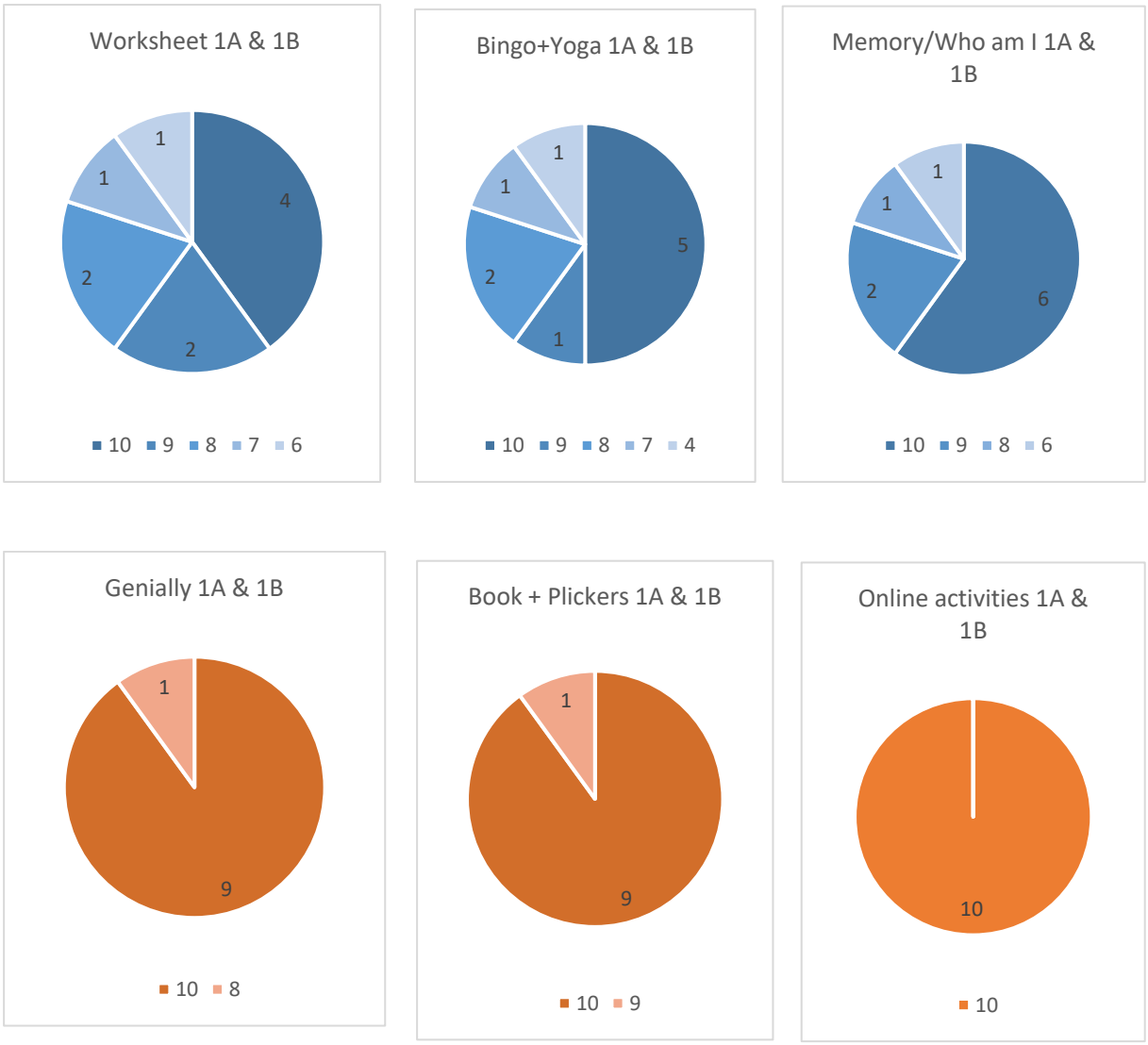


When taking into account every activity performed in class (see Table 4), the most likeable activities were the Book + Plickers with a 9,9 score on average and the online activities with a 10 on average. Regarding the best scored activities from each session, these were the memory + who am I? (9,7 average) from lesson 1 and the online activities from lesson 2. The lowest mark was from Bingo + yoga with 8,6 points on average.

Table 4. Activity scores by interests

	Lesson 1 (Without)			**Lesson 2 (With)**		
	Worksheet	**Bingo + yoga**	**Memory + Who am I**	**Genially**	**Book + Plickers**	**Online activities**
1A	9,4	7,8	9,4	9,6	10	10
1B	8	9,4	9	10	9,8	10

Figure 6. Thermometer marks from every activity



As one can see in Figure 6, marks regarding students' interest in the non-technological (the ones in blue) are more diverse. There were ten teams in total. The span of the marks they gave goes from ten being the highest to six for the worksheet and from ten to four in the bingo + yoga. Still the mark 10 was the most recurrent one among the students. However, the worksheet activity was the only one that did not have a ten as the mark that surpasses the 50%. The technological lessons (the ones in orange) had less diversity in marks. Tens and nines were recurrent being the tens the most recorded in the thermometers.

Aleatory students from different groups were asked if they had liked the activities or not and why they had put those marks. Student 1 explained that they had liked every activity very much, both lessons had been enjoyable, and they had liked to learn using the big screen because they liked the pictures

and going out to the screen to touch and play with it. This student also asked for the next technological session. Student 2 said that they had enjoyed both lessons, but their marks (in lesson 2) were lower because they had already played bingo on another subject. This student also pointed out that she or he would have wanted to play Memory and Who am I for a little longer. Student 3 commented that the group had liked the activities, but this student had already read a similar book at home. Student 4 reported that they had loved all the activities, and that they had laughed and had fun with the book.

In addition, the overall observation from the students in the class was always positive to learn in both lessons. Their attitudes were right, and they showed a predisposition to interactive activities in which they could participate. There were more raised hands in the technological lesson, and they wanted to contribute and volunteer more. They paid attention in both lessons and worked well with their peers when teamwork had to be done. As they were more interested in technological activities, more effort and initiative were observed. Their attitudes towards English were positive, and they were willing to learn the language.

5. DISCUSSION

In the following section, the quantitative and qualitative results previously shown are going to be analyzed considering previous studies and research.

Dronjic's (2019) structure was followed in both lessons. He proposed to first present a set of words (receptive vocabulary) that were done through the song (receptive) in lesson 1 and through the Genially (receptive and productive) in lesson 2. Then, these words were used in several activities to give students the opportunity to turn this receptive vocabulary into productive. The Bingo, Who am I, the Plickers and online activities gave students the option to use their productive vocabulary. He also added that it is useful to use words several times in different activities over a large period of time to increment vocabulary acquisition, to drill and recall the words over and over, which was done in this paper and improved results were seen in both lessons.

As mentioned by Laufer and Shmueli (1997), words that are presented in simple contexts like lists or sentences are memorized better than throughout elaborated or simple texts. Before, while and after presenting the book, simple sentences with the vocabulary were used to drill the words and make them remember and understand the vocabulary and book. Plus, Who am I promoted students to generate meaningful sentences that help them with vocabulary acquisition as Dronjic (2019) proposed. In addition, suggestions from Nam (2010) were taken and visual representations were used in every

activity. The author claims that using pictures is an effective strategy that helps students retain words, which were used in every activity as scaffolding.

In line with previous studies, Nation (1990) explains that learning a word involves receptive and/or productive processes that need to be distinguished in this paper for pedagogical reasons. Tests are divided into three questions. The first one involved writing output, the second one involved recognition of words (reading) and the third one recognition of oral vocabulary (listening). From these three questions, numbers two and three focused on receptive vocabulary and question 1 on productive vocabulary. When analyzing the results, one can see that the marks from question 1 were worse than in the other two questions. This data supports what Swain (1995) explains with the output theory, that productive vocabulary knowledge implies a major demand and effort for learning, making results worse because of the higher cognitive processing necessity and difficulty when producing output. Plus, better results were obtained in the third question since it involved oral input (receptive process), which is highly promoted in young learners due to their lack of writing developed skills. The oral channel is more used with small children.

Regarding extralexical factors that also take part in the learning process (Lauferm, 1994), data collected from students' interests show that the activities best rated were the ones that are related to interaction and dynamism. The memory and Who am I had the best marks from lesson 1 (a 9,7 average) and in lesson 2 the online activities with a 10 average score. On the contrary, the worksheet in lesson 1 had one of the worst marks (8,7 average), meaning that students did not like the activity as much as the others. These results coincide with Dronjic's (2019) study. He explained that students have to learn vocabulary through active, focused instruction. Regarding lessons, it is number 2 (with technology) the lesson that best fitted students' expectations and therefore had better marks in the thermometers.

As Prinzessinnadia (2013) states, ICT are important tools that have had a great role in this study and has facilitated students' languages learning process for lesson 2. According to Domínguez and Fernández (2006), some of the advantages of technology have been seen during the procedure of this research. First, materials in English are highly promoted within the network. Thanks to this, it was simple and fast to select an optimal tool to promote the language in class. Second, collaborative learning was strengthened in some of the activities. When they used Plickers, they positively shared their opinions and ideas to get to the answer. Flexibility and creativity are the third advantages observed during the process. It was manageable to use technology due to the functions presented on

the internet like the ability to create activities from different places and apps that gave the option to create something different and special.

When talking about creativity, this is something that students remarked in their interviews and the marks from the thermometers. They liked the activities made with technological tools more than the ones without because of the variety and innovation that made lessons special. In addition, they also pointed out the interaction with the IWB as something remarkable and interesting for the sessions. This is another advantage expressed by Domínguez and Fernández (2006) that has also been proven in Edem et al. (2020). Instant feedback through correction of the tasks made it easy and fast to keep on with the pace of the session.

Results support studies from Nyairo (2019) and Kurt (2021). As previously mentioned, data from the qualitative instruments show that students enjoyed the activities with the CALL tools more and positive attitudes toward learning were enhanced. Active instruction in which kids participated in their own learning was used and activities that used gamification had better scores among the students. Investigation from Cabrera-Solano (2022) supports data that shows that Genially was a great tool that helped students with their academic performances, concentration and learning was appealing to them. Kristiawan et al. (2022) also coincide with the results from this study as motivation and engagement were enhanced.

Another benefit of ICT mentioned by Domínguez and Fernández (2006) was the ability to use visual and hearing support as an additional resource. As Montero (2022b), Montero (2022a), and Reid (1995) claim, it is very useful for students to get information through more than one channel as there might be multimodal learners that use more than one sense for their learning process. Results support Tseng et al. (2020) experiment with the idea to involve students in a dynamic multimodal set of activities to learn vocabulary. Engagement with the artifacts (in this case the IWB) and collaboration with partners (in this case teams) were observed and recorded in the interviews and observations. Studies from Nam (2010) suggest as effective strategies for teaching vocabulary the use of visual representations because they can help to retain the words.

As the data acquired during the collection process points out, both groups acquired vocabulary in lessons 1 and 2. Data from lesson 1 shows that there has been a major vocabulary improvement in these sessions. Since the difference is very small (0,3 more achievement in the lesson without technologies than the one with) and the same in both groups, the order does not alter the achievement. Contrary to expectations, the learners' perception of what they like most does not

correspond with the acquisition results. This calls into question previous studies on the importance of motivation and interest in language learning. These results also support previous studies (Bueno-Alastuey & Nemeth, 2023) indicating that the method identified as the best and the most interesting and motivating for vocabulary acquisition, is not the method that produces the best results. Further research should continue exploring this issue to see whether these results are further confirmed.

6. CONCLUSION AND PEDAGOGICAL IMPLICATIONS

Thanks to technological developments and their implementation in today's society, teachers can use technology as a tool to teach English. This study has focused on analyzing if the use of ICT aids very young EFL students with vocabulary learning in comparison to learning without using them. Data showed that the lesson without technology obtained a bit more increment in vocabulary acquisition than the session which used ICT. Starting with or without technology does not modify students' acquisition process. On the contrary, students' interest and implications showed that they preferred the sessions that involved technology, in their case, interactive activities with the IWB. These activities were preferred and got higher scores in likeness. Plus, motivation was enhanced and thus, participation as well. Regardless of their implications and interests, motivation does not coincide with the acquisition results.

Data from the research shows that most of the acquired vocabulary was receptive (Nation, 1990) and proves the output theory (Swain, 1995), which explains that producing is way more complex than receiving and the effort demanded to produce words is superior. Results from this study demonstrate that learning through active, focused instruction (in this specific paper through gamification) helps students to acquire vocabulary. The procedure followed a scheme in both lessons proposed by Dronjic (2019) that started with the presentation of a vocabulary set for students to receive the information and then give them the chance to use them in several activities, so that they drilled the words and recorded them in their semantic memory successfully. Visual representations were used in both sessions as scaffolds.

Several benefits were provided by technological tools as a support for the lessons. Advantages claimed by Domínguez and Fernández (2006) were spotted in this experiment as well. Creativity, innovation, instant feedback, interaction, collaboration, flexibility, availability were observed during the procedure. Besides, visual and hearing support engagement could have aided multimodal learners with the achievement process. Regardless of the results that support previous studies that point to increased motivation through the use of technological tools and their varied optimal characteristics,

further studies are required to provide a clear relation between these two factors: vocabulary acquisition results and learners' perceptions of what they like.

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ANNEXES

ANNEX 1: pre- and post- test lesson 1

Name:_____ Class:_____

1. What's the name of the animal?



P_ _	H_ r_ e	R_ b b_ _



C_ _	T_ _ k_ y	D_ n_ _ y

Name:_____ Class:_____

2. Connect the animal with its name.

Dog ★

Chicken ★

Rabbit ★

Goat ★

Rooster ★

Horse ★

Sheep ★





Name:_____ Class:_____

3. Paint the animal that is described

ANNEX 2: pre- and post- test lesson 2

Name:_____ Class:_____

1. What's the name of the animal?

S_a_e | W_l_ | M__ke_

D__ph_n | L_o_ | Ti_e_

Name:_____ Class:_____

2. Connect the animal with its name.

Shark ★

Chicken ★

Giraffe ★

Fox ★

Rooster ★

Kangaroo ★

Crocodile ★

Name:_____ Class:_____

3. Paint the animal that is described.

ANNEX 3: Thermometer

ANNEX 4: detailed activity description

LESSON 1: FARM ANIMALS (No technology)

SESSION 1				
	Activity	**Description**	**Time**	**Materials**
1º	**Pre-test 1** (writing) (listening)	Hand in the pre-tests. Explain to them the three activities so that they are able to perform them without any procedural problems. Then, let them do the activities.	25’	Pre-tests
2º	**Warm-up** (listening) (speaking)	The aim of the activity is to make them think and introduce them to the topic as well as to the English subject. a. Ask if they know the name of any farm animal. Try to make them remember the names they knew. Prepare them for the song they are going to hear and let them know that they have to pay attention to the animals that are mentioned. b. Play the song: Farm Animals Song - Animals Sounds Song - Walk Around the Farm - ELF Learning - YouTube	7’	Screen

		c. Ask for new farm animals they heard in the song. Make questions: What sound does the "x" make? Is there an animal that is not from the farm? Who? For the animals that they didn't get, they have the option to hear the song twice, depending on the students and the time. After naming them all, one can ask which animal is their favourite.		
3º	**Task Close-up** (reading)	Students do the worksheet together at the same time and the teacher guides them so that they can think and no kid is left behind. The teacher asks them to read and to select the animals and the colours mentioned. The aim of the activity is to respect their pace and not hurry when doing the activities and to associate the vocabulary with their meaning (pictures). To make it easier and more interesting for children, they are given a colouring sheet.	15'	Sheets Colours
4º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3'	Sheet

SESSION 2				
	Activity	**Description**	**Time**	**Materials**
1º	**Warm-up** (listening)	The aim of the first activity is to introduce them to the English language in a funny and dynamic way. Most of these selected materials are related to relaxation tasks to breathe and relax and to let them unburden themselves with some movement. Plus, they are all connected to farm animals so this way they remember the words and the animals from the farm that they are going to learn during this and the following sessions. The material is called "Juegos yoga". There are several cards with different activities to do, but only seven (the ones related to farm animals were selected). From these seven, the student who is the line guard or teacher's helper (in charge of the daily tasks) will	17'	Games y yoga

		have to select just two. Those activities will be the ones to be carried out. The selected cards are (this will be translated when doing the activities): - Perro boca abajo (flexion hacia delante) - Gato (gira y estira) - Doble perro (en parejas) - Respiración de la abeja (respira) - Animal amigo (tiempo para ti) - Respiración del conejito (respire) - Ya – alto – espalda con espalda (juego)		
2º	**Main activity: Bingo** (listening) (reading)	The aim of the activity is to review the vocabulary of the farm animals in a dynamic manner. Plus, kids are really into bingo so this activity is thought to make them learn at the same time they enjoy themselves. a. First, there are 12 pick-up words that are the animals that appear on their bingo cards and there is also a box to put them in. Before dropping them, the teacher has to introduce the vocabulary to the students by showing it to them and making them say the names that appear, while the teacher puts them into the box by folding them. b. Each student will receive the bingo cards with the vocabulary words (Bingo link). c. Students will be the ones who pick the words from the box as they like to be the ones to do it. They will pick them one by one and once they get a word, they will read the name out loud to cross the animal mentioned. d. They will do this until someone says: “Bingo!”.	30’	Bingo cards Box Pick-up words

		e. To close up, the kid who said bingo will come to the front and everyone will check if every animal from the sheet has been mentioned.		
3º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3'	Sheet

SESSION 3				
	Activity	**Description**	**Time**	**Materials**
1º	**Warm-up**	Ask students what they did in the previous sessions. What did they do?, what did they learn?.	2'	-
2º	**Activity: games** (reading) (speaking)	The methodology to follow is to learn using games and the aim is for them to learn the names of the animals through a dynamic and active methodology. Since the target participants are six years old, they enjoy these kinds of activities that involve games and at the same time they can learn. For this, two different games are prepared. They will be divided into two teams (which can be random). Each team will have one teacher in it so that they are guided, and talk in English correctly. After playing 10' in a game, they will change and play the other one. Who am I: Who am I farm animals.pdf One student will hold one card with the name of an animal on their forehead without looking at it and the other students will have to give them hints to guess which animal is on the card. To make it easier, they are told to start by saying the colour of the animal, the number of legs it has, ears, nose, … vocabulary that they already know. In the end, if the person does not get it, mimic or making the sound of the animal can be done. Memory: Memory farm animals.pdf	20'	Flashcards

		For this game, they have to put down every card backwards. Then, one by one, students have to turn just two and see if the cards match (picture and name). If they do not, they put it backwards again in the same place as before. If they do, they take the cards, score a point and this person has another opportunity. When they do not match, it is the next person's turn.		
3º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3'	Sheet
4º	**Post-tests 1** (writing) (listening)	Hand in the Post-test 1. Explain to them the three activities so that they are able to perform them without any procedural problems. Then, let them do the activities.	25'	Post-tests

LESSON 2: WILD ANIMALS (With technology)

SESSION 1				
	Activity	**Description**	**Time**	**Materials**
1º	**Pre-test 2** (listening) (writing)	Hand in the Pre-test 2 Explain to them the three activities so that they are able to perform them without any procedural problems. Then, let them do the activities.	25'	Pre-tests
2º	**Warm-up** (listening) (speaking) (reading)	The aim of the activity is to make them think and introduce them to the topic as well as to the English subject. For this, a Genially is used. This is an interactive activity in which the IWB will have a great role. Students will raise their hands to be selected and then, they will go to the IWB and by touching it, make one task from these three activities previously prepared by the author of this paper. It is a nice and touch-integrated activity that kids really enjoy and like to collaborate. The Genially is divided into three activities and sound must be on. They will be introduced to the wild animals and their names for the first time:	22'	Screen

		a. Sub-activity 1: They will be asked if they know any wild animal from the Genially. They will raise their hand to contribute, and they will be called out to click on the animals and see how their names are written. A GIF and the written form of the animal will show up. b. Sub-activity 2: They will be asked to put the animals in their habitats (land and water) while saying their names out loud (and the habitat where the animal lives). They will come to the screen and slide it from the big square where all animals are to their corresponding habitats. c. Sub-activity 3: They will be asked to relate the picture to their name. They have an oral scaffold so they can click on the names and associate the animals with their sound. They will come to the screen and make it by themselves too, sliding it to where the animal is.		
3º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3'	Sheet

SESSION 2				
	Activity	**Description**	**Time**	**Materials**
1º	**Warm-up: Pre-reading** (speaking) (listening)	The aim of the activity is to make them think and introduce them to the topic as well as to the English subject. For this, they are told that they are going to read a story. Then, ask questions to prepare the students for the reading. - Do you like to read books? - *Show the book cover. "We are going to read this book." - What is this? (The moon) - Where is the moon? What is it? - Would you like to touch the moon? - "The title of the book is "A taste of the moon". What can it be? What is the book about?	5'	Pre-tests

		- *Talk about the word: “taste”. What can it mean? (+ mimic) - How would you travel/go to the moon? Jumping? With an airplane? … - Can elephants touch the moon? They are very big. And giraffes? They have long necks. And monkeys? They can climb high trees. - “Let’s read the book!”		
2º	**Main activity: book While-reading** (reading) (speaking)	Since students this age are really into stories, the author of this research paper wanted to create a story that could join two worlds: interests and vocabulary. In addition, one advantage that technologies have is that they can make activities more student-centred. This is a great opportunity to make students the main characters of the story. In order to do this, the app Storyjumper will be used. Each class has a different story as the characters are different. Each of the students will be an animal and when they have to speak, the kids are the ones who read their own text out loud. Plus, when they are mentioned, they have to stand up. Thanks to this they are involved in the story and paying attention. Besides, while reading, questions are asked to make sure they understand. 1A: https://www.storyjumper.com/book/read/151999561 1B: https://www.storyjumper.com/book/read/152235531	27’	Screen
3º	**Post-reading** (reading) (speaking)	The aim of this activity is to review the concepts, the vocabulary and to make sure they have understood the story and emphasize the vocabulary previously learned. In order to do this, Plickers will be used. Each class has a different set of questions as there are pictures for scaffolding (from the book with their faces).	15’	Plickers’ Cards mobile

		They will be working cooperatively as teams (teams of four people). Each team has a plicker card. The plicker card has four sides. Each side has a letter, so if the answer is C, the side with the C has to be up. The idea is to present a question and put its answer (the letter) up. Then, the teacher will record the questions using the app on a mobile phone. The idea is to let the teacher read the question out loud for everyone and let them comment with the group the correct answer. Then, the students put the plicker card on the position that their selected answer is (as previously explained) and the teacher will analyze it with the mobile phone. The app registers the answer and makes a graph showing if they have done it correct or not showing a percentage.		
4º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3'	Sheet

SESSION 3				
	Activity	**Description**	**Time**	**Materials**
1º	**Warm-up:** (writing) (listening)	The aim of this activity is to review the vocabulary once more using technology. For this, some activities have been selected. The ones from Liveworksheets have been selected and the ones from Wordwall have been prepared taking into account the students and the words from the list. Plus, depending on the level and on the timing, one can choose between two different levels in the memory from Wordwall. On the one hand, these exercises make them associate animals with their name in written form. - Liveworksheets: Ejercicio de Drag and drop Wild Animals (liveworksheets.com)	22'	Screen

		- Liveworksheets: Wild Animals - ejercicio de Inglés (liveworksheets.com) - Wordwall Easy Memory: https://wordwall.net/es/resource/54179195 - Wordwall Difficult Memory: https://wordwall.net/es/resource/54179176 Here, the names are oral (for example: This is a lion) and they have to connect it with the picture. - Liveworksheets: https://es.liveworksheets.com/nc245982mq The aim of this last activity is to make them pay attention to the spelling (letter order) since until now, the main focus was always on the connection between the animal and the whole word and its pronunciation. - Wordwall Letters: https://wordwall.net/es/resource/54179043		
2º	**Evaluation** (speaking)	In teams, they will be asked to paint this thermometer and evaluate the degree of likeness of the activity, being 1 the lowest (did not like) and 10 the highest (like). Thermometer	3’	Sheet
3º	**Post-test 2** (writing) (listening)	Hand in the Post-test 2 Explain to them the three activities so that they are able to perform them without any procedural problems. Then, let them do the activities.	25’	Post-tests