

# ADVANCED SPANISH UNIVERSITY STUDENTS' PROBLEMS WITH THE PRONUNCIATION OF ENGLISH VOWELS. IDENTIFICATION, ANALYSIS AND TEACHING IMPLICATIONS<sup>1</sup>

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**Abstract:** Previous research has tended to focus on the main difficulties that Spanish learners of English have with pronunciation due to total and partial differences between the phonological systems of the L1 and L2. The present study aims to contribute to this field, providing empirical data on the specific problems with the pronunciation of vowels of a group of advanced learners. Findings indicate that several English vowels, especially the *north*, *palm*, schwa and *goat* vowels, continue to pose many difficulties at higher levels of proficiency; hence the teaching of these sounds should be emphasised at earlier stages.

**Keywords:** EFL, pronunciation, vowels, advanced Spanish learners, teaching

**Title in Spanish:** Los problemas de estudiantes españoles universitarios avanzados de inglés con la pronunciación de las vocales inglesas. Identificación, análisis e implicaciones pedagógicas.

**Resumen:** Investigaciones previas se han concentrado en las principales dificultades que los estudiantes españoles de inglés tienen con la pronunciación debido a las diferencias totales y parciales entre los sistemas fonéticos de la primera y segunda lengua. Este estudio pretende hacer una aportación en este campo al ofrecer datos empíricos sobre las dificultades específicas de estudiantes avanzados con las vocales. Los resultados indican que algunas vocales, especialmente las vocales *north*, *palm*, *schwa* y *goat*, continúan siendo un problema para los alumnos avanzados y, por lo tanto, se debería de enfatizar la enseñanza de dichos sonidos desde niveles inferiores.

**Palabras clave:** inglés como lengua extranjera, pronunciación, vocales, aprendices españoles avanzados, enseñanza

## 1. INTRODUCTION

English pronunciation is generally considered to be difficult for foreign learners (Martínez Flor, Usó-Juan and Alcón Soler 2006; Aliaga- García 2007), mainly due to: a)

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the lack of transparency between the orthographic and phonetic systems; and, b) because personal factors such as age, the degree of exposure to the L2, motivation and language aptitude also influence the language learning process. Yet in recent decades pronunciation has not received as much attention in the teaching of English as a foreign language (EFL) as other areas of language, such as grammar, reading and vocabulary (Wei 2006; Griffiths 2004; Derwing 2010; Underhill 2010; Fouz and Mompean 2012). Moreover, the techniques and methods currently used in the teaching of pronunciation in EFL classes are often the same ones that were used several decades ago, principally discrimination exercises and listen and repeat tasks:

while much has changed in the last few decades in how to teach grammar, vocabulary, collocation, context and meaning, I suggest that pronunciation is still rooted in an essentially behaviourist paradigm of listen, identify, discriminate and repeat. [...] teachers do their best to integrate pronunciation but for many it remains a supplement to the main diet of most lessons, often relegated in lessons and course books to <pron slots>. (Underhill 2010)

Attempts have been made to explore the reasons for this. Thus, it is argued that the teaching of pronunciation, as with the remaining oral skills, is often regarded as time-consuming, and requires excessive time and dedication. Also, there is a “lack of clear guidelines and rules available in course books” (Griffiths 2004). In addition, students and teachers tend to “lack a mental map to guide them through this unknown pronunciation territory” (Underhill 2010). Finally, teachers do not feel confident enough to teach pronunciation since they themselves feel that they have not received enough training to do so (Dixo and Pow 2000).

In Spain, the teaching of English pronunciation is in no way an exception to the situation described above. In fact, it has been common practice to pay more attention to reading, writing, grammar and vocabulary than to the oral skills, that is, listening and speaking, with pronunciation of course being an essential part of the latter. This may seem surprising, since the oral component continues to be the main weakness of Spanish EFL learners and hence is perhaps the language skill that requires most attention in the classroom.

Spanish learners of English tend to have serious problems when facing English pronunciation, mainly due to the lack of many similarities between the phonological systems of the two languages. For instance, the number of standard English<sup>3</sup> vowels is clearly greater than in Spanish. Moreover, Spanish words follow a completely regular system of correspondences between spelling and pronunciation, whereas in English the orthographical and phonological systems have a non-transparent relationship, adding a further problem for native Spanish learners of English.

Many studies over recent decades have tried to provide insights into the main problems that Spanish learners encounter with English pronunciation, and reveal both similarities and differences in the phonological systems of the two languages (Kenworthy 1987; Sánchez 1994; Alcaraz and Moody 1999; Palacios 2000; Estebas 2009).

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<sup>3</sup> Most of which do not exist in Spanish.

Regarding vowels, the aforementioned studies indicate that the most complex problems for Spanish learners are caused by the distinction between long and short vowels,<sup>4</sup> by schwa and the *strut* vowels, and by a number of diphthongs, such as /əʊ/ and /ʊə/.

A major difference in the vocalic systems of English and Spanish is the fact that the latter only has five monophthongal sounds: 1) an open, central vowel /a/; 2) a semi-open, front vowel /e/; 3) a semi-open, back vowel /o/; 4) a closed, front vowel /i/; and, 5) a closed, back vowel /u/. Standard British English, by contrast, has twelve monophthongal vowels: 1) a high front close vowel, /i:/; 2) a mid-high front half close vowel, /ɪ/; 3) a mid front half close vowel, /e/; 4) a mid-low front half open vowel, /æ/; 5) a mid-high central half close vowel, /ɜ:/; 6) a mid central half open vowel, /ə/; 7) a mid-low central half open vowel, /ʌ/; 8) a high back close vowel, /u:/; 9) a mid-high back half close vowel, /ʊ/; 10) a mid-low back half open vowel, /ɔ:/; 11) a mid-low back half open vowel, /ɒ/; and, 12) a low back open vowel, /ɑ:/.

As can be seen from the above, in none of the five Spanish vowels does the place of articulation wholly coincide with any of their possible counterparts in English. For instance, the Spanish open, central-mid vowel /a/ is not pronounced in the same way as any of the following British English vowels, that is, the mid-low front half open /æ/, the mid-low central half open vowel, /ʌ/ and the low back open vowel, /ɑ:/. Hence, Spanish learners of English would ideally have to learn to pronounce each of the monophthongal English vowels since although comparisons between their native vocalic system and that of the target system can be established, there will always be minor differences to be taken into consideration regarding the place of articulation, length or position of the jaw:

si comparamos la cualidad de las vocales inglesas y castellanas, comprobamos que sus áreas de realizaciones posibles no coinciden en ningún caso. [...] Si bien algunos de los fonemas vocálicos ingleses se acercan mucho, o resultan muy parecidos, a algunos de los castellanos. De hecho, las vocales inglesas /i:/, e, ɔ:/, u:/ podrían tomarse como casi equivalentes a las vocales castellanas /i, e, o, u/, respectivamente. [...] El resto de vocales inglesas difiere de las vocales castellanas en un grado mayor. El castellano, al no poseer sonidos en el centro del diagrama vocálico, no tiene vocales que se le acerquen a las vocales centrales y débiles inglesas /ɜ:/, ə, ɪ, ʊ/. Además, mientras que en inglés la /ɒ/ y la /ɑ:/ ocupan la parte inferior derecha del diagrama vocálico, en castellano este espacio se encuentra vacío. (Gallardo and Gómez 2010: 47)

Another problem commonly ascribed to Spanish EFL learners' pronunciation is the lack of distinction between short and long vowels. Whereas standard varieties of English, such as British and American English, differentiate some vowels in terms of length, this phonetic feature is not a distinctive one for Spanish vowels. Studies, including some of those noted above, have observed that Spanish learners will tend to have considerable problems with the pronunciation of vowels such as the *nurse* or the *north* vowels.

Moreover, teachers of EFL to Spanish learners should pay special attention to the English vowels /ʌ/ and /ə/, that is, the *strut* vowel and schwa. In the case of the former, some Spanish words contain a similar vowel, such as the pronunciation of the final <a> in

<sup>4</sup> This is the case because length is not a distinctive feature in the Spanish vocalic system.

words like *palabra* and *guitarra*. Nevertheless, Spanish students of English tend to have significant problems in the distinction between /ʌ/, /æ/ and /a:/, both at a perceptive and a productive level. Concerning schwa, problems for Spanish learners arise in that they tend to pronounce it as a full vowel, guided by the actual spelling of the word in question. For instance, *computer* or *actor* are commonly pronounced with the endings /er/ and /ɔr/, respectively.

Finally, previous research has also addressed differences between English and Spanish diphthongs, identifying diphthongs such as /ʊə/ and /əʊ/ as problematic for Spanish learners of English, in that they do not exist in the learners' native language.

The existing studies mentioned above tended to deal with all these problems on a mostly theoretical level by providing detailed phonetic and phonological comparisons of the two languages in question, without taking into account the learners' age, level of proficiency or whether other native or non-native languages are spoken.

The present study is intended to contribute to previous research by being of a more practical nature, and will offer some empirical data regarding the specific problems encountered in the acquisition of English vowels by a group of advanced Spanish learners. It is expected that students at this level of proficiency will have overcome most of the major difficulties discussed in studies such as those mentioned above. Hence, the vowels that EFL teachers at this level might usefully focus on will not necessarily encompass the whole range of difficulties noted in these theoretical studies.

Hence, the current pilot study has several aims: a) to outline and analyse the main problems with English vowels in a group of ten advanced Spanish learners of English, all enrolled in the third and fifth years of the former five-year BA university degree of English studies,<sup>5</sup> during spoken tasks; b) to identify the main pronunciation errors made; c) to propose possible explanations for these mistakes; d) to identify the main problems that Spanish EFL teachers at the advanced levels of proficiency should focus on according to the pedagogical implications arising; and, e) to outline the kind of approaches and activities that EFL teachers might carry out at the university level in order to help their students overcome problems in their pronunciation and to achieve the most intelligible oral communication possible.

Thus, the main research questions are:

- a) Have students of this level of proficiency overcome some of the difficulties regarding English vowels typically mentioned in the literature?
- b) Which vowels do advanced university students continue to have problems with?
- c) To what degree do the findings here coincide with those in the existing literature?

This study is part of a larger project, in which all possible problems that may occur at the segmental level, relating to both consonants and vowels, are considered. Furthermore, this larger project entails comparisons between production at an advanced level of proficiency and two lower levels, third year of Obligatory Secondary Education (*ESO* year three) and first year of Post-Obligatory Secondary Education (*Bachillerato* year one).

<sup>5</sup> Known as *Filología Inglesa*, now changed into a four-year BA degree called *Grado en Lengua y Literatura Inglesas*.

## 2. THE STUDY

### 2.1. Subjects

A total of ten university students participated in the study, all enrolled in the old five-year BA in English Studies at the University of Santiago de Compostela, Galicia<sup>6</sup>. Five were in their third year of study (group A), and five in their fifth and final year (group B).

All subjects were female, their ages ranging from 20 to 24. They had been exposed to English in obligatory EFL classes for around 13-15 years, and all volunteered to participate, having been invited to do so by their EFL teacher. Regarding mother tongue, all of them were bilinguals (in Castilian Spanish and Galician). The only requirement for inclusion was not to be a native speaker of English and not to have lived in an English-speaking country for a long period of time.

### 2.2. Research materials

Three forms of elicitation were used to collect the data: a) a personal interview; b) a photo-description; and, c) the reading aloud of a text. However, as will be discussed below, only the oral description and reading tasks were considered in the final data analysis.

These activities were chosen for several reasons. First, official exams such as the Cambridge EFL exams<sup>7</sup> or those taken at the Spanish School of Languages<sup>8</sup> often use picture description tasks to assess learners' speaking skills.

The description task followed a completely spoken format, whereas the reading activity represented a written text that had to be interpreted orally. It was believed that the results obtained in these two tasks would support and complement each other, in that they differed in several ways. On the one hand, the photo description task was of a more spontaneous nature, as the subjects had no time for planning and had to improvise; also, in this activity affective factors played an important role, as signs of anxiety and hesitation more naturally occur in this kind of production. On the other hand, the reading task was of relatively controlled in nature; the students were able to see the written version, although the written text, in addition to potentially offering help in pronunciation, may also have had an adverse effect here, given the lack of transparency between spelling and pronunciation in English.

Each subject completed the three tasks individually. The only language used was English and the whole procedure lasted between fifteen and twenty minutes. The data-collection period was from November 2009 to April 2010.

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<sup>6</sup> Galicia, in the North-west of Spain, is a bilingual community. It has two official languages: Castilian and Galician, both of which are used in education.

<sup>7</sup> Preliminary English Test (PET), Key English Test (KET), First Certificate (FCE), Advanced (CAE) and Proficiency (CPE).

<sup>8</sup> *Escuelas Oficiales de Idiomas* (EOIs).

### 2.2.1. *Personal interview*

In this activity, the students were given a list of topics, such as favourite animals, sports which they liked and/or practised, future jobs, family members, foreign languages spoken, and favourite school/university subjects. Afterwards, they were asked to talk about themselves in English for a few minutes. This activity was used mainly as an ice-breaker, as a means of gradually calming participants down prior to the somewhat stressful procedure of being recorded in a foreign language; hence, data here were not taken into account in the subsequent analysis.

### 2.2.2. *Picture description*

In this task, subjects were asked to describe a series of images that represented a story with a specific beginning and ending; in particular, they had to describe “a bad day in a man’s life”. It was possible to see the pictures in terms of three pairs: one pair showing events in the morning, one for the afternoon, and the remaining one for the evening/night. To exemplify the task, an example description (of our own) is given in (1):

(1) In the first picture, we can see a man who is getting ready to have a bath at a quarter to eight in the morning. Suddenly, his phone starts ringing and, after speaking on the phone, he returns to the bathroom and discovers that the floor is flooded because he left the tap running.

At lunchtime, he is on his lunch break and decides to use the lift to go back to his office, but suddenly the lift stops working; he gets stuck on the third floor and has to wait for over half an hour to be rescued by someone.

Finally, in the evening, he is riding home on his bike after a hard day at work and he does not see the red traffic lights; he goes round the corner and crashes into a car. In the end, we can see the man walking home with his clothes dirty, his bicycle broken and with an angry expression on his face as a result of the really bad day he has had.

As can be seen in the description above, both well-known and less known words could be used in this activity (*bath, bathroom, job, work, water, red, car, man* versus *tap, flood, stuck*, etc), containing a wide range of English monophthongs and diphthongs, such as, /a:/ in *bathroom, bath, past*; /æ/ in *tap, man*; and /əʊ/ as in *robe, goes*.

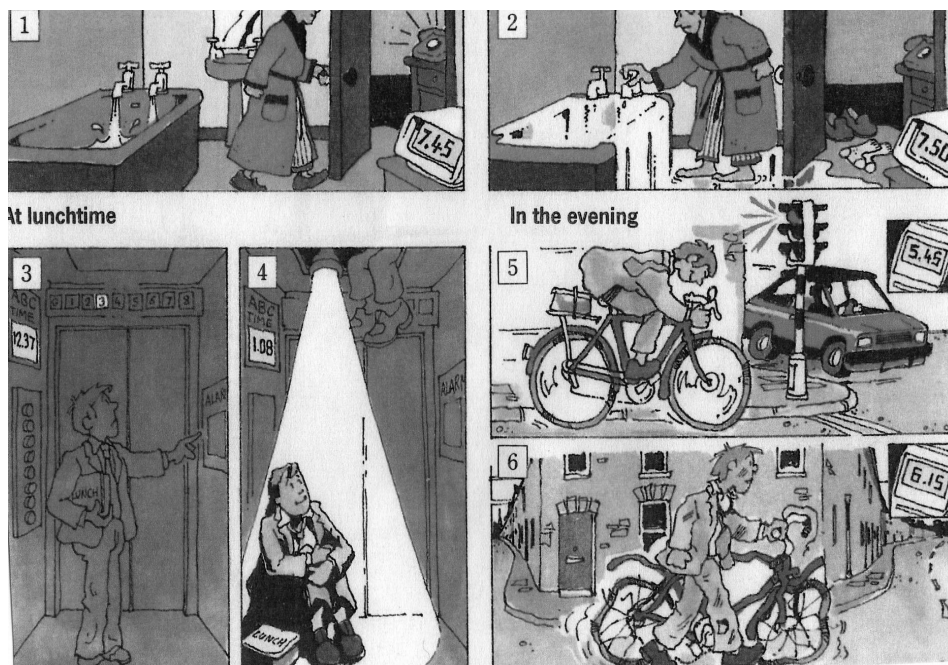


Image 1: pictures used for the description tasks.

### 2.2.3. Text reading

Finally, the students had to read aloud a 160-word text titled *Downloading music* (cf. table 1). It was taken from the textbook *Oxford Spotlight 3*<sup>9</sup> which is addressed to students in the third year of Obligatory Secondary Education (*ESO third year*)<sup>10</sup>. It was chosen because, a) it contained examples of words with the majority of British English vowels<sup>11</sup> and, b) it was considered an authentic text on a popular topic, since most students probably listen to music regularly, and at some point or other will have downloaded a song, film, e-book, programme etc., perhaps without being aware of the consequences of this illegal practice.

<sup>9</sup> DAVIES, P. A. and T. FALLA. 2005. *Oxford Spotlight 3*. Oxford: Oxford University Press.

<sup>10</sup> The reason for taking the text from a lower-level proficiency textbook is that, as mentioned in the introduction, this study is part of a broader project in which learners belonging to other levels of proficiency also took part.

<sup>11</sup> For instance, we can find examples of ten British English vowels in the first two sentences of the text: music /u:/, i/, business /ə/, shops /ɒ/, U.K. /eɪ/, sold /ɒʊ/, more /ɔ:/, hundred /ʌ/, CDs /i:/, thousand /aʊ/.

DOWNLOADING MUSIC: extracted from the textbook *Oxford Spotlight 3*, pp. 100

“Music is big business. Shops in the UK sold more than 150 million CDs in 2003. However, more and more people are starting to download music from the internet.

Quick fact:

- 20% of people only download music.
- 45% buy all their music on CDs.
- 35% download music and buy CDs too.

Is it illegal to download music from the internet?

No, not always. You can download music from shops on the internet, but you have to pay for it. However it's usually illegal to download music without paying, or to put music onto your computer so that other people can download it. The music industry has started taking legal action against people who share music in this way. Brianna LaHara, a 12-year-old girl from New York, had to pay \$2,000 after sharing music with her school friends”.

Quick fact:

The iTunes Music Store, the world's largest internet download shop, sells four million songs every week.”

Table 1: the reading-aloud task.

### 3. DATA ANALYSIS

A database was created for the information collected from both tasks; data were then transcribed by using the International Phonetic Alphabet (IPA), taking the variety Received Pronunciation (RP) as a model, since: a) it is the standard variety that has been most widely taught in Spain; b) students tend to ask for this variety (Hooke and Rowell 1982; Roach 1983; Pennock and Vickers 2000); c) it is found more frequently in both EFL textbooks and pronunciation dictionaries than any other variety; and d) as Roach (1983: 3) observes, “it is the one that is most frequently recommended for foreign learners studying British English.”

Regarding a more specific description of the methods and procedures used for data analysis, firstly, the data obtained in the photo-descriptions (cf. tables 2-4 for examples) was assessed following four steps: a) a text transcription that included pauses, hesitations, laughs... (cf. table 2); b) a normal version of the same original spoken text (in table 3), with no type of manipulation, that is, the text in the original form, exactly as it was recorded; c) a phonetic transcription using the International Phonetic Alphabet (IPA) (in table 4). The pronunciation mistakes encountered were highlighted in red and each of them was given a number; and, d) some comments were added by the researcher.



## Step 1: TEXT TRANSCRIPTION (Subject number 9)

Okay hhh. (1.0) {{ah}} in the first on:e (1.5) this is made at very early in the morning hhh, he it seems that he I mean sorry it seems that he was going to take a shower but as the: hhh, (0.5) the telephone is ringing heh heh he has first to go and (0.5) pick up heh heh the phone and then (0.5) he will have a shower (0.5) comfortably and heh heh with time (2.5) hhh,

Then (0.5) five minutes later (0.5) {{aha}} because as he forgot to: (1.0) hhh, to close the: (0.5) I can't remember the name now hhh, heh heh the bill no

B. (tap)

A. the tap yes (0.5) hhh, the tap {{e:h}} (0.5) hhh, there is a like a flood {{e:h}} (1.0) on his floor on the bathroom floor (0.5) so (0.5) he seems worried heh heh because of his face hhh,

The:n (0.7) in the third one he is inside the: (0.5) the lift (1.0) and or no he's going to press the alarm (0.5) I don't know why hhh. (1.5) maybe because in the next one he's on his own (0.5) hhh. and someone (0.5) is going to rescue him maybe: (0.5) there was some breakdown of the lift (1.0) or something else heh heh

Then at this one it's at {{eh}} quarter to six (0.5) maybe p.m (0.5) he is riding a bicycle (1.5) it seems that he doesn't realize that (0.5) hhh, the: (0.5) traffic light is red so he doesn't stop (1.0) on time and he cannot see a car who is which is coming hhh, and (0.5) as we can see in the: next heh heh picture he had an accident he {{em}} (0.5) bumps into the car so heh the bicycle is totally ruined a:nd (0.5) hhh, his physical aspect (0.5) this is seems damaged too hhh.

Table 2: An example of text-transcription.

## Step 2: NORMAL VERSION (Subject number 9)

Okay in the first one this is made at very early in the morning he it seems that he I mean sorry it seems that he was going to take a shower but as the the telephone is ringing he has first to go and pick up the phone and then he will have a shower comfortably and with time. Then five minutes later because as he forgot to to close the I can't remember the name now the bill no (tap)

The tap yes the tap there is a like a flood on his floor on the bathroom floor so he seems worried because of his face. Then in the third one he is inside the the lift and or no he's going to press the alarm I don't know why maybe because in the next one he's on his own and someone is going to rescue him maybe there was some breakdown of the lift or something else. Then at this one it's at quarter to six maybe p.m. he is riding a bicycle it seems that he doesn't realize that the traffic light is red so he doesn't stop on time and he cannot see a car who is which is coming and as we can see in the next picture he had an accident he bumps into the car so the bicycle is totally ruined and his physical aspect this is damaged too

Table 3: An example of a normal text, without manipulation.

## Step 3: PHONETIC TRANSCRIPTION (Subject number 9)

/θʊkeɪ ɪn ðə fɜːs wʌn ðɪz ɪz meɪd æt veri ːli ɪn ðə mɔːnɪŋ (1) hiː ɪt siːmz ðæt hiː aɪ miːn sɔːri ɪt siːmz ðæt hiː wəz ɡəʊɪŋ tuː teɪk ðə ʃaʊər (2) bʌt æz ðə ðə telefɒn (3) ɪz rɪŋɪŋ hiː hæz fɜːs tuː ɡəʊ æn pɪk ʌp ðə fɔʊn æn ðen hiː wɪl hæv æ ʃaʊər (4) kɒm'fɔːtəblɪ (5) æn wɪð tæm/

- (1) The *north* vowel in “morning” was replaced by the *lot* vowel + /r/
- (2) The schwa in “shower” was replaced by the *dress* sound + /r/
- (3) The *goat* diphthong was pronounced as the *lot* vowel
- (4) “Shower” was pronounced with the *dress* vowel + /r/ instead of schwa
- (5) “Comfortably” was pronounced with two *lot* vowels instead of the *strut* vowel in /kʌm/ and no vowel pronounced in <for>. In other words, this subject pronounced “comfortably” in four syllables /kɒm/ /'fɔː/ /tæ/ /blɪ/ instead of three /kʌmf/ /tθ/ /blɪ/. Moreover, schwa was replaced by the *trap* vowel. The stress pattern was also confused since the subject stressed this word on the second syllable instead of on the first one.

Table 4: An example of a phonetic transcription.

In the case of the reading-aloud text, two similar steps were carried out: a) a table was created for each subject containing a full description of the pronunciation mistakes made during the task. The table comprises three columns: the first one lists the different words pronounced incorrectly, the second contains the phonetic transcriptions of the mispronounced words, and the last column gives a brief explanation of the observed problems; and, b) as

in the description activity, some comments were made and conclusions drawn. In table 5 below, there is an example of the procedures for data analysis followed for this task. It is again taken from subject 9 in the database:

Mistakes	Incorrect pronunciation	Problem
Computer	/kɒmpju:ter/	Pronunciation of <i>dress</i> vowel + /r/ instead of schwa Distinction between the <i>lot</i> vowel and schwa
Illegal	/ɪlɪgəl/	Distinction between /ɪ/ and /i:/

Table 5: Data analysis procedures of the reading task.

## 4. RESULTS

### 4.1. General results

A total of 209 mistakes concerning English vowels were made by subjects. As expected, the students with the highest level of proficiency, those in the fifth-year of the selected BA (group B), made slightly fewer mistakes, 99 in total, than those in their third year of the same university degree (group A), with 110 mistakes.

The four vowels that subjects had most problems with were: 1) schwa, 2) the *north* vowel, 3) the *palm* vowel, and 4) the *goat* vowel.<sup>12</sup> Furthermore, fewer than 10 mistakes were identified for the *square*, *nurse*, *fleece*, *kit*, *face*, *goose*, *mouth*, *trap*, *near* and *strut* vowels. In the following subsections, we will outline the specific findings for each of the vowels and give a list of the vocalic changes made by the subjects for each of them, that is, the vowel sounds that the students pronounced instead of the correct ones.

#### 4.1.1. General problems with schwa

A total of 62 mistakes were made in the pronunciation of schwa, the most frequently found vowel in RP English. Thus, 29.66% of all mistakes across the two groups were caused by the mispronunciation of this vowel, with the third year BA students making significantly more errors here (39) than the fifth-year students (23).

Concerning the vowels that were pronounced instead of schwa, the following was observed: a) as can be seen in table 6 below, schwa was pronounced as /e/ on 24 occasions by group A and 7 occasions by group B; b) it was confused with the *lot* vowel 12 times (7 by group A, 5 by group B); c) schwa was confused with the *foot* vowel on one occasion in group A, group B did so 4 times; d) the *trap* vowel was used instead of schwa 3 times

<sup>12</sup> Following John Wells' inventory of vowel sounds for RP.

by group A and 7 by group B; e) on 3 occasions, group A used the *kit* vowel; and, f) one subject from group A confused schwa with the *strut* sound.

Third year English Philology			Fifth year English Philology		
Number of mistakes		Examples	Number of mistakes		Examples
/e/	24	<i>Answer,</i> <i>computer</i>	/e/	7	<i>Remember,</i> <i>picture</i>
/ɒ/	7	<i>Action, computer</i>	/ɒ/	5	<i>Elevator,</i> <i>computer</i>
/ʊ/	1	<i>Picture</i>	/ʊ/	4	<i>Picture</i>
/æ/	3	<i>Illegal</i>	/æ/	7	<i>Physical</i>
/ɪ/	3	<i>Broken</i>			
/ʌ/	1	<i>Suppose</i>			

Table 6: General mistakes with schwa.

#### 4.1.2. General problems with the north vowel

A total of 43 mistakes were identified in the pronunciation of the *north* vowel, which represents 20.57% of the total mistakes recorded. Group A had problems with this long vowel on 25 occasions compared to 18 times for group B.

Finally, regarding the vowels pronounced instead of the *north* vowel, the following was found: a) in the majority of cases (42) it was pronounced as the *lot* vowel; b) one student in group A used the *goat* diphthong on a single occasion (cf. table 7).

Third year English Philology			Fifth year English Philology		
Number of mistakes		Examples	Number of mistakes		Examples
/ɒ/	24	<i>Morning, talking</i>	/ɒ/	18	<i>Quarter, water</i>
/əʊ/	1	<i>No</i>			

Table 7: General problems with the *north* vowel.

#### 4.1.3. General problems with the palm vowel

Thirty-seven mistakes were made with this long vowel, some 17.7% of the total. Once again, group B made slightly fewer mistakes (15) than group A (22).

In every case, the mispronunciation involved the use of the *trap* sound.

Third year English Philology			Fifth year English Philology		
Number of mistakes		Examples	Number of mistakes		Examples
/æ/	22	<i>Bathroom, after</i>	/æ/	15	<i>Already, alarm</i>

Table 8: general problems with the *palm* vowel.

#### 4.1.4. General problems with the goat vowel

This diphthong posed difficulties for the subjects on 15 occasions, representing 5.17% of the total of 209 errors identified in the study. As can be seen in table 9 below, surprisingly, the students with the higher level of proficiency made considerably more mistakes with this diphthong (12) than those in group A (3).

On the 3 occasions that this sound entailed problems for the subjects in group A, it was replaced by the *lot* vowel; similarly, the majority of mispronunciations made by the participants in group B also used this short vowel instead of the diphthong (8); however, the *strut* vowel was also used 3 times and, on one occasion the diphthong /ɒʊ/, non-existent in English.

Third year English Philology			Fifth year English Philology		
Number of mistakes		Examples	Number of mistakes		Examples
/ɒ/	3	<i>Download</i>	/ɒ/	8	<i>Okay, zero</i>
			/^/	3	<i>Download</i>
			/ɒʊ /	1	<i>No</i>

Table 9: general problems with the *goat* vowel.

#### 4.1.5. Other minor problems

The subjects had a few problems with other English vocalic sounds, namely the *square*, *nurse*, *fleece*, *kit*, *face*, *goose*, *mouth*, *trap*, *near* and *strut* vowels.

Firstly, concerning the diphthongs, the following was found: a) the *face* vowel was confused only by students in group B on four occasions, with this diphthong pronounced /aɪ/, /eɪ/ or /i:/: b) the *mouth* diphthong was pronounced incorrectly on seven occasions (5 times by group A and 2 by group B). Most frequently used instead was the *strut* vowel (4 times), followed by the *lot* (2) and *foot* (1) vowels; c) the *square* diphthong also caused 4 mispronunciations, all using /eɪ/ and all by the participants in group B; d) finally, the *near* diphthong was only pronounced incorrectly on one occasion, by a subject from group B, who confused it with the *fleece* long vowel.

Secondly, other monophthongal vowels also posed some difficulty for the subjects: a) the *fleece* vowel was pronounced incorrectly on 3 occasions by group A and 6 times by group B, and was confused with /ɪ/, /e/ and /æ/: b) the *nurse* sound caused eight problems, five in group A and three in B, with /e/, schwa and the *lot* vowel used instead; c) the *kit* sound posed difficulties for subjects on 3 occasions, always confused with the diphthong /aɪ/: d) the groups made 3 mistakes each with the *goose* vowel, on four occasions mispronouncing it as the corresponding short /ʊ/, and once each as /ʊə/ and /ɒ/: e) the *trap* vowel caused

7 problems, five of which entailed confusions between this short vowel and /e/, and was replaced once by both schwa and the *kit* sound; f) finally, the *strut* vowel was only incorrectly pronounced by subjects in group B, using the *lot* vowel on two occasions and the *foot* vowel once. Tables 10 and 11 below provide some examples for each of the mistakes made.

<i>Face</i>	<i>Mouth</i>	<i>Square</i>	<i>Near</i>
/aɪ/ <i>Caiotic</i>	/ʌ/ <i>Download</i>	/e/ <i>Sharing, pair</i>	/i:/ <i>Realize</i>
/e/ <i>Afraid</i>	/ɒ/ <i>Download</i>		
/i:/ <i>Always</i>	/ʊ/ <i>However</i>		

Table 10: minor problems with diphthongs.

<i>Fleece</i>	<i>Nurse</i>	<i>Kit</i>	<i>Goose</i>	<i>Trap</i>	<i>Strut</i>
/ɪ/ <i>Seems, thirty</i>	/e/ <i>Girl</i>	/aɪ/ <i>Industry</i>	/ʊə/ <i>Rules</i>	/e/ <i>Man</i>	/ɒ/ <i>Button</i>
/e/ <i>Legal</i>	/ɒ/ <i>Work</i>		/ɒ/ <i>Room</i>		/ʊ/ <i>Industry</i>
/æ/ <i>Illegal</i>					

Table 11: minor problems with other monophthongs.

#### 4.2. Comparison of the mistakes made by each group

As was shown in the previous section, some problems of the third year students are more frequent than in the case of the fifth year participants. Yet on other occasions the opposite is the case, with certain English vowels appearing to pose more difficulties for the most advanced participants in group B than those in group A.

The subjects in group A had problems with a total of 10 vowels: schwa, *north*, *goat*, *nurse*, *palm*, *fleece*, *kit*, *goose*, *mouth* and *trap*; the students in group B, on the other hand, pronounced a total of 14 different English vowels incorrectly, that is, all the vowels analysed in this study: schwa, *north*, *goat*, *square*, *nurse*, *palm*, *fleece*, *kit*, *face*, *goose*, *mouth*, *trap*, *near*, and *strut*. So, whereas the majority of the problems detected are common to both groups, four vowel sounds posed difficulties only for subjects in group B, namely, the *square*, *face*, *near* and *strut* vowels. The number of subjects used, and the amount of data collected, mean that further research is required here before any firm conclusions can be drawn.

Another interesting point is to compare the frequency of mistakes made by each group of subjects for each vowel. As mentioned in section 4.1, the four main problematic vowels were schwa, *north*, *palm* and *goat*, that is, /ə, ɔ:, a:, əʊ/.

As expected, for each of these vowels, with the exception of the *goat* sound, the number of mistakes registered by group A was always higher than in group B. For instance, schwa

was incorrectly pronounced 39 times by the subjects in group A, compared to 23 times in group B. Concerning the rest of vowels that posed some degree of difficulty, the results are quite varied. In the majority of cases, the number of mistakes made was greater in the lower proficiency group, this being so for the *nurse*, *kit* and *mouth* sounds. However, with the *goat*, *fleece* and *trap* vowels the situation was very different, with more arising in the higher proficiency group, an example being the *goat* diphthong, incorrectly pronounced on 12 occasions by the subjects in group B but only 3 times by the participants in group A.

## 5. DISCUSSION, CONCLUSIONS AND PEDAGOGICAL IMPLICATIONS

The findings of the present study have significant implications for foreign language teaching, and in particular for the case of EFL teaching in Spain addressed here.

To begin with, four vowels, namely schwa, *north*, *palm* and *goat* (/ə, ɔ:, a:, əʊ/), seem to pose most difficulties for these advanced university students, with over 10 mistakes registered for each sound. Schwa and the long vowels *north* and *palm* are clearly the most problematic, accounting for more than 35 mistakes.

As mentioned in the introduction, schwa does not exist in Spanish, and hence Spanish learners of English tend to pronounce it as a full vowel, with a tendency to adopt a vowel sound corresponding to the spelling of the word. Many examples of this tendency were found in the results obtained in this study, for instance, the final sounds in *answer* and *computer* were pronounced as /e/ + /r/ as in the orthographical form instead of schwa.

Similarly, previous studies have drawn attention to the distinctions between short and long vowels as another general problem in the pronunciation of English by Spanish learners. However, the current study has also indicated that students at an advanced level of proficiency have more problems with the *north* and *palm* vowels than with the *nurse*, *fleece* or *goose* ones.

Finally, the absence of the *goat* diphthong in Spanish could also explain most of the problems that the students had with this sound. However, the fact that this was the only diphthong these students seemed to have several problems with may be due to the actual words that could be uttered in each activity. In other words, these activities may have included several more examples of items containing this English diphthong than other diphthongs and thus, once again, more research is needed with more subjects.

By considering the findings here with previous work in this area, the following conclusions can be drawn: a) although schwa is one of the most frequently used vowels in RP English, even students with an advanced knowledge of English (as is the case with these students) continue to make many mistakes with it, possibly because it does not exist in Spanish and thus is more difficult to imitate and use spontaneously; b) on the other hand, although another non-existent vowel in Spanish, the *strut* vowel, is considered to be a major problem for Spanish learners of English, it does not seem to pose many difficulties for advanced learners; c) concerning the distinctions between English long and short vowels, mistakes were made with the five long English vowels, *fleece*, *north*, *palm*, *nurse* and *goose*. However, only two vowels of this type caused substantial problems: the *north* vowel, with a total of 43 mistakes registered, and the *palm* vowel, with 37 mistakes; d) finally, regarding diphthongs, the only one that the participants pronounced incorrectly on many occasions

was the *goat* vowel. Furthermore, problems with other diphthongs absent from Spanish, such as the *cure*, *near* and *square* vowels, seem to have been (fully) overcome by students with this high level of English, although further research with more subjects is necessary to confirm this finding.

As expected, it can be claimed that almost all the mistakes made by the students were due to the influence of their L1 (or L1s) on their pronunciation. For instance, they showed problems with some English sounds that do not exist in Spanish or Galician (such as, long vowels and schwa).

Concerning the two types of research materials used for this study, we can conclude that, in the case of the reading task, the written text, which of course includes the spelling of words, is likely to have influenced informants' pronunciation, since their incorrect pronunciation was clearly closer to the vowels as spelled than their correct pronunciation. For instance, in the case of *legal*, several subjects pronounced the first vowel with the *dress* vowel instead of the *fleece* one. Moreover, the majority of mistakes made in this task involved the incorrect pronunciation of schwa and the pronunciation of long vowels as short ones, possibly because such vowels are represented by a single vocalic letter in the written form. Regarding the oral description task, surprisingly, very similar mistakes were registered: the majority concerned the pronunciation of a long vowel as a short one. A possible explanation for this is that students are more familiar with written texts than oral ones; indeed, even in speaking tasks there are usually some written instructions which have to be read prior to carrying out the tasks. Hence, in the description task, a general and dominant familiarity with the written word might have lead speakers to be guided by the orthographic form as seemed to be the case with *bath*, *bathroom*, *tap*, *water*, *telephone*, *o'clock*, *suddenly*, *over* and *corner*, that is, mistakenly trusting the remembered spelling forms to provide them with clues on pronunciation.

Another important element to bear in mind is that, although the data analysis only took into consideration the variety of RP, since it is the one that is most widely used in EFL classes in Spain and in the teaching materials available, further research should be carried out to determine whether students are happy with aiming at this British variety or whether, on the contrary, they would prefer to be exposed to other varieties. Indeed, we should perhaps pay greater attention to the influence of new varieties of English such as English as a Lingua Franca (ELF), (Seidlhofer 2005; Jenkins 2006, 2007), a variety that non-native English speaking people typically use to communicate with each other, either those with a shared L1 or from different language backgrounds. Thus, further research is needed to explore the extent to which the errors identified here entail lack of intelligibility (see Jenkins 2002), that is, whether other non-native Spanish speakers, as well as speakers with different L1s, can communicate among themselves efficiently in English while making these pronunciation mistakes.

As mentioned in the introduction, this study is part of a doctoral research project devoted to the identification and analysis of the role that pronunciation currently has in EFL classes and teaching materials in Galicia, and by extension, in Spain. Thus far, it appears that pronunciation continues to occupy a subordinate role in EFL classrooms (Calvo, 2012, 2013a). Moreover, the role of pronunciation in EFL textbooks used in Spain is also clearly inadequate, often containing no more than a few isolated sections of a repetitive format,



mainly simple *listen and repeat* tasks (cf. Calvo 2013b). This leads us to wonder whether the generally inadequate position of pronunciation teaching at the lower levels of teaching in Spain, specifically in Obligatory Secondary Education and Post-Obligatory Secondary Education, could be one of the main reasons why students with an advanced level of English, such as the subjects in this study, continue to have problems with certain English vowels, sounds which they might be expected to have overcome after exposure to this foreign language in obligatory EFL classes throughout their primary and secondary education. Further research is still needed here, since it is clear from the present findings that future graduate students in English continue to have many problems with English vowels, especially with schwa and the *north*, *goat* and *palm* sounds, and that, consequently, pronunciation needs to be emphasised, not only at the initial stages of study, but also at more advanced levels. Some possible solutions include: a) providing students with pronunciation-spelling rules. For instance, in the case of schwa, the majority of mistakes identified were in words spelt with –er, as in *computer*, *internet* and *after*. Teachers could draw students' attention to the fact that the majority of words that end in this way are pronounced with schwa, with no pronunciation of the –r, at least in the case of some British varieties, including RP. However, depending on the students' needs, that is, according to the situations in which they are going to use English (only with other non-native speakers, to live in an English speaking country, for economic, political, cultural, technological or professional reasons, etc.), we should also ask ourselves whether the correct pronunciation of schwa in every single syllable is absolutely necessary, or whether its (mis)pronunciation, reflecting how the corresponding word is spelled, might be tolerable given certain communicative goals. A good way of introducing students to the different pronunciation and spelling patterns in English is to use the PronSci approach to the teaching of pronunciation, a method piloted by Caleb Gattegno consisting of colourful charts or 'Fidels' that represent the different sounds and spellings of English;<sup>13</sup> b) although on certain occasions students need to listen to and repeat a word or sentence in isolation in order to focus on its correct pronunciation, constantly using this type of activity can quickly become boring and unmotivating. Fortunately, many materials are now available that can be adapted to the teaching of pronunciation at all levels of proficiency; these materials often include songs, TV, radio programmes, documentaries and series. Moreover, we now have easy access to all types of materials on the Internet, including videos, software and texts, all of which can potentially be adapted to the teaching of pronunciation to focus on both segmental and suprasegmental aspects of the phonological system; c) we should also bear in mind that although EFL textbooks used in Spain focus mainly on the teaching of RP English, there are many other native varieties of English that our students may be interested in acquiring, even other non-native varieties (for instance, English as a Lingua Franca), as long as intelligibility is a guiding principle.

To conclude, this study has shown that advanced students appear to lack sufficient practise in the production of English vowels, and thus, generally speaking, we could claim that pronunciation needs to be given greater focus in Spain, not only in university degree courses where English is the main focus of study (and thus, where many of the graduates are

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<sup>13</sup> For more information on these products and how to use them, see <http://www.pronunciationscience.com/pronsci-approach/>

themselves likely to become teachers of English), but also at earlier stages of teaching, in order to avoid the fossilisation of incorrect pronunciations due to the influence of spelling.

A general aim should be that students acquire an intelligible and broadly correct pronunciation, not exclusively a native-like one. Also, pronunciation should be given a greater role in EFL teaching in Spain at early stages of learning. In this way, it is more likely that advanced students will have overcome many of the problems seen in this study by the time they arrive at university.

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