Teaching English pronunciation with OERS: the case of Voki

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Resum. *L'aprenentatge de la pronúncia anglesa mitjançant REOs: El cas de Voki.* Al llarg dels anys, l'anglès s'ha situat com una vertadera llengua global a la nostra societat. Això ha donat pas a l'aplicació d'un nombre de mètodes i enfocaments pel que fa a l'àrea d'ensenyament i aprenentatge de l'anglès com a llengua estrangera o segona llengua, on la integració de les tecnologies de la informació i la comunicació (TICs) és primordial. Tenint açò en compte, aquest estudi té dos objectius. D'una banda, investigar fins a quin punt els estudiants universitaris matriculats a l'assignatura de *Pronunciació i comprensió de l'anglès oral* **són capaços de millorar la seua pronunciació mitjançant l'eina online anomenada** *Voki* (http://www.voki.com). D'altra banda, examinar si tenen una actitud positiva cap a la utilització de les TICs per a l'aprenentatge de la pronunciació. Els resultats mostren que les TICs, en aquest cas *Voki*, tenen un gran potencial per a estimular l'aprenentatge de la pronunciació anglesa.

Paraules clau: anglès com a llengua estrangera/segona llengua, TICs, pronunciació anglesa, *Voki*.

Abstract. Teaching English pronunciation with OERS: The case of *Voki*. Along the years English has emerged as a truly global language in our society. This has resulted in a number of methods and approaches used in the field of teaching and learning English as a Foreign or Second Language (EFL/ESL), where the integration of Information and Communication Technologies (ICTs) is paramount. Bearing this in mind, the objective of the present paper is twofold. On the one hand, to investigate to what extent university students enrolled in the *Pronunciation and Understanding of Spoken English* module are able to improve their pronunciation through an online tool called *Voki* (http://www.voki.com). On the other hand, to examine if they have a

positive attitude towards the use of ICTs for the learning of pronunciation. Results showed that ICTs, particularly *Voki*, have the potential to stimulate the learning of English pronunciation.

Key words: English as a Foreign/Second Language (EFL/ESL), ICTs, English pronunciation, *Voki*.

1. Introduction

There is little doubt that it takes a great deal of practice to have an excellent command in a foreign language (FL). It is generally agreed that pronunciation should be taken into account when developing speaking skills. However, its instruction has been neglected for a long time, thereby being perceived as the "Cinderella area of foreign language teaching" (Kelly, 1969, p.87). In this sense, the instruction of foreign language has evolved throughout the years, following new models and approaches. At first, educators followed the grammar-translation method, which involved little or no communication, since the emphasis was on writing and reading skills (Larsen-Freeman, 1986). Contrary to this view, the direct method and the audiolingual method were based on imitation and repetition. As a consequence, pronunciation received attention from the start.

During the following decades, the teaching of pronunciation fell from grace with the arrival of the cognitive approach and the Total Physical Response (Celce-Murcia, Brinton and Goodwin, 1996; Celce-Murcia, Brinton, Goodwin and Griner, 2010). Nevertheless, the communicative approach, which seems to prevail since the 1980s, aims at developing students' communicative competence. To achieve this purpose, learners are provided with meaningful contexts through the use of authentic materials, language games, and role-plays, among other techniques. In this respect, Sobkowiak (2003, p.151) claimed that "texts and images from magazines, leaflets, advertisements, informal notes, graffiti, short message services (SMSs), emails, and the Internet" may raise learners' awareness.

A major trend in the field of foreign languages is the use of ICTs in educational settings, particularly in English pronunciation. Mompean and Fouz-González (2015) gather a number of relevant contributions in computer-assisted pronunciation teaching which involve the use of apps and other devices in the FL classroom. Likewise, many studies revealed that computer applications may be used as a tool to practice vocabulary (Bărbuleţ, 2013), reading (Alkahtani, 1999), writing (Krajka, 2000), and pronunciation (Lee, 2008). Occasionally, computer-assisted language learning (CALL) programs are designed to facilitate the acquisition of English vocabulary and pronunciation through games (Young and Wang, 2014). For instance, Wrembel (2004) reported that software and websites present a wide variety of English accents from which to choose. Even though Received Pronunciation (RP) and General American English are traditionally the most prestigious models followed when learning this target language, the web gives

students the opportunity to choose whether they want to learn British, American, Australian or Canadian accents, among others.

So far, there has been a growing interest in the use of social networks devoted to language teaching. Evidence may be found in studies by Fouz-González and Monpean (2012)and Mompean and Fouz-González (2016). They have carried out some research to determine the effectiveness of Twitter to teach pronunciation, an often neglected area in foreign language instruction. A first study focused on English words that may be tricky for EFL Spanish students, their mispronunciations being explained by means of Twitter-based interaction. Afterwards, a second study did not only focus on words commonly mispronounced by EFL learners, but on how this social network can foster online participation. The results of this research revealed the beneficial effects on students' oral performance as Twitter helped students recall on accurate pronunciation.

ICTs can have beneficial effects in the area of pronunciation, as online resources give students the chance to repeat and practise sounds as many times as necessary (Pennington, 1999). At the same time, they provide immediate feedback, and promote individual and collaborative work (Beatty and Nunan, 2004). In this way, the use of new technologies may not only foster learners' autonomy (Martins, Steil and Todesco, 2004), but also may reduce learners' language speaking anxiety (Young and Wang, 2014). Similarly, other projects on active audio description (Talaván and Lertola, 2016) have proven to be useful online tools as to promote speaking skills in online environments.

Conole and Alevizou (2010) also stressed the role of Open Educational Resources (henceforth OERs) in the generation of new forms of communication and collaboration. By means of these technologies teachers cannot only reduce the time they spend preparing classes, but they can also communicate with their students, who become the main protagonists of the learning process (Mayes and Freitas, 2004).

Higher education institutions in Europe have recently developed new policies to generate OERs for tertiary education. Even though the vast academic community may find OERs easily accessible, not all members of the community accept its use broadly (Bellés-Fortuño and Bellés-Calvera, 2017). In a recent study conducted at a Spanish university with first-year Medicine students, resources such as *Voki* and *LEO network* were used in practical sessions of the *English for Health Sciences* module to enhance students' pronunciation. By means of tools like the text-to-speech option and '*Learn English through dictation*', incorporated in *Voki* and *LEO network* respectively, learners could develop their spoken skills and thus improve their pronunciation performance. Notwithstanding, the results of this study revealed that, although OERs like *Voki* and *LEO network* may be helpful, some students still prefer being taught using traditional instruction models (Bellés-Fortuño and Bellés-Calvera, 2017).

In this line, the current study focuses on the following research questions: (a) Does *Voki* help students to improve their English pronunciation? and (b) Do they have a positive attitude towards the use of ICTs, and more concretely *Voki*, for the learning of pronunciation? Thus, the objective of this paper is twofold. On the one hand, to investigate

to what extent university students enrolled in the *Pronunciation and Understanding of Spoken English* module at university are able to improve their pronunciation through an online tool called *Voki* [1] . On the other hand, to examine if they have a positive attitude towards the use of ICTs for the learning of pronunciation. To achieve those purposes, the first part of the study provides some theoretical framework on the basic notions of pronunciation and OERs. The second part of the study was conducted in the *Pronunciation and Understanding of Spoken English* module held at a Spanish university.

2. Theoretical framework

There is no doubt that pronunciation is a key issue in the mastering of a foreign language. Gilakjani (2012, p.96) points out that "we judge people by the way we speak, and so learners with poor pronunciation may be judged as incompetent, uneducated or lacking in knowledge". This is not to say that a native-like accent is required, but EFL learners should master the language as accurately as possible. Pronunciation problems may result in misunderstandings despite being proficient in grammar and vocabulary (Celce-Murcia et al., 1996), so communication should not be taken for granted.

The development of CALL programs has been paramount in the EFL classroom. Over the last decades, research has focused on pronunciation, a generally neglected aspect in the field of foreign languages, hence leading to Computer-Assisted Pronunciation Training (CAPT) (Llisterri, 2007). In other words, scholars have explored how EFL learners can train their pronunciation through new technological resources. This practice has also taken place in Europe, for example with a project known as Telecollaboration for Intercultural Language Acquisition (TILA) (European Commission, 2013). Based on a communicative approach, it seeks to enhance foreign language acquisition among students from different countries through the use of ICTs, allowing them to enhance spoken and written communication.

By means of updated software, students can be exposed to the FL in a way that can help them perceive their errors. For example, spectrograms, which stand for 3D representations of sounds, can help learners to identify the correct place of articulation (e.g. English /r/ as post-alveolar, rather than alveolar, as in Spanish). As to weak forms, Spanish speakers do not usually distinguish the phoneme /ə/ as it does not occur in their mother tongue. These articulation differences result in weak forms being "replaced by the strong pronunciation of the written vowel" (Coe, 1987, p.91). Therefore, the use of educational tools available on the net cannot only be helpful to expose learners to different accents and voices, but to provide them with immediate feedback of their speech thanks to Automatic Speech Recognition (ASR) technology (Fouz-González, 2015).

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1. *Voki* (Oddcast Inc., 2007) is a platform that allows learners to create their own talking avatars and so make FL lessons more appealing. By uploading an audio file or recording themselves with a microphone students can check their pronunciation in the language they select.

In addition, the combination of CAPT programs and authentic materials can approach learners to real-life situations. In fact, the implementation of realia in the EFL classroom has proved to be a motivational factor (Lee, 1995). In this sense, music could have a great potential when it comes to pronunciation training. As Falioni (1993, p.98) claims, phonological features could be practised through the use of songs since "many people often remember rhyme, rhythm, and/or melody better than ordinary speech". That being said, research should focus on finding alternative ways in which the incorporation of new technologies can support pronunciation instruction. To do so, learners could be introduced to accessible and affordable programs that encourage them to work on their pronunciation on a daily basis.

3. Method

In this section we are going to describe the method used for the analyses and data gathering. ICTs usage habits, issues related to the learning of English pronunciation, and the tools used will be revised as well as a detailed description of the participants, materials, and procedure of the study.

3.1. Participants

The analysis includes 22 first year undergraduate students taking the module *Pronunciation and Understanding of Spoken English*, delivered at a Spanish university within the English Studies degree. The group under study consisted of 17 females and 5 males, with ages ranging from 18 to 27 years old (mean age: 20.68 years). However, not all of them participated in each of the data-collection phases. Thus, the total number of learners who completed all the surveys and activities was limited to 20. With regard to the participants' geographical background, most of them were Spanish whereas two of them were international students from South Korea.

3.2. Materials

Two different course materials were designed to accomplish the objectives of the present study: three activities which assessed participants' pronunciation competence and performance, and two questionnaires providing the subjects' attitudes towards the implementation of new ICTs in the teaching of pronunciation. In fact, questionnaires have proven to be useful research instruments (Dörnyei, 2003), since they are versatile, provide a huge amount of information, and can help the researcher to save time if they are well designed. Regarding the teaching and learning of pronunciation, questionnaires have also proved to be useful in a recent study by Mompean and Lintunen (2015) who

found out student's opinions regarding the use of phonetic symbols in the teaching and learning of pronunciation.

Two Likert scales were incorporated in students' questionnaires. They were asked to answer a first initial survey including 11 items or questions measured in a ranging scale from 1 to 5, that is, from *I totally disagree* to *I totally agree*. The survey included questions about their personal background and their ICT usage, such as *What is your level of English?* and *Have you used ICTs in you EFL classes?* (Appendix 1).

The second survey included 10 questions in a Likert scale ranging from 1 to 5, which stand for *I totally disagree* to *I totally agree*. Within this questionnaire participants were given the option to make suggestions for improvement, thus facilitating qualitative results. Some of the questionnaire items were: *The use of ICTs has allowed me to improve my English pronunciation*, *I will keep using ICTs at home*, or *The implementation of ICTs is aimed at developing the competencies established in the course syllable* (Appendix 2).

The data for this research was also collected from students' work on course activities, which had been designed to promote the use of ICTs and online resources, namely *Voki* and *lyricstraining.com*. These online tools were used to record themselves and so practise the pronunciation of diphthongs, minimal pairs, connected speech, and listening skills. Focusing on the objectives underlying the course, activities were developed to raise students' awareness and make them reflect on their own foreign language learning progress.

Hence, in this study, data were analysed mainly quantitatively, though in combination with qualitative methods. First, students' questionnaires, course work, and *Voki* recordings were analysed in search for progress related to foreign language learning. The qualitative analysis involved observation and reflection on students' suggestions for improvement, whereas in the quantitative analysis subjects' recordings were examined in depth to check whether they improved their pronunciation in the target language or not (e.g. minimal pairs, diphthongs, connected speech).

3.3. Setting

In order to create an interactive environment for the teaching of pronunciation, all the lessons took place in one of the two language laboratories available at university. This lab is equipped with twenty-five computers connected to the university network, which allow students to surf on the Internet and so make use of online dictionaries on a regular basis.

Apart from having Internet access, computers in the language laboratory are fully equipped with audio software and hardware that students were expected to use, including headphones and audio programs like Mymp3 and Audacity. To use the equipment appropriately, students were given some practical lessons at the beginning of the course.

3.4. Procedure

As for the planning and timing of every lesson, this course was taught during the second semester of the academic year, meeting the group twice a week in two-hour sessions. Since this proposal was conceived to be implemented in the Pronunciation module, eight sessions were allocated to carry out this case study in the month of February.

To begin with, the teacher informed students that a researcher would be collaborating during a short period of time where they would deal with some new audio software. Within this first session, they were introduced to the notion of ICTs and their possible implementation in educational settings. Afterwards, the researcher explained the advantages of using *Voki* in the classroom and gave them the corresponding instructions to create a *Voki* account, and all the steps they had to follow to use the tool appropriately. Later on, a questionnaire to measure their command of ICTs was distributed.

The second session was devoted to complete the minimal pairs' activity (Appendix 3). Students had to add their voice to *Voki* characters by uploading an audio file or recording themselves with a microphone saying nine minimal pairs. The activities were designed in line with the course syllabus of the *Pronunciation and Understanding of Spoken English* module, which included the revision of minimal pairs. Then, they were expected to check their pronunciation by selecting the option text-to-speech or paying attention to the phonetic symbols given in an online dictionary. If any of the words was mispronounced, students were supposed to record themselves again. Finally, when they had finished and published their *Vokis*, students were asked to email them to the researcher in order to analyse their progress.

In the third and fourth sessions diphthongs were the central point (Appendix 3). This activity aimed at helping students discriminate diphthong sounds by using realia, that is, authentic materials that enrich the learning experience (Budden, 2011). Clear examples include songs, which provide students with samples of authentic language use. Participants had to listen to the song *Demons* by Imagine Dragons, which is full of diphthongs. As a warm-up activity, learners accessed *lyricstraining.com* website to get in contact with the song. This site encourages students to learn English through music, being used by teachers all over the world. Then, they would identify the diphthongs in the song and would record themselves in British and American accents (Appendix 3).

Connected speech was the core of instruction in the following sessions. Students were given some basic notions on connected speech, such as assimilation, elision, and contractions to do the activity. The teacher provided them with relevant information and explanatory videos that would help them in the performance of the activity. Having drawn an outline of the most relevant concepts, students were asked to identify those features of connected speech in five popular songs excerpts. To make the task easier, they could use *lyricstraining.com* in an attempt to complete the activity and enjoy the process. Once the activity was completed, they had to record themselves using their *Voki* account. The focus was on pronunciation, stress, intonation and features of connected speech.

By means of these activities, students had always the possibility of listening to the songs and recording themselves as many times as necessary. Hence, students did not only have the opportunity to improve their pronunciation, but also to train their listening skills by putting into practice predicting, inferring, monitoring, clarifying, responding and evaluating strategies (Rost, 2002).

At the end of the study, a final survey was administered to the participants to test not only how ICTs helped them to improve their pronunciation, but also their impressions and feelings towards the proposal. Both the qualitative analyses of students' comments and the results of the quantitative data are discussed in the next section.

4. Results and discussion

In this section, the results obtained in the surveys as well as students' performance on the activities are discussed. First of all, the answers gathered in students' initial questionnaire are presented. Afterwards, a detailed account of the results obtained in the activities is displayed. Lastly, students' impressions and opinions are commented in the final questionnaire section

4.1. Students' initial questionnaire

Regarding students' initial questionnaire, there are certain aspects that deserve especial attention. As to question 1 (Q1): *Which is your level of English?* The level of English is quite heterogeneous. Most first year students claimed having a low-intermediate (41%) or upper-intermediate level (32%), in contrast to those students who claimed having a beginner level (18%) or even an advanced level (9%). This is quite surprising considering that the new Organic Law on Education (LOMCE), passed by the Spanish Government, determined that at the end of their baccalaureate studies, students should have a command of the English language equivalent to a B1 level according to the Common European Framework of Language Reference (CEFR) (BOE, 2014). It is worth mentioning that an intermediate level of English is required for the objectives of the pronunciation course to be achieved, since learners should be able to discriminate sounds. Therefore, this item underlines the fact that those students with a lower level of English may need to work harder to pass the subject (Figure 1).

Interestingly, only one out of twenty-two participants answered negatively to Q2: *Do you use ICTs regularly?* A quite expected result if we take into account that millennials have generally grown in a technological era where mobile phones, computers and social networks are used on a daily basis, with rare exceptions. In Q3 the student was asked: *What do you use ICTs for?*; the answers are quite varied. Figure 2 reveals that students use ICTs for a range of purposes, such as Internet access (52%), e-mail (25%), blog (5%),

Facebook (8%), Twitter (5%), and online dictionaries. In other words, ICTs are mainly used for entertainment purposes. From these results, it can be stated that students may lack some knowledge about the application of pedagogical tools like *Voki* in educational settings (Figure 2).
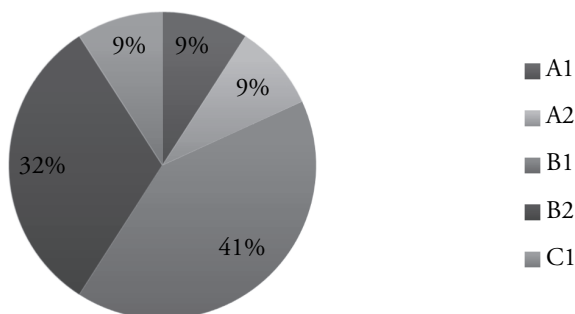

Figure 1. Students' initial questionnaire: a) Level of English.
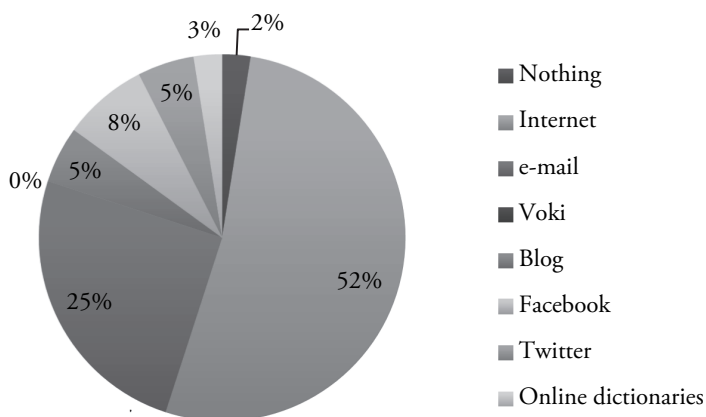

Figure 2. Students' initial questionnaire: b) ICTs usage.

As to Q4: *Have you ever used ICTs in your EFL classes?*, the vast majority of the students (17 out of 22) indicated that they have made use of ICTs in other EFL classes. Regarding Q5, that is, *What's your level of English pronunciation?*, 17 out 22 learners were satisfied with their pronunciation, in comparison with 5 participants who seemed to be unsatisfied. There might be a close relation between this question and Q1 regarding their English proficiency. Likewise, they mostly answered positively to Q6 (20 out of 22): *Do you think*

it is important to speak English accurately? This item highlights the relevance of speaking accurately among the students in the English Studies degree given that they will become future linguists. In Q7 nearly all students totally agree or simply agree on the item *Would you prefer to speak more English in class rather than doing book activities?* They prefer activities where spoken English is practised rather than covering all the units of the textbook. This is not to say that all pronunciation units are redundant. Instead, the coursebook is a resource that could be completed partially at home as part of students' self-assessment. The answers for Q8, that is *Do you usually use ICTs in other subjects?*, are quite similar to those in Q4 regarding the use of ICTs. This may be the consequence of using ICTs in a compulsory first-year degree subject called New Technologies for Language and Humanities (Computing), taught in the first semester of the academic year as part of the study programme. Finally, Q9 results are also relevant since most students seem to be satisfied with instruction as they find the methodology interactive (Figure 3).
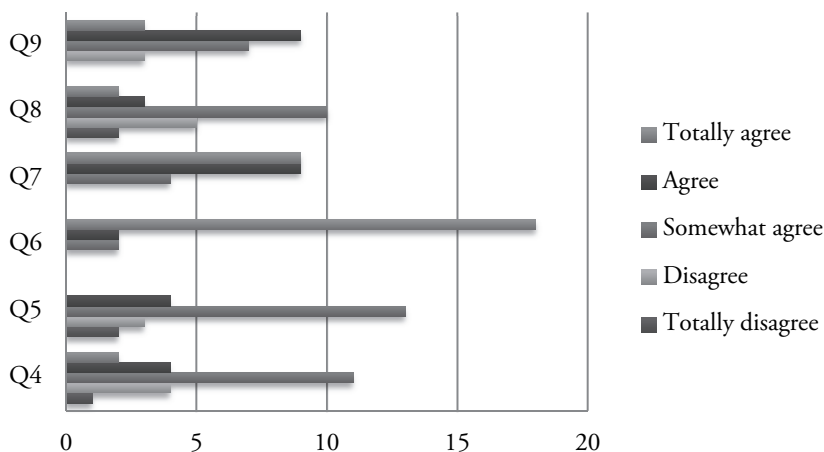

Figure 3. Students' initial questionnaire: c) Questions' results.

4.2. Activities

We will present now the results obtained from the activities prepared after their completion. These activities are, in order: minimal pairs, diphthongs and connected speech.

4.2.1 Minimal pairs

Concerning minimal pairs, some pronunciation problems were identified. Given that these activities were designed for intermediate EFL students, the difficulty of the recorded material resides on the pronunciation of words that may be troublesome for Spanish native speakers.

Figure 4 that follows shows the number of words mispronounced by students in two different recordings. As can be observed, at the very first attempt most of the participants could not discern some phonemes. These pronunciation errors have nothing to do with the set of minimal pairs being pronounced the same way, but with considerable changes in the pronunciation of phonemes.

Most likely pronunciation errors committed by EFL learners occur in words like *pin, toy, top* and *vine* among others. In this sense, the plosives /t/ and /p/ are not followed by an aspiration. The underlying assumption here is that lack of aspiration in Spanish interferes in the pronunciation of English voiceless aspirated plosives word-initially. Unlike Spanish, Korean has aspirated and non-aspirated plosives so that phonetic contrast should be no problem, but curiously, one of the two Korean speakers did not articulate the aspiration in *pin* and *top*.

Strangely, some students recorded the word *gig* pronouncing it as /j/, whereas the word *gut* was pronounced as spelt. A reduced number of subjects tend to pronounce the sound /v/ in *vine* as /b/, and the sound /d/ in *sped* as /ð/, which are common errors among Spanish learners of English as a FL (Coe, 1987).

On the contrary, once participants had recorded themselves for the first time, they made use of the *text-to-speech* option where they introduced all the minimal pairs. As some of them noticed that they made some mistakes on oral production, they recorded again for a second time. As a result, the number of pronunciation errors decreased considerably in the second attempt, which may be the result of the feedback they received from *Voki* in their first recording (Figure 4).
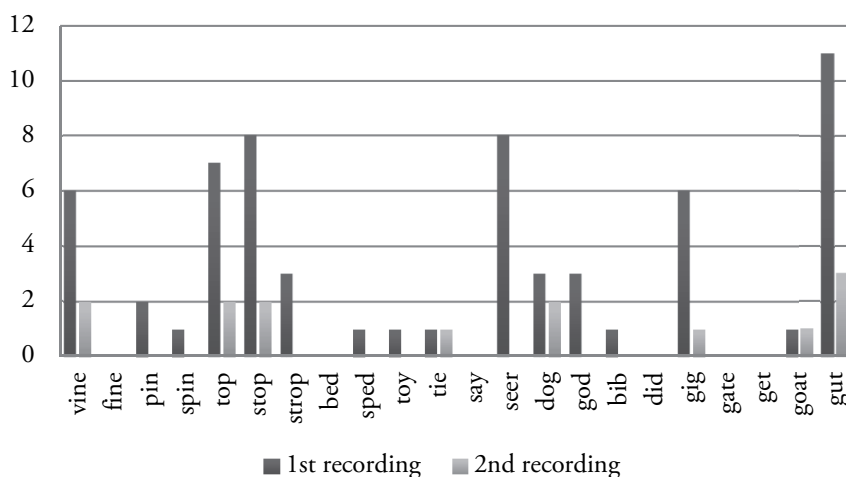

■ 1st recording   ■ 2nd recording

Figure 4. Minimal pair activity: First and second attempts.

4.2.2 Diphthongs

Results from the diphthongs activity are quite interesting and deserve especial attention. In this case, Figure 5 illustrates the number of words with diphthongs that were not identified by students. Approximately 42% of students classified at least 34 words out of a total of 44, whereas over half of participants (58%) presented serious difficulties in identifying diphthongs. In other words, 42% of the subjects failed to identify between 1 and 10 words with diphthongs, 32% of them did not distinguish the diphthongs in, at least, 10 or 15 words, and 26% failed to classify the diphthongs in 15 or 25 words. Comparing the results obtained, it is worth mentioning that the progress of those subjects (26%) who found the activity extremely challenging should be examined in depth.

The analysis of the results indicates that, even though recorded words were pronounced correctly, students had problems in identifying diphthongs, being the most salient ones /əʊ/, and /eə/. Clear examples include words like *woven, gold* and *don't*, which were not classified in the table. This is a common error among Spanish students since this diphthong tends to be pronounced as /ɒ/ (*clock*) or /ɔ:/ (*ball*). Similarly, a great number of students did not identify the diphthong /eə/ in words such as *where*, *nowhere*, and *there*, which sometimes may be pronounced as spelt (O'Connor, 2009) (Figure 5).

Regarding the diphthong /eə/, it should be pointed out that in modern British English the diphthong is considerably monophthongised by many young and middle-aged speakers and its quantity-quality is [ɛ:]. Most modern phoneticians like Cruttenden (2014) and Roach (2009) stress that the quality of /ɛ:/ is similar to that of /ə/, even though they differ in length. However, when occurring in final positions, vowels should not be too long or too short, especially in a non-rhotic accent. It may be the case that Spanish students pronounced a closer monophthong [e] because of L1 transfer, orthographic interference, or both but the key is length. Indeed, Spanish only has five pure vowels, and consequently most Spanish learners may have problems in producing or discriminating sounds like /eə/. As for Korean speakers, they do have long and short vowels in their system so there should be no problem in producing the correct sound with the help of *Voki*.

It is worth mentioning that students did not make the most of *Voki*'s resources when it comes to words containing diphthongs. Given that they were so confident about pronouncing words that were familiar to them properly, they did not even take the time to check carefully if they were right. Otherwise, results would have been different. In other words, if they had employed the text-to-speech option along with online dictionaries to check the pronunciation of diphthongs, their oral performance would have been more accurate.
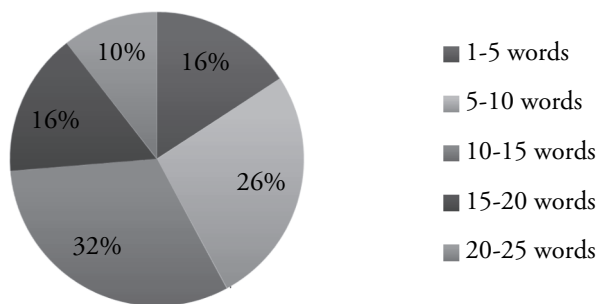
Figure 5. Diphthongs activity.

4.2.3 Connected speech

Results from the connected speech activity suggest that students had some difficulties in identifying the features of connected speech. Contractions were easy to recognise in verb forms; however, difficulties arose in words like *until* and *because*, where over half of the participants (12 out of 20) confused the contracted forms of these words with the notion of elision. Regarding elision, thirteen students did not realise that the sound /t/ in the word *might* was dropped in the song excerpt. As to weak forms, ten subjects did not distinguish the weak form /ə/ in *the* and *to* as it does not occur in Spanish. As for assimilation, almost nine students had problems to recognise the articulation of a new sound. Lastly, the concept of linking 'r' was unclear to some students, getting mistakes with a flapped realisation of /t/ and /d/. This is the case appearing in *lost it all*, for example (Figure 6).
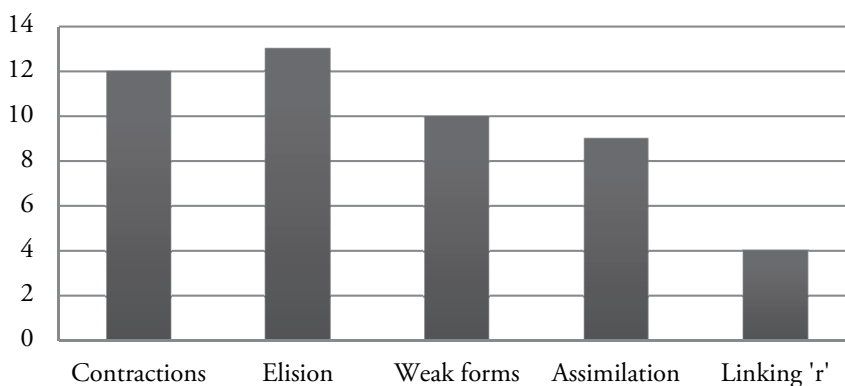

Figure 6. Students' failures on connected speech.

Within this activity, we gave students the option to sing the songs excerpts or read them aloud. Out of the twenty participants, seven students showed high participation and engagement in class during the development of the connected speech activity, where they sang the songs excerpts. The rest of the subjects, despite being participative and responsive to the activity proposed, just read the excerpts.

These findings are relevant in many aspects. Although they put a lot of effort performing the activity, most of their recordings did not sound natural or fluent. This makes us think that more activities involving connected speech should be designed to overcome students' weaknesses. In fact, recent research on connected speech demonstrated the benefits of using songs to promote fluency (Tayari and Mahdavi, 2015).

4.2.4 Students' final questionnaire

As regards the students' final questionnaire, the most notable results can be seen in Figures 7, 8 and 9 below. Looking into individual questions and as to Q1: *I consider a waste of time having to use ICTs. It should be optional*, 14 of 22 students totally or simply disagree that using ICTs is a waste of time. Due to the technological world in which students have grown, they seem to be particularly encouraged to make the most of ICTs and other online resources to develop foreign language skills. Another outstanding result is found in Q2: *I prefer working in groups and using spoken language because that would be better for my learning process*. The majority of the students answered positively to this statement, which denotes that some pair or group activities should be implemented to suit students' particular needs. For instance, while a student speaks, the other listens and writes down pronunciation errors. In this way, students may learn from their classmates.
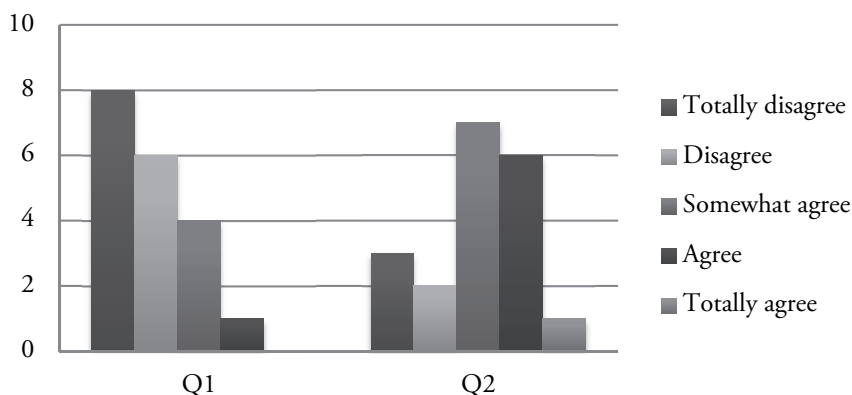

Figure 7. Student's final questionnaire (a): Total results.

The answers for Q3: *The activities are motivating and attractive* are rather positive since students find the activities appealing and amusing. Regarding Q4, a large number of students believe that *I can monitor my own progress*, thereby showing how ICT tools like *Voki* may promote learners' autonomy. In fact, *lyricstraining.com* and *Voki* are useful tools in EFL teaching. On the one hand, lyricstraining.com allows learners to practise listening skills, whereas *Voki*, on the other hand, allows them to keep a record of their performances at the same time they receive immediate feedback. As for Q5, most of the students somewhat agree with the statement *The implementation of ICTs is aimed at developing the competencies established in the course syllable.*
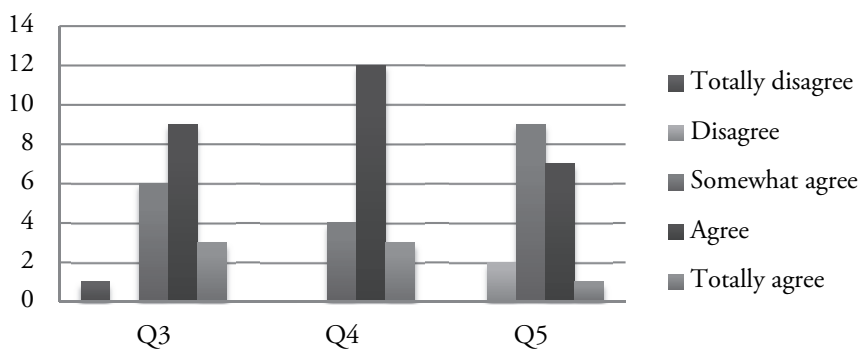

Figure 8. Student's final questionnaire (b): Total results.

Nevertheless, students' agreement on Q6: *The use of ICTs has allowed me to improve my English pronunciation* shows that the objectives described in the course syllabus are achieved. Thus, there might be a close relation between Q6 and Q7, where most of the students reported that *ICTs contribute to the development of independent foreign language learning*. The results in Q8: *ICTs should be implemented in the following courses of the degree* and Q9: *I will keep using ICTs at home* highlight students' likeness towards the use of ICTs and their effectiveness in foreign language learning. Finally, in Q10: *I'm satisfied with this teaching proposal* participants mostly answered positively towards it. These results along with those obtained in a research carried out by Kibishi, Hirabayashi and Nakagawa (2014) prove that online resources are advisable to engage students in the foreign language classroom as well as to improve their pronunciation.
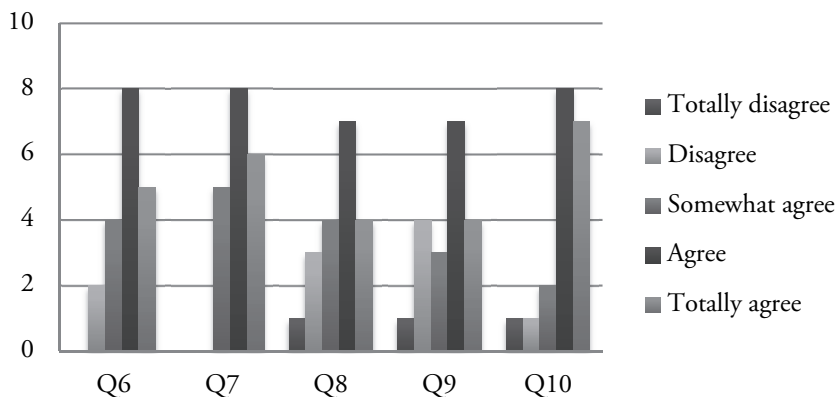
Figure 9. Student's final questionnaire (c): Total results.

The qualitative analyses of the students' suggestions for improvement revealed certain teaching issues that deserve especial attention. For instance, a student wrote "We should speak every session at least half an hour. It will improve our pronunciation". This makes us think that the learner would not only focus on pronunciation teaching through ICTs, but s/he would also like to perform oral activities in groups where all of them can interact with each other. Another student said "We could record some films or series scenes", that is, the design of these activities would be appealing for EFL learners. Other comments they wrote were related to *Voki's* advantages; saving all the recordings in the platform, for example. In this sense, students do not have to worry about losing their audio files since the *Voki* platform allows immediate access. Astonishingly, there was a student who claimed "I don't know what is *Voki's* advantage is but I like *lyricstraining. com*". It may be the case that this student could not manage with the use of *Voki* easily.

5. Conclusions

Conclusions to this study can be drawn in two different dimensions. On the one hand, students' level of English pronunciation, their use of ICTs for learning purposes and other aspects related to their learning of the English language have been observed. On the other hand, a study like the one presented here allows us to draw some conclusions as to the practical advantages of the online resource under study, and its impact in educational settings. In line with this, small studies concerning the use of ICTs in the EFL classroom such as the one carried out here stand for a deeper analysis of the usefulness of *Voki* and its implementation in a teaching curriculum.

This study departed from the following research questions: (a) Does *Voki* help students to improve their pronunciation? and (b) Do they have a positive attitude towards the use of ICTs, and more concretely *Voki*, for the learning of pronunciation? Thus, the purpose of

this paper was twofold. On the one hand, to check to what extent the incorporation and use of *Voki* in the *Pronunciation and Understanding of Spoken English* module, delivered at a Spanish university, contributed to improve first-year students' pronunciation. On the other hand, to investigate if they have positive or negative attitudes towards the implementation of ICTs for the learning of pronunciation.

Results suggest that it has been a satisfactory experience for EFL learners. The conclusions drawn from students' initial questionnaires show that a large number of participants had little previous experience with the use of ICTs in the EFL class. They claimed having used ICTs for entertainment purposes rather than for the learning of a target language. Once their experience with these online tools finished, it can be stated that most of them have improved their English pronunciation. In fact, as can be observed in the minimal pairs activity results (Figure 4), the number of mispronunciations decreased in their second attempt. This is the reason why they are satisfied with this teaching proposal as can be observed in their second recording. In other words, they have shown a positive attitude towards the use of ICTs as they consider that *Voki* is potentially useful for the learning of English pronunciation.

Nonetheless, limitations of this study need to be acknowledged. Firstly, the site provides students with neither phonetic symbols nor the characteristic features of connected speech. Because of that, *Voki* has been used in combination with other ICT tools, such as online dictionaries and *lyricstraining.com*, which allow them to check those phonetic symbols and pick up features of connected speech respectively.

Secondly, the fact that not all of the students attended class regularly made it difficult to gather all the data in the same session, and thus give them feedback. Finally, network problems might discourage participants from enjoying the learning experience.

From our point of view, this teaching proposal may be relevant to the extent that it shows the beneficial effects of using ICTs and authentic materials in the *Pronunciation and Understanding of Spoken English* module. Apart from that, some authors (Lee, 2008; Pennington, 1999; Young and Wang, 2014) pointed out that students can benefit from digital resources in the field of pronunciation for several reasons: these can provide the opportunity to repeat and practise sounds as many times as necessary, and to develop their autonomy in the learning process, among others. The implementation of ICTs in educational settings is not only restricted to EFL instruction, but they also promote learners' autonomy and positive attitudes towards the learning process. In fact, students are highly motivated, thereby participating actively in the classroom. Hence, its implementation as part of its course syllabus should be taken into consideration in other English pronunciation modules. To do so, three aspects should be paramount: (a) having broad and high quality access to online resources, (b) making use of online resources on a regular basis, and (c) training not only students but also teachers to use ICTs –in this particular case the use of *Voki*– in the EFL classroom.

To this point, special mention should be made of these findings in terms of pedagogical implementations. This research study also showed that most of the students would

preferably work collectively, in pairs or groups. Therefore, interactive activities should be developed. Secondly, the results of this proposal have proved to be satisfactory. The use of *Voki* in the minimal pair and diphthongs activities raises students' awareness as they get to distinguish their pronunciation errors, correcting them in a second recording. In this sense, the purposes of the course syllabus are fulfilled.

As *Voki* does not contain features of connected speech, it should be employed together with other ICTs to complete the activity competently. At the same time, it could be used to expose EFL learners to a variety of accents, including Scottish, Australian, and South African among others. This would allow students to train their listening skills as well as to know how the intonation changes from one accent to another.

Nonetheless, some longitudinal research could be useful in the *Pronunciation and Understanding of Spoken English* module to get a chronological view of students' progress. This would allow us to come to an agreement on the incorporation of this teaching practice in the university curriculum.

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Appendices

Appendix 1: Students' initial questionnaire

Students' Initial Questionnaire
Subject EA0910 English Pronunciation
2015-2016

Gender: ☐ M   ☐ F

Born in (YEAR):

What is your level of English?

☐ A1   ☐ A2   ☐ B1   ☐ B2   ☐ C1   ☐ C2

Do you use Information and Communication Technologies (ICTs) regularly?

☐ Yes   ☐ No

What do you use ICTs for?

☐ Internet   ☐ e-mail   ☐ *Voki*   ☐ blog   ☐ others: which one?_____

Score yourself from 1 to 5.

		less-more			
Questions	**1**	**2**	**3**	**4**	**5**
Have you ever used ICTs in your EFL classes?					
What's your level of English pronunciation?					
Do you think it is important to speak English accurately?					
Would you prefer to speak more English in class rather than doing book activities?					
Do you usually use ICTs in other subjects?					
Do you think the English language methodology is interactive and suitable? (learner-centred, communicative, competence-led)					

Appendix 2: Final Students' Questionnaire

Final Students' Questionnaire

	less-more				
Questions	**1**	**2**	**3**	**4**	**5**
I consider a waste of time having to use ICTs. It should be optional.					
I prefer working in groups and using spoken language because that would be better for my learning process.					
The activities are motivating and attractive.					
I can monitor my own progress.					
The implementation of ICTs is aimed at developing the competencies established in the course syllabus.					
The use of ICTs has allowed me to improve my English pronunciation.					
ICTs contribute to the development of independent foreign language learning.					
ICTs should be implemented in the following courses of the degree.					
I will keep using ICTs at home.					
I'm satisfied with this teaching proposal.					

Observations / Suggestions for improvement

Appendix 3: Activities

Minimal Pairs

1. Read the following minimal pairs and record yourself using *Voki*.
- Fine, vine
- Pin, spin
- Top, stop, strop
- Bed, sped
- Toy, tie
- Say, seer
- Dog, god
- Bib, did, gig
- Gate, get, got goat, gut

2. Then, use *Voki* to check if you pronounced them correctly. If you did not pronounce a word properly, write it down and record it again.

Diphthongs

1. Read the lyrics of the song Demons by Imagine Dragons. Identify the words with diphthongs and classify them in the table below.

/aɪ/	/aʊ/	/eɪ/	/əʊ/	/eə/

2. Now use Voki and record yourself saying these words. Try it first with a British accent, and then with an American one.

3. Then listen to the song and check if you pronounced them correctly. If you did not pronounce a word properly, write it down and record it again.

4. Can you identify any minimal pairs? Record them.

Connected Speech

1. Reproduce these songs excerpts as part of natural conversation. To do so, use features of connected speech (e.g. contractions, weak forms, assimilation, elision, linking r, etc.).

> It might seem crazy what I am about to say
> Sunshine she is here, you can take a break
> I am a hot air balloon, I could go to space
> With the air, like I do not care baby by the way
> (*Happy* by Pharrell Williams)

> Yeah I am going to dance my heart out until the dawn
> But I will not be done when morning comes
> Doing it all night, all summer
> Going to spend it like no other
> (*Lush life* by Zara Larrson)

> I do not want to close my eyes
> I do not want to fall asleep
> Because I would miss you, baby
> And I do not want to miss a thing
> (*Don't wanna miss a thing* by Aerosmith)

> If I got locked away
> And we lost it all today
> Tell me honestly, would you still love me the same?
> (*Locked away* by Adam Levine)

2. Then listen to the songs and check your pronunciation.