

FILOLOGÍA Y DIDÁCTICA DE LA LENGUA

Andrea ARIAS ORDOQUI

TEACHING PRONUNCIATION
TO EFL PRIMARY STUDENTS
THROUGH INTERACTIVE
GAMES

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/ Lehen Hezkuntzako Irakasleen Gradua

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STUDENTS THROUGH INTERACTIVE GAMES**

Andrea ARIAS ORDOQUI

FACULTAD DE CIENCIAS HUMANAS Y SOCIALES
GIZA ETA GIZARTE ZIENTZIEN FAKULTATEA

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Estudiante / Ikaslea
Andrea ARIAS ORDOQUI

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Grado / Gradu
Grado en Maestro en Educación Primaria / Lehen Hezkuntzako Irakasleen
Gradua

Centro / Ikastegia
Facultad de Ciencias Humanas y Sociales / Giza eta Gizarte Zientzien
Fakultatea
Universidad Pública de Navarra / Nafarroako Unibertsitate Publikoa

Director-a / Zuzendaria
Irazu ARDAIZ MAÑERU

Departamento / Saila
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Preámbulo

El Real Decreto 1393/2007, de 29 de octubre, modificado por el Real Decreto 861/2010, establece en el Capítulo III, dedicado a las enseñanzas oficiales de Grado, que “estas enseñanzas concluirán con la elaboración y defensa de un Trabajo Fin de Grado [...] El Trabajo Fin de Grado tendrá entre 6 y 30 créditos, deberá realizarse en la fase final del plan de estudios y estar orientado a la evaluación de competencias asociadas al título”.

El Grado en Maestro en Educación Primaria por la Universidad Pública de Navarra tiene una extensión de 12 ECTS, según la memoria del título verificada por la ANECA. El título está regido por la *Orden ECI/3857/2007, de 27 de diciembre, por la que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de Maestro en Educación Primaria*; con la aplicación, con carácter subsidiario, del reglamento de Trabajos Fin de Grado, aprobado por el Consejo de Gobierno de la Universidad el 12 de marzo de 2013.

Todos los planes de estudios de Maestro en Educación Primaria se estructuran, según la Orden ECI/3857/2007, en tres grandes módulos: uno, *de formación básica*, donde se desarrollan los contenidos socio-psico-pedagógicos; otro, *didáctico y disciplinar*, que recoge los contenidos de las disciplinas y su didáctica; y, por último, *Practicum*, donde se describen las competencias que tendrán que adquirir los estudiantes del Grado en las prácticas escolares. En este último módulo, se enmarca el Trabajo Fin de Grado, que debe reflejar la formación adquirida a lo largo de todas las enseñanzas. Finalmente, dado que la Orden ECI/3857/2007 no concreta la distribución de los 240 ECTS necesarios para la obtención del Grado, las universidades tienen la facultad de determinar un número de créditos, estableciendo, en general, asignaturas de carácter optativo.

Así, en cumplimiento de la Orden ECI/3857/2007, es requisito necesario que en el Trabajo Fin de Grado el estudiante demuestre competencias relativas a los módulos de formación básica, didáctico-disciplinar y practicum, exigidas para todos los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de Maestro en Educación Primaria.

En este trabajo, el módulo *de formación básica*, me ha permitido llevar a cabo un proceso de adquisición de información dado que el alumnado ha realizado un trabajo de reconocimiento y asimilación de diversos fonemas en lengua inglesa. Para ello, se ha prestado atención, por un lado, a diferentes teorías socio-psico-pedagógicas en relación al desarrollo cognitivo y emocional de los niños enunciadas por Vygotsky, Piaget o Bandura, entre otros, y que han resultado útiles en el estudio para conocer los límites de nuestro alumnado y tenerlos siempre presentes, así como la diversidad del aula, ya que cada alumno es diferente y evoluciona de distinta forma, por lo que la capacidad y el desarrollo cognitivo de cada alumno se ha tenido muy presente a la hora de analizar y comprender los resultados obtenidos en el estudio.

El módulo *didáctico y disciplinar*, se puede ver aplicado en las diferentes actividades llevadas a cabo con el alumnado en el estudio. Los contenidos trabajados durante las distintas asignaturas relacionadas con este módulo han permitido que el trabajo se desarrolle de forma activa tanto en el proceso de enseñanza como de aprendizaje, de manera que el alumnado ha sido completamente partícipe de este proyecto, siendo conscientes de los diferentes sonidos que se les han presentado, analizándolos y produciéndolos en diferentes palabras; siendo así los protagonistas de su propio aprendizaje, y el docente el guía del mismo. El fin que se pretende conseguir es que cada estudiante sea una persona autónoma, crítica y consciente de su propio aprendizaje.

Además, la interacción con las nuevas tecnologías (la pizarra digital y diferentes juegos interactivos, en este caso) ha supuesto una motivación para conseguir un que la clase se motivara y se interesara por un aspecto de la lengua que era nuevo para ellos.

Por su parte, el módulo *practicum*, nos ha permitido enmarcar el presente Trabajo de Fin de Grado (T.F.G.) en un aula real de Educación Primaria, donde se ha contado con la ayuda de la responsable de estudios primarios y, sobre todo, la tutora del curso en el que se ha llevado a cabo el proyecto. Todos aquellos conocimientos y experiencias vividas a lo largo del grado de maestro han facilitado una planificación y una adaptación de materiales al aula, cubriendo así, las necesidades del alumnado en todo momento. Existe también una

reflexión acerca de los diferentes juegos escogidos y de la posición de la adquisición de la pronunciación en la segunda lengua extranjera que han llevado a cabo los alumnos y las alumnas. .

Por último, el módulo *optativo* me ha permitido llevar a cabo este estudio ya que se ha trabajado con recursos y estrategias adquiridas en la disciplina de la Lengua Extranjera Inglés, a la que he dedicado varias asignaturas del grado. El aprendizaje de una segunda lengua no se simplifica únicamente a saber gramática y vocabulario, sino que implica saber integrar diferentes destrezas para ser capaz de comunicarnos unos con otros, tarea que es bastante compleja a veces y a la que hay que dedicarle tiempo. En concreto, este estudio tiene como objetivo facilitar la integración de la correcta pronunciación en las producciones orales del alumnado, a través de la práctica diaria. De la combinación de contenidos aprendidos en la asignatura “Fonética y fonología del inglés” y “Nuevas tecnologías aplicadas a la enseñanza del inglés” ha surgido este trabajo de investigación que consiste en fomentar la mejora de la producción fonológica de diversos sonidos (vocálicos) en la segunda lengua a través de la práctica diaria utilizando las nuevas tecnologías como fuente de ejercicios y medio de trabajo al mismo tiempo.

Por otro lado, la Orden ECI/3857/2007 establece que, al finalizar el Grado, los estudiantes deben haber adquirido el nivel C1 en lengua castellana. Por ello, para demostrar esta competencia lingüística, se redactan también en esta lengua los apartados “Introducción” y “Conclusiones”, así como el preceptivo resumen que aparece en el siguiente apartado.

Resumen

Este artículo presenta un estudio experimental realizado con estudiantes de educación primaria españoles centrado en la práctica de la pronunciación a través de juegos interactivos en la clase de inglés. Veinte participantes colaboraron en la investigación, que incluyó quince minutos de práctica diaria con la pizarra digital. La pronunciación del alumnado fue probada con flashcards de imágenes y palabras con los sonidos que querían ser mejorados antes y después del tratamiento. Los resultados obtenidos indican que la práctica de la pronunciación mediante juegos interactivos puede ser un activo motivacional importante pese a la falta de resultados cuantitativos significativos. Teniendo en cuenta estos resultados, puede ser aconsejable introducir estas prácticas en el aula primaria, ya que los niveles de interés y participación aumentan y la pronunciación del alumnado puede mejorarse a largo plazo. Sin embargo, la edad de los estudiantes y la duración del programa deben tenerse en cuenta al diseñarlo.

Palabras clave: educación primaria; pronunciación; juegos interactivos; nuevas tecnologías; ESL

Abstract

This paper presents an experimental study carried out with Spanish primary students focusing on the practice of pronunciation through online games in an ESL classroom. Twenty participants took part in the research, which set out to include fifteen minutes of daily practice using the interactive whiteboard. Students' pronunciation was tested with flashcards of images and words with the sounds that wanted to be improved before and after the treatment. The results obtained indicate that the practice of pronunciation through online games might be an important motivational asset, in spite of the lack of significant quantitative results. In light of these results, it can be advisable to introduce these practices in the primary classroom, since interest and participation levels increased and students' pronunciation may be improved in the long run. However, age of students and duration of the programme should be taken into account when designing it.

Keywords: primary education; pronunciation; online games; new technologies; ESL.

Résumé

Cet article présente une étude expérimentale menée avec des étudiants d'éducation primaire espagnols, centré sur la pratique de la prononciation à travers de jeux interactifs dans les cours d'Anglais. Vingt participants ont collaboré en cette étude, qui comprenait quinze minutes de pratique quotidienne avec le tableau interactif. La prononciation des élèves a été testée avec des flashcards d'images et de mots avec les sons qu'on voulait améliorer avant et après le traitement. Les résultats indiquent que la pratique de la prononciation à travers des jeux interactifs peut être un important actif de motivation malgré l'absence de résultats quantitatifs significatifs. Compte tenu de ces résultats, il peut être souhaitable d'introduire ces pratiques en classe élémentaire, étant donné que les niveaux d'intérêt et participation augmentent et la prononciation des étudiants peut être améliorée à long terme. Cependant, l'âge des élèves et la durée du programme doivent être considérés lors de la conception.

Mots-clés: Éducation primaire; prononciation; jeux interactifs; nouvelles technologies; ESL.

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INTRODUCCIÓN

Tal como establece el currículum oficial del estado de Educación Primaria en el Real Decreto 126/2014 (más información en BOE del 1 de marzo de 2014; <https://www.boe.es>), el aprendizaje de una segunda lengua debe permitir al alumnado ser capaz de desenvolverse en una sociedad cada vez más plurilingüe y multicultural.

Además, es importante tener en cuenta que tanto la enseñanza como el aprendizaje de una segunda lengua no es algo simple y sencillo, pues requiere un gran esfuerzo por parte del profesorado y el alumnado. Los docentes deben de ser capaces de dar a sus estudiantes un entorno lingüístico adecuado a las características de su grupo para que así sus alumnos y alumnas se sientan seguros y motivados para analizar y resolver las dificultades que se pueden presentar en el duro camino de aprender una nueva lengua.

El estudio empírico que se presenta en este trabajo fue llevado a cabo durante un mes y medio en un aula real con niños y niñas de 8 y 9 años, los cuales cursan 3º de Educación Primaria en el colegio Amor de Dios, en Burlada, Navarra. Es por ello que siempre se ha tenido presente el currículum oficial (<https://www.navarra.es>), donde se establecen los objetivos, contenidos y competencias necesarias para los procesos de enseñanza-aprendizaje.

Según el Real Decreto 126/2014, en el currículum oficial se ha potenciado el aprendizaje por competencias ya que suponen una combinación de habilidades y conocimientos que nuestro alumnado debe saber aplicar en diferentes contextos sociales. Además, y basándose en la definición de competencias de la Unión Europea, se han establecido siete competencias, denominadas clave, que se definen como “aquellas que todas las personas precisan para su realización y desarrollo personal, así como para la ciudadanía activa, la inclusión social y el empleo”. Entre las siete competencias clave, encontramos la competencia en comunicación lingüística (CCL), la cual constituye el propósito principal de este proyecto; así como la competencia digital (CD), que también se verá favorecida, además de la competencia para aprender a aprender (CPAA), que se desarrollará al favorecer un aprendizaje autónomo y eficaz.

La pronunciación en la segunda lengua y su mejora es el objetivo del presente estudio, en el que se trabaja esta destreza, una de las más complejas y que, tal como dice Fraser (2002), muchos docentes pasan por alto o no dan a sus alumnos y alumnas los recursos necesarios para adquirirla y mejorarla (citado en Shoostari, Merabi & Mousavinia, 2013, p.455).

Es por ello que he creído conveniente trabajar en este campo, de manera que se empiece a profundizar en la enseñanza y el aprendizaje de esta destreza, analizando y reflexionando sobre los beneficios que puede tener para el alumnado su adquisición y, sobre todo, para su mejora en la segunda lengua, en este caso el inglés. Para ello, ha sido necesaria la búsqueda de información de diferentes autores y estudios relacionados con los dos elementos básicos y fundamentales de este proyecto. Por un lado, la enseñanza de la pronunciación en inglés, y las diferentes estrategias didácticas que existen o que se usan en las aulas de primaria. Por otro lado, la integración de las nuevas tecnologías y los diferentes recursos que ofrece la pizarra digital en el aula para alcanzar la mejora de dicha destreza de una forma más interactiva y lúdica, contribuyendo así al desarrollo de la competencia digital, la cual se especifica en el currículum oficial, así como la competencia de aprender a aprender.

En definitiva, este documento presenta un estudio empírico enfocado a constatar el beneficio del uso de juegos interactivos que ayuden al alumnado de inglés como segunda lengua, a mejorar su pronunciación, lo cual a su vez repercutirá en su nivel de expresión oral y, por lo tanto, en el desarrollo de su competencia comunicativa en inglés.

1. LITERATURE REVIEW

1.1. Teaching phonetics in the ESL classroom

1.1.1 *Pronunciation, phonetics and phonology*

Pronunciation, phonetics and phonology are terms that are often confused due to its similar meanings. Hence, several authors have given their personal definitions in an attempt to explain these different concepts.

Seidlhofer (2001) explains that when talking about pronunciation in language learning, it means the production and perception of meaningful sounds of the language with the purpose of achieve meaning in contexts of language use.

On the other hand, Serena (2003) defines the term phonetics as the study of the sounds that participate in communication: what they are like, how they are produced and how they are perceived.

Furthermore, the term phonology is interpreted by Serena (2003) as the organization of the sounds that participate in communication from a linguistic point of view: how sounds are arranged in several categories called phonemes in order to be recognised and used by speakers.

Additionally, David Crystal (1987) states that the term pronunciation is a very broad notion to be left as it is. First of all, it comprises the study of how humans produce, transmit and hear sounds, which is what he calls phonetics. And it has to be clearly distinguished from the other term under the heading of pronunciation, *phonology*.

In short, while phonetics studies pronunciation in general, phonology focuses on the pronunciation system of a specific language, being its ultimate goal establishing differences and similarities between all such systems.

Peter Roach (2000), for his part, defines phonetics and phonology as the theoretical context about speech sounds and how they are used in language. In each language a certain number of sounds, called phonemes, are identified and special sounds are used to represent them.

Finally, nowadays there is a relatively new term being developed and researched in the field of phonetics and phonology and reading: phonics. In fact, literacy is now being taught through phonics which consists in teaching grapheme–phoneme correspondences. This new methodology is not only used in English as L1 teaching contexts but also in ESL classrooms. As it is suggested by Lázaro (2007), this may help overcome the wide range of difficulties faced by Spanish students when being confronted with the challenging and arduous task of learning how to read in English. Within this context is where this paper is developed, aimed at researching new ways of practising and improving pronunciation from an early age in a primary ESL classroom.

1.1.2 How pronunciation teaching has evolved

Pronunciation instruction has been around for as long as people have been learning languages other than their mother tongues (Derwing, 2013).

The history of pronunciation in English language teaching is an issue of extremes. In the early 20th century, the interest in the topic started in Britain where phoneticians such as Daniel Jones turned their attention to accent with his book *The Pronunciation of English* (1927) serving as a standard for teaching learners of English (Derwing, 2013).

There are several methodologies and approaches to language teaching, yet direct pronunciation teaching has only been a key factor in some teaching approaches, such as audiolingualism and the direct method, which emerged against the grammar-translation method (Levis, 2005; Lázaro, 2011). Meanwhile, other methodologies, as the one that arose in the late 70s, the communicative language teaching, have mostly ignored pronunciation (Levis, 2005).

According to Lázaro (2011), the communicative approach did not ignore pronunciation but it subordinated it to general communicative skills, so it was assumed that students would acquire pronunciation while learning to communicate in the language.

Consequently, to a large extent, pronunciation importance has been widely determined by teacher's intuition rather than research (Levis, 2005), thus it can be said that pronunciation has been highly regarded as an implicit aspect in the

teaching and learning of a language among ESL (English as a Second Language) teachers and learners.

In other words, although pronunciation is one of the most noticeable features of a person's speech, it is not always explicitly taught (Shoostari et al., 2013).

Nevertheless, the attention in pronunciation teaching has been increased as evidenced by the establishment of the TESOL Interest Section for Speech, Pronunciation and Listening, the greater availability and range of materials and special issues of journals devoted to pronunciation among others (Lázaro, 2011; Derwing, 2013).

1.1.3 The role of pronunciation in the classroom: benefits and difficulties

Several research studies have focused on investigating the difficulty of learning English and the importance of the pronunciation skill in English communication, with its benefits on ESL teaching. Following this idea, various authors (Fouz & Mompean, 2012; Couper, 2013; Mompean, 2015; Wahyuni, Fauziati, & Hikmah, 2016) agree on the fact that pronunciation is a complex skill to develop, it requires plenty of practice and time to be completely acquired, and teaching this skill to ESL students of beginner's levels would be beneficial for them.

Along these lines, Derwing (2013) gives some reasons why pronunciation should be taught:

- The first one is the fact that most ESL students have the intention of speaking in their L2, so comprehensible pronunciation is essential, especially for those ESL learners who aspire to communicate in their L2 and have several intelligibility problems.
- The second reason given is related with social and psychological issues. Derwing (2013) cites Munro (2003) explains that the way one speaks a language has a great impact on their social status. As a matter of fact, some immigrants are reported to have experienced some negative reactions to their L2 accents and such is the reason why teaching pronunciation would be beneficial for them. Likewise, pronunciation has a psychological side effect due to personal and group identity. Reportedly, that may be the reason why some ESL students wish to sound as native

speakers.

Despite the importance of pronunciation as noted above, the reality is that in many English language classrooms, this skill is omitted or underrated. Derwing and Munro (2005) explain that this happens due to lack of research on L2 pronunciation, which results in teachers' not knowing how to integrate pronunciation instruction in their lessons. As a result, instructors set aside this skill to several activities that are, in most cases, monotonous for Primary Education students (Derwing & Munro, 2005).

Teaching pronunciation involves a variety of challenges (Shoostari et al., 2013), there are diverse teaching methods and different views on the importance of pronunciation (Mompean, 2015). On the other hand, as Roccamo (2015) says, most of the teachers think that teaching pronunciation would be more beneficial to students with higher levels of competence than to beginner's. However, according to the researcher, it is advisable to start teaching pronunciation in novice levels.

Fraser (2002) exposes several false reasons that EFL teachers argued for not teaching pronunciation (as cited in Shoostari et al., 2013, p.458):

1. Pronunciation is a talent that cannot be taught.
2. Student's do not like to speak out in class.
3. Correcting is intrusive.
4. There is not enough time.
5. We do not know how to teach it.

It can be seen that for several reasons, the value of pronunciation for ESL learners is underestimated in English classrooms' despite the benefits that it has for English students' communicative development (Derwing, 2013 among others).

Jenkins (2004) who cites Celce-Murcia, Brinton and Goodwin (1996), Dalton and Seidlhofer (1994), and Morley (1994) expose different roles that pronunciation plays in communication, such as its impact on speakers' success in expressing

themselves in specific contexts or their sense of identity and group membership and their improvement in comprehension and intelligibility among others.

To conclude, it can be seen that pronunciation is an essential aspect of English teaching and, as Derwing (2013) explains, its importance has been around for as long as people have been learning languages other than their mother tongues but its way of teaching has changed through time.

Today, pronunciation teaching has changed from a traditional system to a more communicative methodology (Shoostari et al., 2013). Thus, the present study addresses this issue by investigating the effectiveness of pronunciation training for beginner ESL primary learners by using online games to improve it.

1.2 The use of games in education

It is widely known that games play an important role in children's lives and, therefore, they could be a key tool in Education. Van Eck (2006) explains that several reviews of the literature available on gaming over the last forty years have found that games promote learning and reduce instructional time across multiple disciplines.

1.2.1. Game Based Learning (GBL)

As Garris, Ahlers & Driskell (2002) explain, the Game Based Learning (GBL) is a tacit model of learning that is implicit in most studies of instructional games. In this approach, the objective is to design an instructional program that incorporates certain features of games. Then, these characteristics unleash a cycle that includes user judgments such as enjoyment or interest, user behaviours such as persistence or time, and system feedback. This cycle results in recurrent and self-motivated game play. Finally, this engagement in game play leads to the accomplishment of training aims and specific learning results (Garris et al., 2002).



Figure 1. Model of GBL by [Garris et al., 2002].

Anderson, Reynolds, Yeh and Huang (2008) and Meyer (2009) explain that during the last decade, GBL has been more and more present in the foreign language learning context, using the ability of games to make language education enjoyable and to provide learning environments that contextualize knowledge and immersive experiences for learners.

Furthermore, Smith and Mann (2002), Gee (2003) and Squire (2006) add that GBL is used to describe the application of games in learning, it provides a methodology which better corresponds to students' requirements and, as a result, it engages students in the learning process. It follows the philosophy of "learning through a grammar of doing and being".

1.2.2 Benefits and difficulties of GBL

Van Eck (2006) states that there are some difficulties when applying the GBL approach and problems can range from choosing a suitable game, which depends on what is wanted to be taught; to aligning the game with the curriculum and the content, which is related with choosing a suitable game.

As Yolageldili & Arikan (2011) show, games have an important role in any foreign language teaching programme because they facilitate the learning of that foreign language, they provide enjoyment and relaxation and they encourage students to use their language in a creative and communicative manner.

Playing language games has some advantages to ESL learners. Pivec (2007)

explains that from students' perspective, using a game for learning can have different meanings: learning and having fun; being able to experiment and seeing what happens, being able to express their feelings, etc. From a teacher's point of view, games are used to help to establish dialogue and break social and cultural boundaries or, as Pivec, Dziabenko & Kearney (2005) add, for personal development and to improve the self-esteem of the player, in this case, learners (as cited in Pivec, 2007, p.390).

In addition, Wang (2010) estates that using communicative language games in English language teaching can motivate student's learning with fun, amusement and enthusiasm; provide students with opportunities to use the language in authentic contexts; create an agreeable and supportive learning environment; and promote interpersonal relations.

Furthermore, Lengeling & Malarcher (1997) have divided benefits of language games in four areas (as cited in Rubio & Conesa, 2013, p.175):

1. Emotional benefits. Games promote a creative and spontaneous use of language, develop the communicative competence and motivate students.
2. Cognitive benefits. Games are used to reinforce the new contents and they are useful to revise and increase their knowledge in a communicative way.
3. Dynamic benefits. Games are student-centered, promote participation and build group cohesion.
4. Adaptability benefits. Games are easily adaptable to a certain age or level.

1.2.3 Digital Games Based Learning (DGBL)

With the growth of Information and Communications Technology (ICT) and the introduction of the digital competence in the curriculum, computer games, or online games, have had a major impact on ESL learning. As Pivec (2007) explains, in the 1980s and 1990s many scientists affirmed that ICT could be used as a cognitive tool for learning. Thus, a new approach emerged, known as the Digital Games Based Learning (DGBL).

According to Van Eck's contribution to the field (2006), computer games are effective because learning is relevant, applied and practiced in a meaningful context, where students are encouraged to combine knowledge from different

areas in order to choose a solution or to make a decision at a certain point.

Gros (2007) adds that computer games can be used to easily learn a particular content and can be useful instruments for learning specific strategies (as cited in Dourda, Bratitsis, Griva & Papadopoulou, 2014, p.244).

Pivec (2007) believes that the intention of DGBL is to address new ways of ICT-based instructional design and, at the same time, to provide learners with the possibility to acquire skill and competences later required in the business world. Likewise, there are specific educational areas where game-based learning concepts and methodologies have a high learning value (Pivec, 2007). For example, they provide students with native language input and contexts where they can use the language in a more real background.

In sum, with the introduction of the digital competence in the curriculum and given that the communicative competence must be achieved, games appear to be an essential part of any English foreign language teaching programme.

1.3 New technologies in the ESL classroom

Over the last few decades, the use of technology, multimedia and internet for language teaching has expanded rapidly (Gonzalez-Vera, 2016). Kozma (2008) and Sieverding & Koch (2009) add that with this evolution of technology, most of our daily life aspects have been improved and as a result, people are required to possess several ICT competences or skills to be able to manage and keep up to date with the significant impact that this evolution has in different areas such as the social area or the educational area (as cited in Aesaert & van Braak, 2017). As computer technology became more accessible to both individuals and schools and society started to understand its potential, diverse ways to use computer technology for enhancing teaching and learning were settled (Liu, Moore, Graham & Lee, 2002).

In consequence, a great investment is being promoted in order to introduce ICTs in schools as young people seem to be technologically capable (Bueno-Alastuey & García-Laborda, 2016).

As Kasper (2002) explains, technology is now viewed as both a necessary

component and a means to achieving literacy, so it must become an integral part of ESL courses. Moreover, the Internet ought to be used as a tool to promote linguistic skills and knowledge construction as its creation of a highly motivating learning environment that encourages ESL students to interact with language in new and varied ways, helping them to develop the range of literacy skills that they need to succeed in this age of information that they live in (Kasper, 2002).

1.3.1 How new technologies have changed the way of teaching

Nowadays, most of our students are not new in digital competences because of their exposure to technology from an early age owing to the use of smartphones, tablets, computers, etc. Therefore, most of the teachers rely on technology as a teaching resource with the aim of adapting learning to the needs of a new generation (Gonzalez-Vera, 2016). Prensky (2001) defines this new generation that have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age as digital natives.

Oblinger & Oblinger (2005) explain that living surrounded by a digital culture has influenced the way these young people learn and thus, this new generation of students prefers receiving information quickly, relying on communication technologies as well as performing multiple tasks (as cited in Gonzalez-Vera, 2016, p.52).

This evolution of new technologies can be beneficial for ESL learners and teachers. As Gonzalez-Vera (2016) explains, for teachers the most important benefit of new technologies is that they can use it to find motivational resources for their classes and for learners it is an opportunity to be aware of their own learning, by participating and monitoring it. Domingo & Garganté (2017) shows that for institutions that have decided to adopt social media, it has been proved that it could become an excellent instrument to promote knowledge sharing.

1.3.2 Interactive Whiteboards (IWBs): Benefits and difficulties

Hence, with the purpose of developing ESL students' digital competence and fostering independent learning, in most of Primary Education classrooms

Interactive Whiteboards (IWB) are being introduced (Hall & Higgins, 2005).

The IWB technology combines a large, touch-sensitive electronic board with a data projector, specialised software and a computer. Thus, images from other technologies can easily be displayed on the IWB and objects can be moved or transformed to produce interactive activities including images, text and animation. These functions can help to draw attention to the content being processed. Therefore, the term “interactive” has two different meanings (Hennessy & London, 2013): interaction between objects or as Gray (2012) explain, elements on the board and interactive contact with the content of the lesson (as cited in Hennessy & London, 2013, p.5). Likewise, Smith, Higgins, Wall & Miller (2005) distinguish “technical interactivity”, that refers to physical interaction with the device, from “pedagogical interactivity”, which means interaction between students and others in the context of classroom IWB use, that is designed to bring about learning.

IWBs features perceived to support learning include immediate feedback, dynamic representation of processes and access to a wide range of digital resources, visibility and multimodality (Hennessy & London, 2013). Moreover, Hall & Higgins (2005) add that IWBs are tools that have favourable views among students, who highlight its versatility because of the range of resources that can be accessed; its multi-media capabilities, especially visual, audio and touchable aspects and its contribution to make lessons more enjoyable and fun.

Even so, Hall & Higgins (2005) show some disadvantages that IWBs can have. Most of them are related to technical problems as recalibration, brightness accommodation, which have an easy solution with the right knowledge and technical support.

Nevertheless, according to Winzenried, Dalgarno & Tinkler (2010), IWBs have three potential benefits: increases students' engagement, more effective visual representation and learning through greater classroom interactivity. Moreover, Dulac (2006) adds that IWBs are easy to use, they improve the way of teaching and learning, they promote creativity and they are perfectly integrated in the daily teaching activity. (as cited in Saéz & Jiménez, 2011, p.6)

To conclude, with the aim of developing the digital competence of ESL students,

the introduction of ICT, specifically IWBs, appear to be an indispensable tool to use in any English teaching lesson.

2. TESTING PRONUNCIATION IMPROVEMENT THROUGH INTERACTIVE GAMES AMONG ESL PRIMARY STUDENTS

2.1 The study

2.1.1 Research questions and hypothesis

This paper is aimed at showing the efficacy of the daily use of Information and Communications Technologies (ICT) with ESL (English as Second Language) students to improve the pronunciation skill in English. Particularly, the study addresses the following research question:

- Does the pronunciation skill in English improve with the daily use of online games (ICT)?
 - a. Using images as prompts.
 - b. Using written words as prompts.

Furthermore, the effectiveness of ICT and games in order to raise the motivation level of students in the English classroom will be assessed by observation, the teachers' opinion and students' behaviour and discussed along the results obtained.

According to a previous study undertaken with American students learning German (Roccamo, 2015), practising pronunciation for ten minutes a day yields significant benefits to higher education students' performance.

Hence, with the present paper the effectiveness of fifteen minutes of daily pronunciation training with interactive online games (ICT) is investigated among ESL primary students.

2.1.2 Methodology

This experimental research sets out to analyse how fifteen minutes of daily practice with online games (ICT) improves the development of the pronunciation skill in English among ESL primary students. The sounds that the study

comprises are: /u:/ (as in “boot”); /ʊ/ (as in “book”); /i:/ (as in “bee”); /ɪ/ (as in “fish”); /a:/ (as in “car”); /ʌ/ (as in “cup”); /æ/ (as in “hat”); and /e/ (as in “bed”).

2.1.2.1 Context and participants

The study was accomplished in a primary charter school in Navarra (Spain), where Plurilingual Education is offered (English and Euskara). As far as English education is concerned, this type of teaching is offered through the PAI Programme (Programa de Aprendizaje en Inglés in Spanish- information about it can be found in the following link: <https://www.educacion.navarra.es>), which sets out to promote the acquisition and learning of both languages, Spanish and English, through an integrated content-based curriculum. The research study was conducted over a period of one month and a half.

The participants are 20 Grade 3 students in Primary Education (8 - 9 years old) who have been learning English since they were three years old, most of them through PAI. These learners receive ten hours of EFL teaching per week. This includes the English subject as well as Science, Arts & Crafts and Physical Education (P.E.).

As Coyle et al. (2010) explain, the CLIL (Content and Language Integrated Learning) methodology is implanted in this school as the principal way of teaching in which the foreign language (English) is used to teach new contents and the language itself simultaneously. It enables the combination of three elements; content, language and learning skills, focusing on a student-centred methodology in which scaffolding helps learners build their own knowledge.

The study has been carried out taking into account that the class is diverse and their competence level in English may well be different between them. Hence, as this competence level may be influential in the final results, it will be a factor taken into consideration in the discussion of the results obtained.

2.1.2.2 Materials and procedures

In order to carry out the study, several instruments were prepared and adapted for the circumstances.

1. Groups:

So as to make the practice easier and to ensure that all learners took part in the learning experience in a balanced way, students were divided into five groups of five or six pupils in each one. These groups were created paying attention to diversity and their competence level. As a result, in each group there were students with different levels of competence, so that they could learn from each other in a collaborative way. Finally, groups were named after different colours (blue, green, yellow, red and orange) for organisational reasons.

2. Pre-test:

For this first part of the study, forty-eight flashcards were created. These cards were divided into two groups: images and words. Half of the forty-eight flashcards represented images of words that had the English sounds previously mentioned; and the other half showed written words for the images that had the English sounds (see Appendix I).

In the pre-test, students were asked, one by one and in a separate room from their classroom, to pronounce the word according to what they saw in the images. Thereupon, they were requested to read the words that were related to the images they had seen. All their answers were recorded. The main objective was to set the starting level of competence that our students had in relation with the sounds chosen for the project and to notice if their answers were different when reading and saying the word from the picture.

3. Webpages:

Different online games in several webpages were selected in order to carry out fifteen minutes of daily practice. Most of the games were selected from the same site (www.education.com) and all of them were thoroughly elected to suit the characteristics of the classroom.

In each English lesson, one group played two interactive games during the last fifteen minutes of the class. The order of the groups was chosen by draw.

The games that were chosen for each lesson were connected. For instance, if the previous day one group had played games that were

related with the sound /e/, the next day the next group would play games that were related with another sound and not with the sound /e/.

The purpose of doing this was to ensure that all the sounds were practised and not only the ones that students liked the most.

Nevertheless, in the last English lessons pupils were allowed to choose which games they wanted to play but always following the instructions that the teacher gave them. For example, if they chose one game with the sound /ʌ/, the following game had to be related to the same sound.

There were different types of games that students played (see Appendix II):

- Rhymes. Most of the games asked children to find out which word rhymes with the one given.
- Match. Some games asked students to classify different words in their respective vowel sound.
- Identify the vowel. Several games presented pupils with various words and they had to choose the ones that included the vowel required by the game after hearing the words.
- Complete the word. This type of games asked students to complete various words with the correct vowel by hearing the vowel sounds.

4. Post-test and data analysis:

In order to evaluate the improvement in learners' pronunciation skill, a post-test was set. As in the pre-test, students were asked, one by one, to produce the word according to what they saw in the images. Thereon, they were requested to read the words that were related to the images that they had seen. Students' answers were assessed and compiled as correct or incorrect, paying attention only to the pronunciation of the vocalic sound involved. All their answers were recorded.

The data collected was contrasted with the one gathered in the pre-test to observe whether the hypothesis was true or false. In addition, a test for repeated measures was carried out so as to see whether there was a significant improvement after the treatment.

2.2. Results and discussion

2.2.1 Results

This present paper seeks to replicate Roccamo's (2015) study, in which the effects of teaching German pronunciation in just ten minutes a day were tested. However, the main differences between both studies lie in the language of study, the nature and age of the students taking part in the study and the type of activities developed. After gathering the post-test results, the number of right and wrong answers were calculated and stored on a table to be analyzed. After a first visual assessment, data suggested that taking into account this paper's research question (*does the pronunciation skill in English improve with the daily use of online games (ICT)?*), students may not have experienced such a significant quantitative progression as it was expected (see table 1).

Table 1. Raw results

STUDENTS	PRE-TEST		POST-TEST	
	IMAGES	WORDS	IMAGES	WORDS
1	13	17	14	19
2	5	15	7	16
3	2	3	0	6
4	8	15	11	21
5	10	19	10	18
6	22	24	17	23
7	23	24	22	24
8	14	21	14	22
9	19	23	17	23
10	7	14	8	14
11	10	13	12	17
12	12	19	10	18
13	22	24	20	24
14	6	11	9	15
15	17	22	19	20
16	15	23	14	22
17	5	21	4	21
18	17	21	15	17
19	5	16	8	15
20	4	20	5	17
AVERAGE	11,8	18,25	11,8	18,6
SD	6,61	5,35	5,69	4,32

In fact, mean results of pre-test and post-test utterances remain nearly invariable in the pre and post-tests using both images and words (see table 2 and table 3 respectively).

Table 2. Images

	Pre-test	Post-test
Mean	11.8	11.8
SD	6,61	5,69

Table 3. Words

	Pre-test	Post-test
Mean	18.25	18.6
SD	5,35	4,32

A t test for repeated measures was carried out to confirm that the differences are not statistically significant and the result is consistent with the lack of effectiveness confirmed by previous figures (see table 2 and 3). The p value obtained in both cases was over 0,05 ($t=0,5$; $p>0,05$).

In spite of some improvement peaks, results have generally remained slightly over or under the pre-test performance in each student-case scenario (see figure 2 and 3).

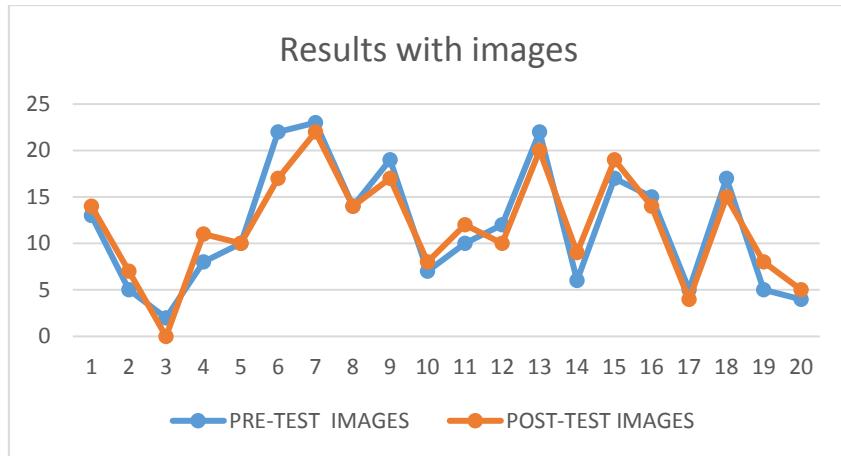


Figure 2. Evolution of results using images between pre and post-test.

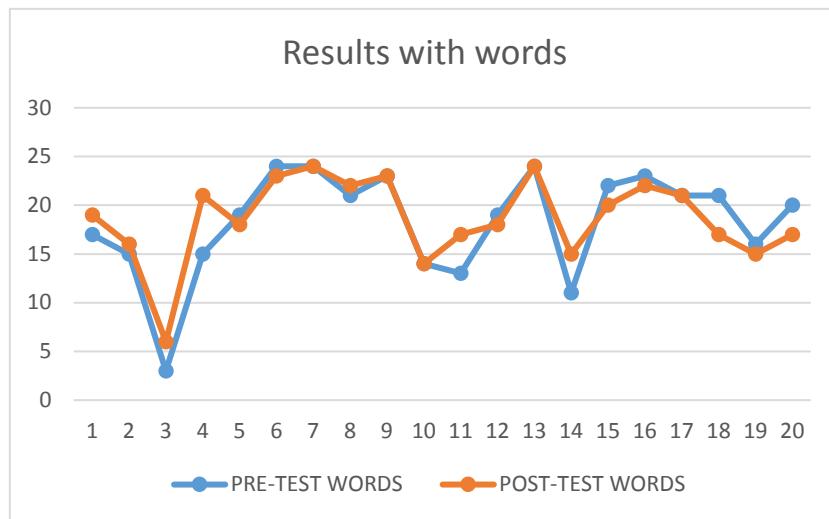


Figure 3. Evolution of results using words between pre and post-test.

In other words, as shown in figure 2 and 3, several students have improved their pronunciation of the pre-test while others have decreased their pre-test marks. However, the overall progression has been scarce and figures remain always close to pre-test means.

For instance, the student that improved the most when tested with images was student 19, with an enhancement of three points (see figure 2). On the other hand, the student that showed less improvement was student 6 with a decrease of five points (see figure 2). As a result, mean results remain virtually constant.

When tested with words, the student that made the greatest progress was student 4 with an enrichment of six points (see figure 3). Nevertheless, the student that made less progress was student 18 with a reduction of four points (see figure 3).

2.2.2 Discussion

In this section the results obtained and presented in the section above are discussed along the lines of the hypothesis entertained.

The results displayed earlier in table 1 show that the students have not achieved a significant improvement in the post-test in both images and words if compared to pre-test results. Thus, despite the fact that several students have improved their pronunciation, the degree of improvement is not high enough so as to make general statements about the use of interactive games in order to improve primary students' pronunciation.

The data showed in tables 2 and 3 reflect the mean result and the standard deviation (SD) in both pre and post-test using images and words. The mean in the results obtained with images (see table 2) is the same in the pre and post-test. Nevertheless, in the results achieved with words (see table 3) the mean has slightly increased. In both images and words, the SD shows a smaller difference if compared with the pre-test (see table 2 and 3), which means that after the treatment students' performance is closer to the average.

The graphs displayed in figures 2 and 3 present the evolution of results obtained when using images (see figure 2) and when using words (see figure 3) by each student. In both figures, there are some improvements yet some decreases. Therefore, in the light of these results, it can be said that the evolution of the marks obtained was not consistent with the hypothesis and expectations prior the research.

However, if the different sounds entertained are analyzed and compared individually, there are some visible variances. In fact, the production of some sounds has suffered a greater improvement than others (see figure 4 and 5).

RESULTS WITH IMAGES

■ PRE-TEST CORRECT ■ POST-TEST CORRECT

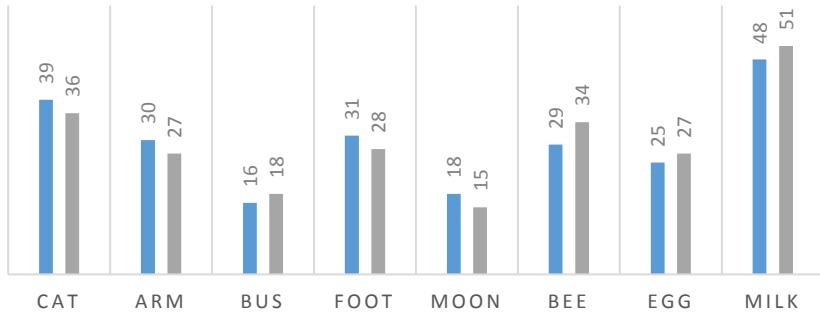


Figure 4. Comparison of the group of sounds between pre and post-test.

RESULTS WITH WORDS

■ PRE-TEST CORRECT ■ POST-TEST CORRECT

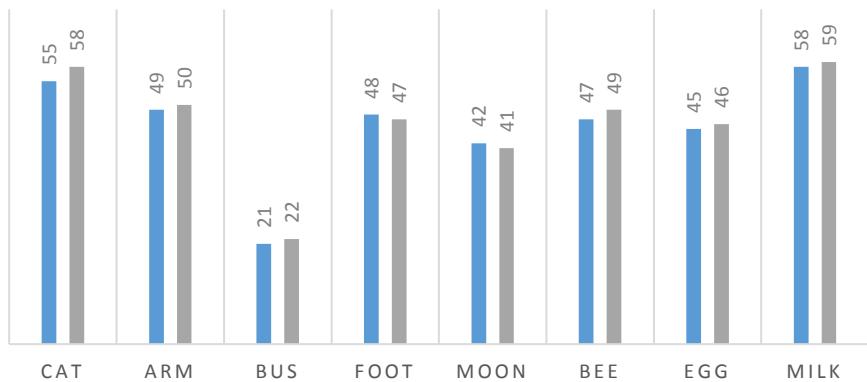


Figure 5. Comparison of the group of sounds between pre and post-test.

The graphs displayed in figures 4 and 5 expose which sounds have improved the most and which ones the least when using images (see figure 4) and words (see figure 5). In both figures, there are some improvements but these are not significant and the number of right answers changes among the different groups of sounds. For example, the sound /ʌ/ was the one students fossilized the worst after being tested both with images and words (see figures 4 and 5). These results might be because of the similarity of the letter *u* to the sound /u/ in Spanish and not to the sound /ʌ/ in English, which is similar to the Spanish sound /ä/, which they relate with letter *a* in English.

When students were tested with images, the sound that was improved the most

was the sound /i:/ with an enhancement of five points on average (see figure 4). These results suggest an improvement in their pronunciation skill as they have assimilated the sound /i:/ to the double vowel ee.

In contrast, the sounds that were improved the least were the vowels /æ/ and /u:/ with a decrease of two points each (see figure 4). These results might be due to the relation that the student have made between the English sound /æ/ with the Spanish sound /ä/, as it appears in the letter a most of times. On the other hand, in the case of the sound /u:/, it might be due to the fact that their level of language proficiency is not so developed to distinguish between a short and a long vowel, so they do it as the Spanish sound /u/ (short).

When tested with words, the sound that was enhanced the most was the /æ/ with an improvement of three points (see figure 5). However, the sounds that were least improved were the sounds /u/ and /u:/ with a reduction of one point each (see figure 5). These results seem to indicate that students have not internalized the relation between both sounds and the double vowel oo, as it appeared in most of the examples used in class. This could be consequence of their low level in English proficiency.

On the other hand, the sound /ɪ/ was the best fixed among students in both images and words (see figures 4 and 5). This may be because in both languages (English and Spanish) the letter i is similarly pronounced, so it is easier for them to recognise this sound in English and Spanish.

There are some aspects that should be born in mind when giving several reasons why some sounds were internalised and produced better than others by students.

Far from being conclusive, these observations should be taken into account when readjusting the practice so as to achieve better outcomes.

Pronunciation was one of the key factors of this project, so the fact that the participants of the research did not have any notion about what pronunciation is and they had never practised it before, could be one of the reasons why the research obtained low results. As a matter of fact, this was the first time for them to learn about this skill and to practice it in an explicit way, not just as part of the communicative methodology of the classroom. In fact, pronunciation was barely

practised in the English classroom or in any other subject of the CLIL programme.

Another of the reasons why the research achieved low results might be that teachers are not well trained to integrate language and subject learning, in this case, pronunciation training, to this level of cognition. Following a CLIL methodology, which is the underpinning of the educational programme of the school, and which is based on an integrated learning where both language and content are integrated, without setting a preference for either, and the 4Cs framework (content, communication, cognition and culture), teachers must be trained to be able to build an interrelationship of integrating content and language learning in order to achieve an effective CLIL practice (Coyle, 2008). This indicates that a lack of specific training may lead to methodological flaws and so yield undesired results.

The present project was accomplished by students of the 3rd grade of Primary Education (8-9 years old) and with a beginner level in ESL. This could be a hindrance in order to succeed thoroughly in the research considering that most of the studies addressed were fulfilled with students of higher levels of proficiency in the language and an older age, as Roccamo's research (2015) with university students. However, despite Levis & LeVelle (2011) suggesting that age cannot be the only influence when achieving the pronunciation skill, the age and the level of students may have been another obstacle so as to achieve higher marks in the current study.

Hence, other causes such as the time of exposition to the target language may be crucial in order to interiorize English pronunciation (Levis & LeVelle, 2011). As a result, the time devoted to the project may need to be longer than with higher levels students in order to facilitate the incorporation of such sounds. Therefore, lack of time would be another reason why the results were not the expected. The current study was accomplished in one month and a half and that may not be long enough to achieve considerable gains in the pronunciation skill. If the time to apply the project had been longer, better marks would have been likely to be reached.

In consequence and in sight of the results achieved, because of students' short period of time of interaction with games, the interactive games may well be

considered by some experts as a distractor for them. Van Eck (2006) states that not all games are good for all learners and for all learning outcomes, so maybe one of the reasons why the improvement was not significant enough, is that the games acted out as some distractors and not as meaningful tools to facilitate learning to students.

Regarding the second hypothesis related to the motivational implications of this practice, the results are more encouraging and successful than the ones previously presented. In fact, the use of the IWB to play these games was a wise decision if the motivational and interest rates are taken into account, as several authors such as Dourda et al. (2014) or Saéz & Jiménez (2011), had explained and predicted. The gaming and learning atmosphere created was a key factor to maintain students engaged to the proposed activities in the project. Hence, this motivation and interest showed by students when playing interactive games were crucial in order to succeed when carrying out other exercises in the classroom. Moreover, this environment promoted participation and collaboration between students, as several authors (Pivec, 2007; Rubio & Conesa, 2013; Wang, 2010) foresaw.

In sum, there are several reasons to consider that this study lacks validity due to the results obtained. However, the theoretical background of this project, its pedagogical implications and the positive motivational consequences in the classroom, may let us conclude that there is enough evidence to believe in a DGBL approach in order to improve pronunciation among ESL primary students. Consequently, after having applied the correct adaptations for the age and the level of the students, along with the motivation of both teachers and students, and the implementation of the programme for a longer period of time, better results are likely to be reached.

CONCLUSIONES

Este trabajo de investigación ha estudiado el uso de juegos interactivos durante quince minutos diarios como una herramienta de mejora de la pronunciación en la segunda lengua extranjera en alumnos de educación primaria. Se trata de una propuesta ambiciosa y muy interesante, que con las mejoras y/o estudios complementarios, se encuentra a total disposición para cualquier maestro o maestra de educación primaria que disponga de tiempo y recursos necesarios para ponerla en práctica.

Los resultados que se han mostrado previamente han revelado que no ha habido una mejora significativa en la adquisición de patrones de pronunciación relacionados con ciertos sonidos vocálicos por parte de los alumnos y alumnas, por lo que se podría argumentar que el estudio no ha sido completamente satisfactorio. Es por ello que se sugiere poner en práctica esta técnica como estrategia para la práctica y mejora de la pronunciación una vez se hayan resuelto los posibles aspectos o factores que han hecho que este estudio no tuviera el éxito esperado.

Como ya se ha mencionado en estudios previos, varios autores están de acuerdo en las múltiples ventajas que la enseñanza explícita de la pronunciación ofrece al alumnado que cursa inglés como segunda lengua (Derwing, 2013; Mompean, 2015; Shoostari et al., 2013; Wahyuni et al., 2016, among others). En la investigación presente, estos aspectos no han podido ser demostrados puesto que no se ha probado una gran mejoría en la pronunciación del alumnado en general. No obstante, si se presta atención a los resultados obtenidos individualmente, se puede observar que algunos alumnos y alumnas sí que han conseguido una mejora de su pronunciación en inglés en ciertos sonidos pese a que éstos no sean altamente significativos.

Esto se puede deber, en primer lugar, a que el alumnado que participó en el estudio no era realmente consciente de que el propósito primordial de las actividades llevadas al aula era el de mejorar su pronunciación en inglés a través de juegos en la pizarra digital interactiva, pese a que si se les explicó qué objetivo se pretendía conseguir antes de comenzar con la aplicación de los diferentes juegos en el aula.

En segundo lugar, y en relación con lo expuesto anteriormente, muchos de los participantes de esta investigación tenían como objetivo el de jugar con la pizarra digital interactiva más que el de mejorar su pronunciación, por lo que se han destacado otros aspectos del estudio más no el que se pretendía potenciar. Esto puede deberse al hecho de que la edad y la maduración o desarrollo cognitivo de los alumnos y alumnas con los que se llevó a cabo el presente estudio no era el adecuado para el objetivo que se quería conseguir, el cual era el de aprender jugando en un ambiente de diversión y motivación, puesto que para la mayoría de los alumnos y alumnas el propósito principal de este proyecto era únicamente el de jugar con la pizarra digital interactiva. De este modo se puede deducir que este estudio puede cosechar mejores puntuaciones si es llevado a cabo con estudiantes de cursos y edades superiores. Sin embargo, Levis & LeVelle (2011) afirman que la edad no es el único factor que influye a la hora de desarrollar la pronunciación en la segunda lengua. Por ello, a la hora de llevar a cabo esta práctica en el aula, se propone, por un lado, la realización de las explicaciones pertinentes por parte del profesor o profesora con el objetivo de clarificar que el principal propósito de los ejercicios que se van a llevar a cabo en el aula van a ser el de la mejora de la pronunciación en la segunda lengua y, por otro lado, que se haga plenamente consciente al alumnado de esta principal finalidad, haciéndoles conscientes del proceso de mejora que van a llevar a cabo con la práctica que van a realizar en el aula.

En este sentido, y siguiendo la idea propuesta por Levis & LeVelle (2011), podemos deducir que quizá otro factor determinante a la hora de llevar a cabo el presente proyecto ha sido la idoneidad o eficacia de los juegos interactivos elegidos. Tal como expone Van Eck (2007), no todos los juegos son los adecuados para todos los alumnos y alumnas, y no todos los juegos responden a las mismas necesidades educativas del aula, es decir, consiguen los mismos resultados. Esto se debe a que existe una gran diversidad de juegos educativos cuya finalidad varía completamente de unos a otros. Gracias a la implementación de las nuevas tecnologías en el aula y de la gran cantidad de recursos que se encuentran disponibles en la red, los juegos que se pueden llevar al aula pueden tener diferentes propósitos: repasar lo aprendido, introducir nuevos contenidos o conceptos en el aula, reforzar aquellos conocimientos que han resultado más

difíciles de comprender y/o analizar por el alumnado, etc. Es por ello que se aconseja que, en futuras prácticas de la técnica expuesta previamente, se tenga especial atención a la hora de elegir los diferentes juegos interactivos que se van a utilizar, atendiendo a los objetivos que se pretende conseguir con los juegos y, sobre todo, si se adecúan al nivel y al desarrollo cognitivo, psicológico y social del alumnado.

Otro aspecto a señalar es el tiempo dedicado a la puesta en práctica de este trabajo. La duración de este proyecto fue de un mes y medio, el cual, tal y como se ha podido observar a la luz de los resultados obtenidos, no es suficiente para adquirir resultados significativos. En los estudios expuestos previamente, como por ejemplo el de Mompean (2015) o en el que principalmente se ha basado este proyecto, el de Roccamo (2015), el tiempo de aplicación de los diferentes estudios comprende alrededor de cuatro meses de duración. De este modo podemos decir que el factor de la duración del trabajo de investigación es un elemento clave a la hora de obtener resultados significativos. También puede tener importancia el hecho de que la duración de quince minutos de la actividad diaria sobre la pronunciación era escasa para este nivel de destreza en el idioma por lo que quizá con la práctica diaria durante más de quince minutos se podrían haber obtenido mejores puntuaciones.

Por otra parte, es conveniente mencionar que, pese a que los resultados no fueron los esperados, sí que se observó un incremento en el nivel de interés y motivación en los alumnos y alumnas, tanto por el hecho de participar en los diversos juegos llevados al aula, así como el uso de la pizarra digital interactiva (PDI) como herramienta de juego a la hora de realizar las diferentes actividades. De esta manera, es posible observar que este tipo de práctica donde se incluye el juego como elemento de aprendizaje y, además, el juego se introduce a través de un elemento novedoso para los niños y las niñas como es la pizarra digital interactiva, supone la creación de un ambiente de trabajo donde los alumnos y alumnas van a adquirir los diversos conocimientos de una forma lúdica, es decir, van a aprender mientras se divierten jugando (Domingo & Garganté, 2017; Dourda et al., 2014; Hall & Higgins, 2005; Pivec, 2007; Rubio & Conesa, 2013; Saéz & Jiménez, 2011; Van Eck, 2007; Wang, 2010; Yolageldili & Arikán, 2011).

Igualmente, cabe destacar la ayuda recibida tanto por el centro en el que se ha realizado el trabajo como la obtenida por parte del profesor con el que se ha compartido las actividades y tareas del presente proyecto. La sensación fue muy positiva durante el desarrollo del estudio dado que en todo momento el ambiente en el aula era de cooperación y motivación entre los alumnos, el cual se creía propicio para obtener resultados aún más significativos si se pudiera. Además, el docente del centro en el que se llevó a cabo el actual trabajo estuvo completamente a mi disposición para cualquier duda o consulta que requiriera de su atención, tanto en relación a los alumnos y alumnas como a los diferentes contenidos que se trabajaron en el aula a través de la aplicación del estudio y la adaptación de los materiales utilizados en el pre y post-test.

La metodología principal en estas clases, tal como se ha mencionado anteriormente, es AICLE (Aprendizaje Integrado de Contenidos y Lenguas Extranjeras), aunque en el currículo se presenta como el programa lingüístico P.A.I. (Programa de Aprendizaje de Inglés) y se basa en el uso de diferentes estrategias tanto lingüísticas como paralingüísticas, textos, recursos digitales, el trabajo a través del descubrimiento, el trabajo a través de la cooperación; en definitiva, una metodología enfocada a la utilización de procesos y tareas que faciliten la construcción del aprendizaje. Por este motivo, se cree que la práctica aquí explicitada, con sus correspondientes mejoras y adaptaciones puede ser una estrategia que ayude a favorecer el desarrollo de las habilidades y competencias requeridas a la hora de estudiar una lengua. Además, esta herramienta puede servir de ayuda a la hora de desarrollar la pronunciación de los sonidos tanto vocálicos en inglés, como los que aquí se proponen, tanto como los consonánticos en la asignatura de inglés o incluso, con los cambios pertinentes, en la de castellano o cualquier otra lengua extranjera.

Futuros estudios podrían replicar la idea de esta investigación de diversas formas. La primera idea que surgió a la hora de llevar a cabo el estudio a un centro fue la de realizarlo con un grupo de control y otro de experimentación, para que así se pudieran observar las diferencias entre la mejora de la pronunciación con la utilización de juegos a través de las nuevas tecnologías, en este caso, la pizarra digital interactiva, y la mejora de la pronunciación con la

utilización de juegos que no dependieran de los recursos tecnológicos disponibles en el aula. Debido al límite de tiempo y la escasa cantidad de alumnos para este tipo de estudio empírico, la idea fue rechazada. Sin embargo, esta idea podría resultar ser una muy buena línea de investigación para posibles estudios futuros. Otros estudios podrían también utilizar este mismo proyecto como base de la instrucción de la pronunciación en inglés en el aula y enfocar los resultados hacia las diferencias entre niveles que puedan surgir, pues en este trabajo sí que se han tenido en cuenta a la hora de exponer los resultados, pero el análisis que se ha realizado de éstos ha sido más superficial.

De acuerdo a los aspectos indicados anteriormente que podrían haber influenciado en los resultados, en próximas investigaciones se podrían incluir en las actividades ya propuestas, prácticas donde los alumnos y alumnas debieran de producir los sonidos de forma escrita u oral, para comprobar cómo afecta el desarrollo de la pronunciación a la hora de la lectoescritura en inglés. También sería óptimo poder contar, por un lado, con más tiempo para llevar a cabo el procedimiento, pues se reflejaría mejor la progresión del alumnado y, por otro lado, con alumnos y alumnas de un nivel de maduración o desarrollo cognitivo superior al aquí presentado dado que beneficiaría a la adquisición de mejores resultados que los obtenidos en este proyecto ya que serían más conscientes de su propio proceso de aprendizaje, lo que influiría también al proceso de interiorización de los diversos sonidos que en el presente proyecto se proponen.

Por último, creo conveniente señalar algunas impresiones personales acerca del proyecto presentado.

En primer lugar, cabe destacar que, pese a que el tiempo dedicado a la aplicación del estudio ha sido limitado, ha resultado ser un proceso largo de trabajo en el que se han preparado y recogido diversos materiales, se han investigado diferentes estudios relacionados con la enseñanza de estrategias para la adquisición de la segunda lengua y, sobre todo, se ha requerido mucho tiempo y esfuerzo. A pesar de ello y de que los resultados obtenidos en la investigación no hayan sido los esperados y deseados, estoy muy satisfecha con el resultado final de este proyecto y con todo el esfuerzo dedicado, tanto por mi parte como por la del profesor y los alumnos y alumnas con los que se ha llevado

a cabo el estudio, ya que sin ellos no habría sido posible realizarlo, y ha merecido totalmente la pena, sobre todo por la experiencia vivida en el aula.

Desde el principio del proyecto sabíamos que se trataba de una propuesta difícil y arriesgada, puesto que, aunque los diferentes estudios investigados avalaban unos resultados significativos y positivos, la realidad en el aula no ha sido así ya que hay que tener en cuenta numerosos factores (tiempo de aplicación, niveles de desarrollo, características específicas del alumnado, imprevistos, etc.) de los que no se puede tener control y que, en este caso, han influido de gran manera a la hora de obtener los resultados.

En segundo lugar, espero y deseo que los contenidos y conocimientos adquiridos a lo largo de los cuatro años de duración de la carrera de Magisterio en Educación Primaria, se vean también reflejados a lo largo de todo el trabajo ya que, sin ellos como base principal, no se hubiera podido llevar a cabo el proyecto en su totalidad.

En definitiva, este proyecto de final de grado supone la aplicación de todo el duro trabajo realizado durante los cuatro años de carrera, en los que se ha podido disfrutar de muchas experiencias enriquecedoras y motivadoras que han contribuido a seguir dando todo aquello que se podía ofrecer, tanto en las asignaturas como en las prácticas escolares, contribuyendo plenamente a nuestra formación como profesores y profesoras. Es el último paso para dar por finalizado el grado de Magisterio en Educación Primaria, donde he tratado de poner en práctica todos los conocimientos teóricos adquiridos, así como todas las habilidades desarrolladas y obtenidas a lo largo del practicum, sin el cual no sabría cómo enfrentarme a un aula real. Estoy completamente convencida de que con este trabajo se cierra una primera etapa de formación y desarrollo en la profesión docente, pero a la vez se da el comienzo a un nuevo periodo mucho más emocionante, el de la profesión de maestra, donde, finalmente el aprendizaje se transformará en enseñanza, a través de la cual se pretenderá convertir a los diferentes niños y niñas en ciudadanos incluyentes, respetuosos, críticos, creativos, con valores, que conviven en sociedad y sobre todo, en personas.

REFERENCES

- Aesaert, K. & van Braak, J. (2017). *Exploring factors related to primary school pupils' ICT self-efficacy: A multilevel approach*. Retrieved from: <http://dx.doi.org/10.1016/j.chb.2014.10.006>
- Anderson, T. A., Reynolds, B. L., Yeh, X. P., & Huang, G. Z. (2008, November). Video games in the English as a foreign language classroom. In *Digital Games and Intelligent Toys Based Education, 2008 Second IEEE International Conference on* (pp. 188-192). IEEE.
- Beauchamp, G. (2004). Teacher use of the interactive whiteboard in primary schools: Towards an effective transition framework. *Technology, pedagogy and education*, 13(3), 327-348.
- Bueno Alastuey, M. C, & García Laborda, J. (2016). Technology use in nursery and primary education in two different settings. In A. Pareja-Lora, C. Calle-Martínez, & P. Rodríguez-Arancón (Eds), *New perspectives on teaching and working with languages in the digital era* (pp. 27-37). Dublin: Research-publishing.net. <http://dx.doi.org/10.14705/rpnet.2016.tislid2014.419>
- Couper, G. (2003). The value of an explicit pronunciation syllabus in ESOL teaching. *Prospect*, 18(3), 53–70. Retrieved from http://www.ameprc.mq.edu.au/docs/prospect_journal/volume_18_no_3/18_3_4_Couper.pdf
- Coyle, D. (2008). CLIL-A pedagogical approach from the European perspective. *Encyclopedia of language and education* (pp. 97-111). Springer US.
- Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL Content and Language Integrated Learning*. Cambridge University Press.
- Crystal, David. (1987). *The Cambridge encyclopedia of language*. Cambridge, England: Cambridge University
- Derwing, T. M. (2013). Pronunciation instruction. *The encyclopedia of applied*

linguistics.

Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: A research-based approach. *Tesol Quarterly*, 39(3), 379-397.

Domingo, M. & Garganté, A. (2017). *Exploring the use of educational technology in primary education: Teachers' perception of mobile technology learning impacts and applications' use in the classroom*. Retrieved from <http://dx.doi.org/10.1016/j.chb.2015.11.023>

Dourda, K., Bratitsis, T., Griva, E., & Papadopoulou, P. (2014). Content and Language Integrated Learning through an Online Game in Primary School: A Case Study. *Electronic Journal of e-Learning*, 12(3), 243-258. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1035666.pdf>

Fouz-González, J., & Mompean, J. A. (2012). Twitter and English pronunciation teaching. In Pixel (Ed.), *ICT for language learning 5th Edition. Conference proceedings* (pp. 341-344). Florence, Italy: Libreria Universitaria. Retrieved from http://conference.pixel-online.net/ICT4LL2012/common/download/Paper_pdf/118-IBT24-FP-Fouz-ICT2012.pdf

Garris, R., Ahlers, R., & Driskell, J. E. (2002, December). Games, motivation and learning. *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice and Research*, 33, 4, 43–56.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 1(1), 20-20.

Gonzalez-Vera, P. (2016). The e-generation: the use of technology for foreign language learning. *New Perspectives On Teaching And Working With Languages In The Digital Era*, 51-61. Retrieved from <http://dx.doi.org/10.14705/rpnet.2016.tislid2014.421>

Hall, I., & Higgins, S. (2005). Primary school students' perceptions of interactive whiteboards. *Journal of Computer assisted learning*, 21(2), 102-117.

Hennessy, S., & London, L. (2013). *Learning from International Experiences with Interactive Whiteboards: The role of professional development in integrating the technology*. Paris: Organization for Economic Cooperation and Development (OECD). Retrieved from: <https://search.proquest.com/docview/1355714701?accountid=28166>

Jenkins, J. (2004). 5. Research in teaching pronunciation and intonation. *Annual Review of Applied Linguistics*, 24, 109-125.

Kasper, L. F. (2002). Technology as a Tool for Literacy in the Age of Information: Implications for the ESL Classroom. *Teaching English In The Two-Year College*, 30(2), 129-44.

Lázaro Ibarrola, A. (2007). Enseñanza de la lectura a través de phinics en el aula de Lengua Extranjera de Educación Primaria.

Lázaro Ibarrola, A. (2011). Imitating English oral texts: A useful tool to learn English Pronunciation?. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*, (16), 49-63.

Lázaro Ibarrola, A. (2011). Imitating English oral texts: A useful tool to learn English Pronunciation?. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*, (16), 49-63.

Levis, J. M. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *Tesol Quarterly*, 39(3), 369-377.

Levis, J., & LeVelle, K. (2011). Social factors in pronunciation acquisition. *Social factors in pronunciation acquisition*, 1.

Liu, M., Moore, Z., Graham, L., & Lee, S. (2002). A look at the research on computer-based technology use in second language learning: A review of the literature from 1990–2000. *Journal of Research on Technology in Education*, 34(3), 250-273.

Meyer, B. (2009). Designing serious games for foreign language education in a global perspective. *Support for Learning*, 1, 715-719.

Mompean, J. (2015). Phonetic Notation in Foreign Language Teaching and Learning: Potential Advantages and Learners' Views. *Research In Language*, 13(3), 292-314. Retrieved from <http://dx.doi.org/10.1515/rela-2015-0026>

Mompean, J. A., & Fouz-González, J. (2016). Twitter-based EFL Pronunciation Instruction. *Language Learning & Technology*, 20(1), 166–190. Retrieved from <http://llt.msu.edu/issues/february2016/mompeanfouzgonzalez.pdf>

Pivec, M. (2007), Editorial: Play and learn: potentials of game-based learning. *British Journal of Educational Technology*, 38: 387–393. doi: 10.1111/j.1467-8535.2007.00722.x

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the Horizon*, 9(5), 1-6. Retrieved from <http://dx.doi.org/10.1108/10748120110424816>

Roach, P. (2000). *English Phonetics and Phonology*. Cambridge: Cambridge University Press.

Roccamo, A. (2015). Teaching Pronunciation in Just Ten Minutes a Day: A Method for Pronunciation Instruction in First-Semester German Language Classrooms. *Die Unterrichtspraxis/Teaching German*, 48(1), 59-83.

Rubio, A. D. J., & Conesa, I. M. G. (2013). El uso de juegos en la enseñanza del inglés en la educación primaria. *Revista de Formación e Innovación Educativa Universitaria. Vol*, 6(3), 169-185.

Sáez López, J.M. & Jiménez Velando, P.A.: "La aplicación de la pizarra digital interactiva: un caso en la escuela rural en primaria", ENSAYOS, Revista de la Facultad de Educación de Albacete, Nº 26, 2011. Retrieved from [http://www.uclm.es/ab/educacion/ensayos - Available \(17-05- 2017\)](http://www.uclm.es/ab/educacion/ensayos - Available (17-05- 2017))

Seidlhofer, B. (2001). "Pronunciation", in Carter, R. and Nunan, D. (eds), *The Cambridge Guide to Teaching English to Speakers of Other Languages*, Cambridge: Cambridge University Press, 56-65.

Serena, F. J. C. (2003). Fonética y didáctica de la pronunciación. *Didáctica de la lengua y la literatura*. Madrid: Prentice Hall, 545-572.

Shoostari, Z. G., Mehrabi, K., & Mousavinia, S. R. (2013). A Call for Teaching Pronunciation in Iranian Schools. *International Journal Of Academic Research In Progressive Education And Development*, 2(1), 454-465. Retrieved from <http://www.hrmars.com/admin/pics/1684.pdf>

Smith, H. J., S. Higgins, K. Wall and J. Miller (2005), "Interactive Whiteboards: Boon or Bandwagon? A Critical Review of the Literature", *Journal of Computer Assisted Learning*, Vol. 21, No. 2, pp. 91-101

Smith, L., & Mann, S. (2002). Playing the game: A model for gameness in interactive game based learning. In *proceedings of the 15th annual NACCQ* (pp. 397-402).

Squire, K. (2006). From content to context: Videogames as designed experience. *Educational researcher*, 35(8), 19-29.

Van Eck, R. (2006). Digital game-based learning: It's not just the digital natives who are restless. *EDUCAUSE review*, 41(2), 16.

Wahyuni, N. T., Fauziati, E., & Hikmah, M. (2016). The effectiveness of using phonics instruction and storybooks in English reading classes to improve student participation. *Jurnal Penelitian Humaniora*, 17(1), 49-64 Retrieved from

<http://journals.ums.ac.id/index.php/humaniora/article/view/2351/1694>

Wang, Y. (2010). Using Games in Teaching and Learning English in Taiwanese Primary Schools. *Journal of Engineering Technology and Education*, vol. 7, No. 1, pp.126-14

Winzenried, A., Dalgarno, B., & Tinkler, J. (2010). The interactive whiteboard: A transitional technology supporting diverse teaching practices. *Australasian Journal of Educational Technology*, 26(4).

Yolageldili, G., & Arikan, A. (2011). Effectiveness of Using Games in Teaching Grammar to Young Learners. *Elementary Education Online*, 10(1), 219-229.

Zin, N. A. M., Jaafar, A., & Yue, W. S. (2009). Digital game-based learning

(DGBL) model and development methodology for teaching history. *WSEAS transactions on computers*, 8(2), 322-333.

APPENDICES

Appendix I: Flashcards of the images and words



Go back to *Materials and procedures*

Appendix II: Interactive games

1. Rhyme games



/ɪ/: available at <https://www.education.com/game/rhyme-hopper/>

/ʌ/: available at <https://www.education.com/game/short-u-rhyme-hopper/> and <https://www.education.com/game/short-u-rhyme-match/>

/e/: available at <https://www.education.com/game/short-e-hopper/>

All vowels: available at <https://www.turtlediary.com/game/word-rhyme.html>

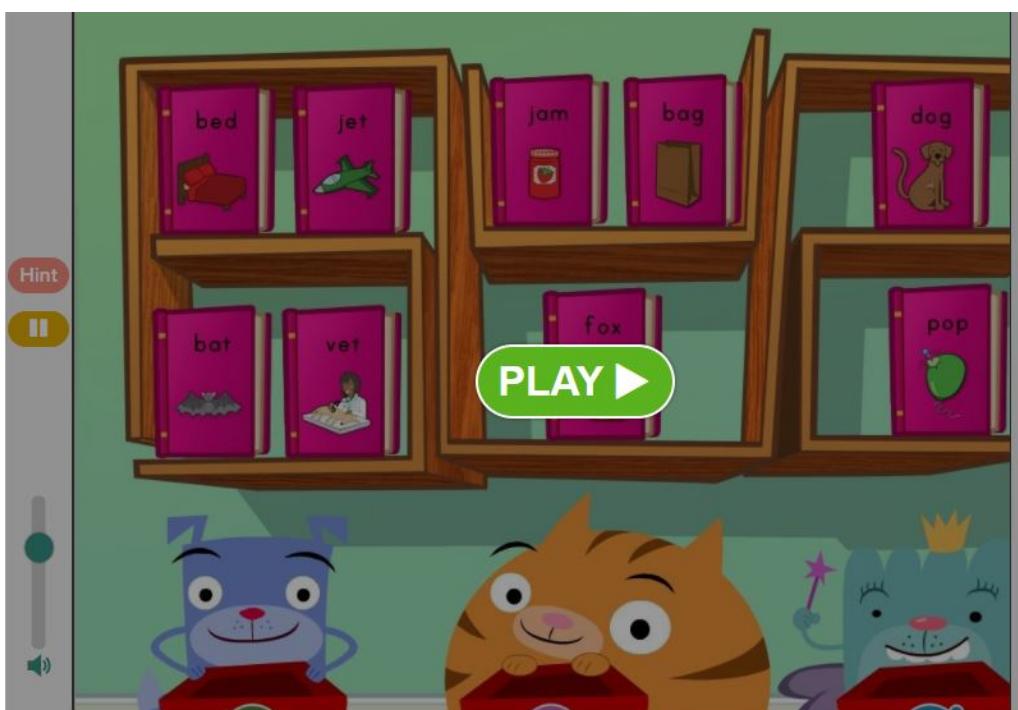
2. Match games



/ʌ/: available at <https://www.education.com/game/short-u-match-up/>

/e/: available at <https://www.education.com/game/short-e-moving-match/>

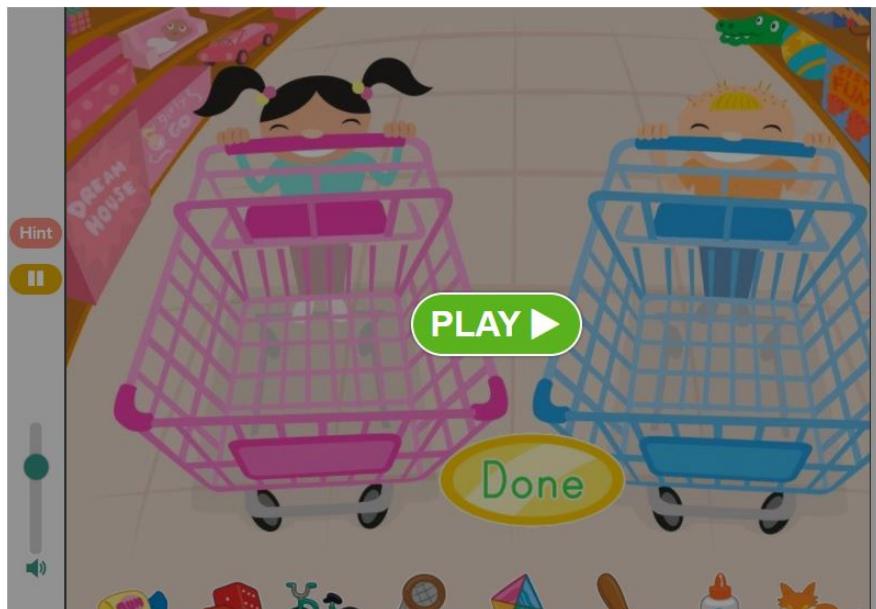
/æ/: available at <https://www.education.com/game/rhyming-words-match-up/>



Available at: <https://www.education.com/game/short-vowel-sort/>

/æ/ or /ɒ/: available at <https://www.education.com/game/o-sound-or-a-sound/>

/ɪ/ or /ʌ/: available at <https://www.education.com/game/short-i-short-u/>



Available at: <https://www.education.com/game/long-short-vowel-sort/>

Long and Short Vowel

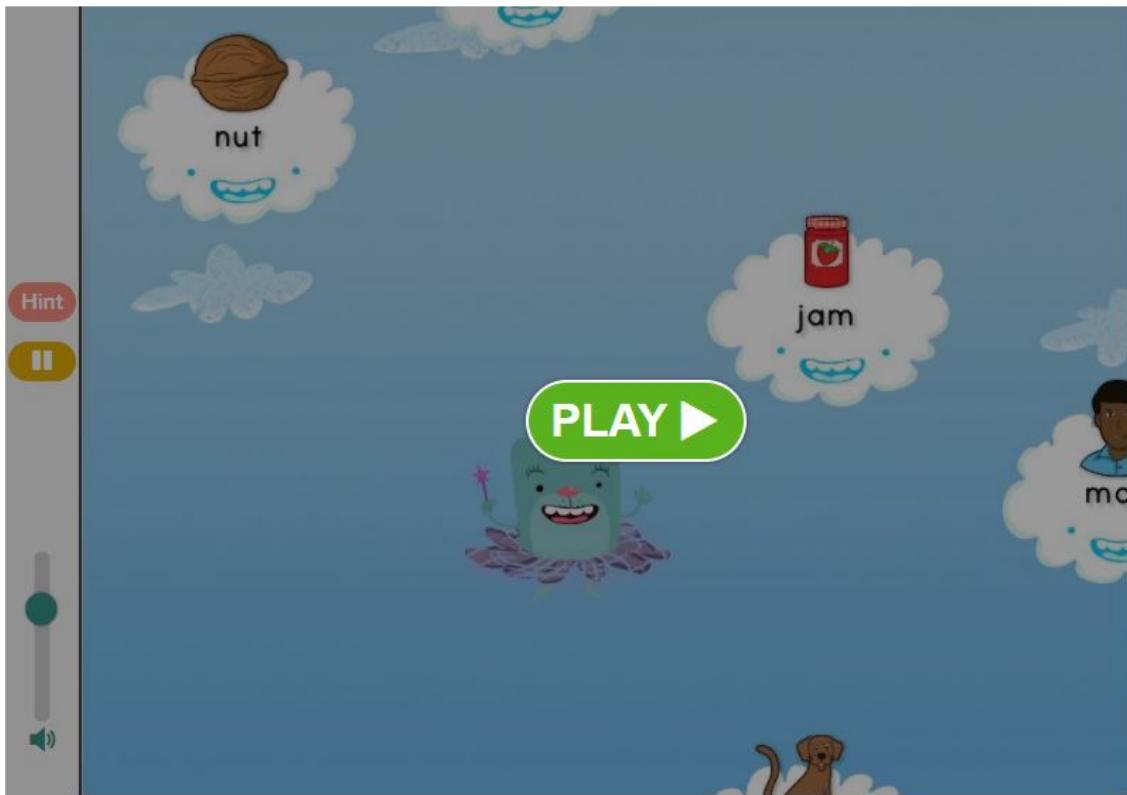
0 00:36

Long A Short A

Available at:

http://www.softschools.com/language_arts/phonics/games/long_short_vowel_game/

1.3 Identify the vowel

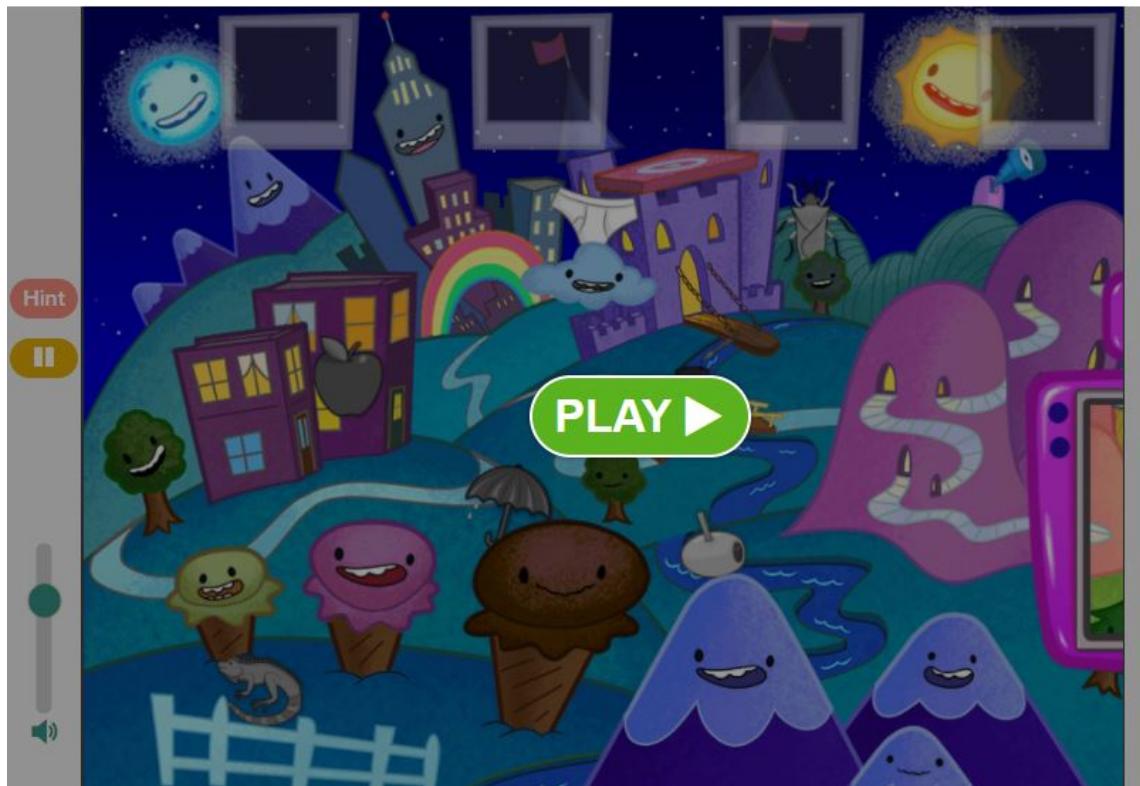


/æ/: Available at <https://www.education.com/game/short-a-cloud-catcher/>

/e/: Available at <https://www.education.com/game/short-e-cloud-catcher/>

/ʌ/: Available at <https://www.education.com/game/short-u-cloud-catcher/>

/ɪ/: Available at <https://www.education.com/game/short-i-cloud-catcher/>



/ɪ/: Available at <https://www.education.com/game/short-i-photoshoot/>

/æ/: Available at <https://www.education.com/game/short-a-photoshoot/>

Between the Lions: Chicken Stack



Available at: <http://pbskids.org/island/preview/gamepreview.html?btl-chickenstacker>

1.4 Complete the word



Available at: <https://www.kizphonics.com/phonics/oo-long-vowel-digraph-phonics-game/>

Go back to Webpages.