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The ideal English pronunciation resource: non-native teachers' beliefs

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Abstract

This paper aimed to explore teachers' beliefs on the digital resources for an adequate practice of English pronunciation/phonetics. Two teacher samples were collected: preuniversity teachers (secondary education and vocational training) (PU = 51) and university teachers (UN = 76). The results showed that i) PU teachers usually employed paperbased materials from textbooks whilst UN teachers created their own materials; ii) pronunciation practice was integrated into activities devoted to practising speaking and listening skills; iii) teachers would like to employ more materials to download and specialized websites to practice phonetics; and iv) their ideal resource should be 'reusable', 'multimedial', and 'open'.

Keywords: English pronunciation; teachers' perceptions; English as a Foreign Language; tools.

Recurso ideal para pronunciación inglesa: creencias de docentes de ILE no nativos

Resumen

El principal objetivo es explorar la opinión del profesorado sobre los recursos digitales para practicar pronunciación/fonética inglesa de forma adecuada. Se recopilaron dos muestras: preuniversitario (secundaria y

formación profesional) (PU = 51) y universitario (UN = 76). Los resultados mostraron que i) los PU normalmente utilizaban más materiales en papel (libros) mientras que los UN creaban sus propios materiales; ii) la pronunciación se suele practicar en actividades de producción y comprensión orales; iii) a los dos grupos les gustaría usar más materiales para descargar y páginas especializadas para practicar fonética; y iv) las principales características que ambos grupos consideraban esenciales fueron 'reusable', 'multimedia', y 'abierto.

Palabras clave: Pronunciación inglesa; percepciones docentes; inglés como lengua extranjera; herramientas.

1. INTRODUCTION

Since the last decade of the last century, and particularly from the beginning of the 21st century, the use of emergent technology has become a must for educational activities in all stages of education (preschool, primary, secondary, vocational training, and higher education). Besides, current resources should turn up in the form of digital and online environment, given the needs of teachers, but above all, our learners today —considered digital natives (Ciliers, 2017; Prensky, 2001); but mainly due to the circumstances caused by the COVID-19 pandemic since March 2020, which imposed a shift into emergency remote teaching and learning (Borzkurt & Sharma, 2020; Hodges et al., 2020; Murphy, 2020).

When it comes to imagining the ideal resource in a specific knowledge area the difficulties and the necessities increase. In the case with which we are concerned, finding the perfect digital resource for practicing EFL, in general, and English pronunciation/phonetics, in particular, becomes an arduous and challenging task (Bai & Yuan, 2019; Gilakjani & Sabouri, 2016; Gómez González & Sánchez Roura, 2016).

Our main aim was, then, to explore the non-native teachers' perspectives regarding the use of digital resources to practice English pronunciation/phonetics taking into account the educational stage in which they teach.

2. LITERATURE REVIEW

Due to the rapid increase of online resources on education, the search for appropriate resources and materials are now perceived as essential (Baker & Murphy, 2011; Chyr et al., 2017), especially after the pandemic situation (Ali, 2020; Baker et al., 2021). However, determining the appropriate tools is not a new issue, as the evaluation of digital resources has been the focus of some studies (Churchill, 2017; Xie et al., 2018).

Mhouti et al. (2013) designed an instrument which paid special attention to the quality of four dimensions: i) adademic quality (reliable, accurate); ii) pedagogical quality (teaching monitoring and learning support, organization of the resource, its interactivity, the possibility to go back-forward or home page button, etc.); iii) didactic quality (appropriate activities and veracity of content); and iv) technical quality (design, the suitable use of the colours, the aesthetic aspect; the ease of navigation; and the inclusion of multimedia elements).

In Spain, the standardization organism (UNE) established a norm to value the quality of digital educative resources and materials: UNE 71362:2020. The norm, designed like a rubric, posits a total of 15 criteria and provides the evaluators (a teacher, a student, or a person involved in educative contexts) with a tool to score each criterion:

- Didactic description

- Quality of content

- Capacity to generate learning

- Adaptability

- Interactivity

- Motivation

- Format and design

- Reusability

- Portability

- Robustness, technical stability

- Structure of the learning scenario

- Navigation

- Operability

- Accessibility to audio-visual content
- Accessibility to text content.

Other authors proposed a checklist to evaluate the resources. The checklist of Aguayo and Ramírez (2020) focused on the quality of the technical issues of websites and how understandable the resources is to navigate for users. The two main categories are: functionality (navigation, adequacy of technology, interactivity, and accuracy of technology for the specific purpose); and usability (intelligibility, ease of use, operability, and design). In the context of languages, the checklist of Moreno and Risueño (2018) focused on nine areas in a language resource: general site information, language skills and components, educational material, multimedia use, interactivity, communication, aid tools and linguistic resources, website ergonomics, and content quality.

As far as the teaching of the sounds of English as a foreign language is concerned, many studies have focused on the research of certain tools or specific software implemented for practice in the classroom environment. Eshankulovna (2021) examined the advantages and disadvantages of using apps to practise speaking and pronunciation for successful mobile-assisted language learning (MALL) and proposed some guidelines to assess EFL software following three criteria: content and design, L2 methods, and technology. Spring and Tabuchi (2021) examined the implementation of automatic speech recognition (ASR) to help Japanese university students improve their pronunciation in EFL.

Calvo Benzies (2013) conducted a survey of undergraduates' exposure to English pronunciation, their attitude towards learning it and their preferences and difficulties concerning this area. In a later study (Calvo Benzies, 2017), she addressed the importance of digital materials for the current, more integrated approach to the teaching and learning of English pronunciation and intonation. This study analyzes three basic types of digital resources: i) software, including pronunciation training programs, programs converting text to phonetic transcription and recording

programs; ii) apps; iii) websites, blogs, social networks and the like. A valuable overview of undergraduates' opinions regarding these tools has been provided as well. However, her approach focuses on description rather than evaluation.

However, no specific studies focusing on the teachers' requirements and perceptions of the issues that a pronunciation/phonetics resource should contain have been found in the literature. Hismanoglu (2010) carried out a valuable analysis of teachers' use of online pronunciation resources, but he did not systematically assess those resources. Likewise, studies which address teachers' conceptions of the teaching of pronunciation (Bai & Yuan, 2019), teachers' motivation to change their behaviour towards implementing tools for pronunciation in the classroom (Hermans et al., 2017), or defending the effectiveness of CALL for pronunciation (Kim, 2012) do not focus on the desirable features that these resources should have.

Thus, we aim at analysing the teachers' perspectives regarding the use of digital resources to practise English pronunciation/phonetics depending on the educational stage. To accomplish this general objective, some Research Questions (RQs) were posed:

RQ1: Which are the pronunciation/phonetics resources used by EFL teachers in class in the PU and UN educational contexts?

RQ2: Are teachers' materials or resources for pronunciation practice strongly associated to certain skills?

RQ3: Which resources would EFL teachers like to employ in class?

RQ4: What do EFL teachers think a resource/tool to practise phonetics/pronunciation should be in terms of design and accessibility, reusability, and technical issues?

3. METHOD

3.1. PARTICIPANTS

A sample of 127 teachers divided into two educative contexts (preuniversity, PU, and university, UN) was collected for this study. This is a probabilistic sample in which teachers from different regions of Spain participated. PU teachers (n=51) included secondary education teachers (SE), from both compulsory and upper secondary education, and Vocational Training (VT). Only 13.73% of PU respondents were male (n=7), whilst for UN teachers this percentage increased to 39.47% (n=30). The ages of PU teachers ranged from 26 to 59 (means=41.92; standard deviation, SD=10.079), whilst the ages of UN teachers ranged from 25 to 67 (means=48.30, and SD=10.210).

As for the years of experience, the mean for PU teachers was 12.96, considering a range from 0 to 32. Nevertheless, in UN teachers, the mean of years of experience was 18.53, ranging from 1 to 37.

3.2. INSTRUMENTS

Data were collected by means of an online survey, elaborated in Google Forms, and ws designed by a group of researchers involved in the competitive national project under whose framework this study was conceived. To validate the survey, it was sent to an expert committee composed of teaching staff who were specialists in EFL from different educative stages.

The teachers' survey featured 39 questions focused on the following dimensions: 1) Socio-demographic data; 2) Academic background; 3) Attitudes towards the teaching of pronunciation/phonetics; iv) Resources to practise pronunciation/phonetics.

3.3. PROCEDURE

Both groups of teachers from the different educative stages (PU and UN) were invited to participate. The information was registered into Excel and then exported to the statistical package SPSS (v.22). The survey was available from 1st February 2021 until 31st May 2021.

On the basis of the general objective and the RQs posed before, we analysed some questions of the survey belonging to Dimension 1, Dimension 2, and Dimension 4. Questions from dimensions 1 and 2 were used to categorise the educational stages of teachers participating in the study, and to determine the age, mean, and years of experience of the participants. For dimension 4, the results section is devoted entirely to the outcomes of the data provided by the participants' responses concerning the RQs pursued in this paper. Table 1 illustrates the dimensions and questions of the present study.

Table 1. Questions (classified per dimension) of the survey

Dimension	Response Type	Scale
Dimension 1. Socio-demographic information		
1. Age	Open	Numeric
2. Gender	Closed	Single choice
Dimension 2. Academic background		
3. Academic degrees and/or postgraduate degrees	Closed	Multiple choice
4. Educative stage in which you teach EFL	Closed	Single choice
5. Indicate degree or postgraduate degrees where you teach EFL (if university stage)	Open	
6. Years of teaching experience	Open	Numeric
Dimension 4. Resources to practise phonetics/pronunciation		
25. With which skill do you include your pronunciation/phonetics practice? 32. Do you use some of the following Closed Multiple resources to practise pronunciation/phonetics? choice 35. Which kind of resources would like to have Closed Multiple to practise English pronunciation/phonetics in choice the classroom	Closed	Multiple choice
36. Indicate your degree of importance towards the following features of an ideal pronunciation/phonetics digital resource	Closed	Likert (1-5)
36.1. Reusability	Closed	Likert (1-5)

36.2. Design and accessibility	Closed	Likert (1-5)
36.3. Technical issues	Closed	Likert (1-5)

Source: Own elaboration

3.4. DATA ANALYSIS

The statistical packages used were SPSS for Windows v.23 (IBM SPSS Statistics, Chicago, IL, USA) and Microsoft Office Excel 2016 (Microsoft Corp., Redmond, WA, USA). Descriptive statistics included frequencies, mean and standard deviation.

The analysis of our study was descriptive. Student's t-distribution, a type of inferential statistics used to determine if there was a significant difference between the means of two groups, was calculated for independent samples as grouping dichotomous variable. Correlation analyses were measured with regard to the age variable: the bivariate Pearson correlation between the age and the means of each criterion (question 36 of the instrument) was calculated.

4. RESULTS

4.1. RESOURCES USED BY TEACHERS

Teachers responded to the following multiple-choice question: *Do you use some of the following resources to practise phonetics/pronunciation?* 63.16% chose the option "My own creation material" in UN teachers, compared to the 39.22% of PU who selected that option. The most frequent option by PU teachers was "Physical (or paper-based) materials from publishing

houses with which the centre collaborates" (58.82%), although the percentage dropped in the case of UN teachers (36.84%).

The least selected option by UN teachers was "Online materials from publishing houses with which the centre collaborates" (27.63%), although almost half of the PU teachers employed those materials (49.02%). On the contrary, the least selected answer in PU was "Materials from monolingual dictionaries" with 11.76%, whilst for UN teachers this option obtained a higher percentage (42.11%). The reason for this might be that UN teachers tend to teach the phonetic system and to propose more practical activities through dictionary searches.

Both PU and UN teachers marked as their second preferred option "Specialized websites", which shows the importance of this kind of resources. Figure 1 shows the resources that PU and UN teachers declared to use.
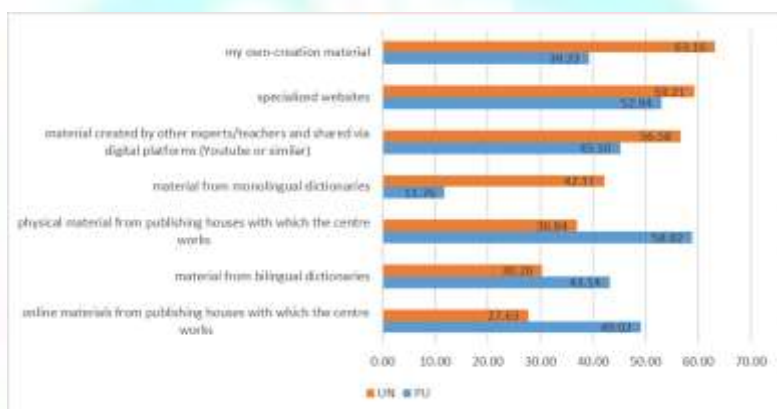
Figure 1. Resources used by PU and UN teachers according to their responses to *I use…* Source: Own elaboration

Regarding with which skills PU and UN teachers integrate their phonetics/pronunciation practice (question 25), the respondents could select more than one option. The objective was to know which skills, if any, were usually more easily integrated into phonetics/pronunciation practice. Generally, PU and UN teachers indicated that the skill with which

they most integrated the teaching of phonetics was speaking (98.04% of responses from PU and 97.37% of UN teachers). The other skill associated with orality was listening, which was often selected by

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participants of both samples of teachers (80.39% of PU and 80.26% of UN).

On the opposite side, the skill least integrated into the practice of phonetics/pronunciation was writing, with 9.8% of PU responses, and 14.47% of UN teachers. The second least selected was Use of English (grammar) in both samples of teachers (33.33% in PU and 31.58% in UN teachers). Figure 2 shows the data provided by respondents regarding the skills with which they usually integrate their pron unciation or phonetics practice.
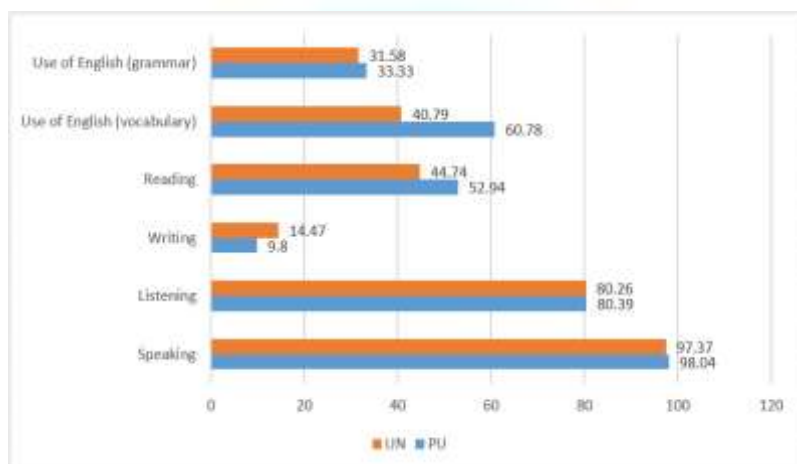
Figure 2. Skills usually integrated into pronunciation/phonetics practice by PU and UN teachers. Source: Own elaboration

4.2. RESOURCES TEACHERS WOULD LIKE TO HAVE AT THEIR DISPOSAL

The following question is intended to ascertain teacher needs as far as resources are concerned: *Which kind of resources would you like to have to practise English phonetics/pronunciation in the classroom?* Multiple answers could be selected by PU and UN teachers.

In general, more teaching needs were detected in PU teachers, since, except for the option "Some software to install on my computer", the

remaining percentage of responses in each kind of resource   is greater in PU teachers when compared to the UN teachers.

The most recurrent option of both samples coincided in "Material to download (exercises, PDF documents, etc.)" with 90.2% of PU responses and 77.63% of UN answers. The second most frequent option marked by PU and UN teachers was "Specialized website to practise phonetics" (PU = 80.39% and UN = 76.32%). The least selected option was "Material to print" in both groups.

The fact that teachers required fewer paper -based materials might be due to the fa   ct that surveys were administered after the COVID   -19 pandemic situation emerged worldwide; therefore, teachers opted for more digital resources rather than paper -based ones. Figure 3 shows all the options and the percentages of answers.
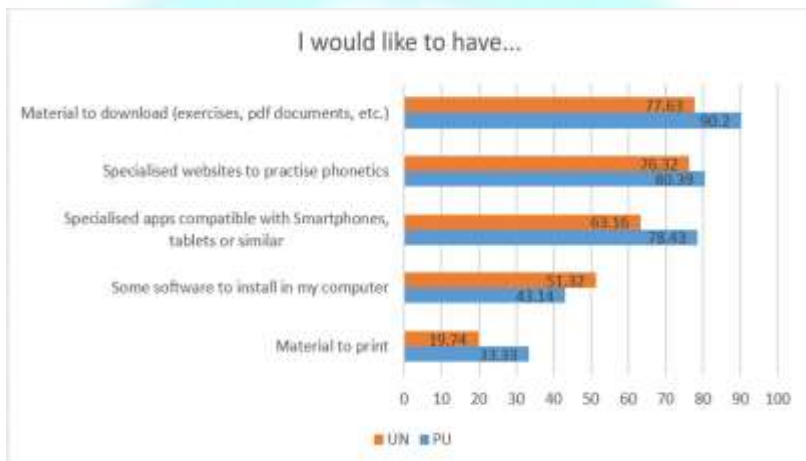
Figure 3. Responses around teaching needs (I would like to have…).
Source: Own elaboration

4.3. ESSENTIAL   FEATURES   FOR   THE   IDEAL PRONUNCIATION/PHONETICS RESOURCE

PU and UN teachers were asked about the characteristics that an ideal resource should have in order to practise pronunciation/phonetics (question 36).

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Upon the criteria, parameters and indicators observed in the literature, in our study, we proposed three main criteria with some indicators in each one:

Criterion 1. Reusability

☐ Adaptable (modifiable according to the users' needs)

☐ Flexible (attending to different contexts)

☐ Reusable (educative purposes).

Criterion 2. Design and Accessibility

☐ Accessible (used by a great number of people)

☐ Textual (text)

☐ Sound (sound)

☐ Visual (images)

☐ Audiovisual (acoustic and graphic)

☐ Multimedial (text, images, graphic and sounds)

☐ Soft colours and black font

☐ Intense colours and black or blue font.

Criterion 3. Technical Issues.

☐ Open

• Home button available

• Durable (guarantee of resource validity)

• Short URL
• Modular (interacting with other resources)

• Usable (different devices)

• Portable (different platforms)

Regarding the first criterion, **Reusability**, and its three indicators (Adaptable, Flexible, Reusable), according to the data (see Table 2), both PU and UN teachers considered extremely important (highlighted in grey in Table 2) the three of them for their ideal resource. However, PU percentages were significantly higher than UN, as UN percentages remained around half of the sample for the three indicators (PU = 58.82% 70.59%, and 76.47%; UN = 46.05%, 44.74%, and 51.32%).

Table 2. Teachers' responses towards the degree of importance of indicators included in Reusability criterion

			NI	BI	I	VI	EI	TOTAL
Adaptable	PU	N	1		7	13	30	51
		%	1.96		13.73	25.49	58.82	100
	UN	n	1	1	13	26	35	76
		%	1.32	1.32	17.11	34.21	46.05	100
Flexible	PU	n			3	12	36	51
		%			5.88	23.53	70.59	100
	UN	n	1	2	8	31	34	76
		%	1.32	2.63	10.53	40.79	44.74	100
Reusable	PU	n				4	39 76.47	51
		%				7.84		100
	UN	n	1	3	7	26	39	76
		%	1.32	3.95	9.21	34.21	51.32	100

Source: Own elaboration

Note: NI stands for Not important, BI, a bit important, I, important, VI, very important and EI, extremely important

The second criterion, **Design and accessibility**, comprises several indicators related to format, font, and how the information is provided. Both PU and UN teachers coincided in their answers, although the degree of importance differed depending on the indicator to appraise. PU and UN teachers considered that a resource must be accessible (PU =

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86.27 and UN = 69.74 for extremely important). None of the teachers selected the options not important or a bit important in this indicator.

Regarding how information should be offered in a pronunciation/phonetics resource, teachers' opinions differed. PU and UN teachers selected important the "textual" form (45.1% in PU and 27.3% in UN), "acoustic" (37.25% in PU and 27.63% in UN) or "visual" (43.14% in PU and 32.89% in UN). It is remarkable, however, how in the second option both samples differed in the importance provided to "acoustic" and "visual", this being extremely important for PU ("acoustic" = 23.53%, and "visual" = 19.61%), which contrasted with the not-important option selected by UN (23.68% for both "acoustic" and "visual"). Nevetheless, both samples considered as extremely important "audiovisual" and "multimedia", being greater in the last feature (PU=64.71% and 84.31%; UN= 43.42% and 71.05%). None of the teachers selected a bit important for both indicators, and only UN indicated, to a lesser extent, not important (just 9.21% for "audiovisual" and 2.63% for "multimedia").

Answers to the indicators related to the colours on the background and font seem to suggest that teachers gave them a similar importance. Both samples regarded the two features ("soft colours and black font"; "intense colours and black or blue font") as important (PU=33.33% for both features; UN=30.26% and 34.21%, respectively). However, in the case of UN teachers, their second option differed depending on one and another feature: the second highest percentage was found in extremely important for the first feature of colours, whilst for the second feature the percentage was equal to the other option selected by this sample of teachers, that is, 34.21% but in not-important option. Table 3 shows all the percentages for all the indicators under the Design and Accessibility criterion.

Table 3. Teachers' responses towards the degree of importance of indicators included in Design and Accessibility criterion

			NI	BI	I	VI	EI	TOTAL
Accessible	PU	n			2	5	44	51
		%			3.92		86.27	100
	UN	n			6	17	53	76
		%			7.89		69.74	100
Textual	PU	n	13	5	23	3	7	51
		%	25.49	9.8	45.1	5.88	13.73	100
			20				.5	
	UN	n		20	21	10		76
		%	26.32	26.32	27.63	13.16	6.58	100

			9	6	19	5	12	51
Acoustic	PU	n	9	6	19	5	12	51
		%	17.65	11.76	37.25	9.8	23.53	100
	UN	n	18	10	21	13	14	76
		%	23.68	13.16	27.63	17.11	18.42	100
Visual	PU	n	9	5	22	5	10	51
		%	17.65	9.8	43.14	9.8	19.61	100
	UN	n	18	11	25	12	10	76
		%	23.68	14.47	32.89	15.79	13.16	100
Audiovisual	PU	n			6	12	33	51
		%			11.76	23.53	64.71	100
	UN	n	7		10	26	33	76
		%	9.21		13.16	34.21	43.42	100
Multimedia	PU	n			2	6	43	51
		%			3.92	11.76	84.31	100
	UN	n	2		4	16	54	76
		%	2.63		5.26	21.05	71.05	100
With soft colours in the background page and black for the font	PU	n	2	7	17	10	15	51
		%	3.92	13.73	33.33	19.61	29.41	100
	UN	n	9	8	23	14	22	76
		%	11.84	10.53	30.26	18.42	28.95	100
With intense colours and black or blue for the font	PU	n	13	12	17	4	5	51
		%	25.49	23.53	33.33	7.84	9.8	100
	UN	n	26	13	26	5	6	76
		%	34.21	17.11	34.21	6.58	7.89	100

Source: Own elaboration

As for the third criterion, **Technical Issues**, and its seven indicators, PU and UN teachers agreed on considering extremely important the following ones: open; homepage button; durable; usable; and portable. The highest percentage found for extremely important in PU was for "usable" indicator (84.31%), and in UN was for "durable" (73.68%). The

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second most frequent response for this degree of importance was "open" in both samples (PU = 80.39%; UN = 72.37%), although the percentage found for "portable" in PU was exactly the same (80.39%).

The "short-URL" indicator was regarded as important (PU = 35.29%; UN = 32.89%). And, finally, in the case of "modular" both samples acted differently when considering the feature as extremely important or very important. PU teachers registered a higher percentage in extremely important (56.86%), rather than very important (23.53%). UN teachers' opinion was towards considering the indicator as important (35.53%) and extremely important (31.58%).

As observed in Table 4, PU registered greater percentages in all indicators when compared to UN percentages.

Table 4. Teachers' responses towards the degree of importance of indicators included in Technical issues criterion

			NI	BI	I	VI	EI	TOTAL
Open	PU	n	1		4		5	41	51
		%	1.96	7.84			9.8	80.39	100
	UN	n		3	18	55			76
		%		3.95	23.68	72.37			100
Homepage button	PU	n		8	7	34			51
		%		15.69	13.73	66.67			100
	UN	n		21	14	35			76
		%		27.63	18.42	46.05			100
				3	8	40			
				5.88	15.69	78.43			
				5	12	56			
			7.89	6.58	15.79	73.68			
Durable	PU	n		18	7	16			51
		%		35.29	13.73	31.37			100
	UN	n		25	16	19			76
		%	1.32						

								100
	PU	n	7.84					51
		%						100
Short URL	UN	n						76
		%					25	100
	PU	n					29	51
		%		32.89	21.05		56.86	
		n		9	12			100
Modular	UN	%		17.65	23.53		24	76
				18	27		31.58	
				23.68				100
			1.32	7.89				

Usable	PU n		5				43		51
	%		9.8		5.88		84.31		100
	UN n	2				18	48		76
	%	2.63				23.68	63.16		100
Portable	PU n		1	4		5	41		51
	%			7.84		9.8	80.39		100
		1.96							
	UN n		7	21	45				76
	%	1.32	0.21	27.63	59.21				100

Source: Own elaboration

Correlation analyses were carried out taking some variables into account. Regarding the age variable, the bivariate Pearson correlation between the age and the means of each criterion was calculated. The age is not correlated with the obtained score. However, some of the scores of some criteria are correlated.

T student for independent samples was also measured, since grouping dichotomous variable (educational stage) is categorical. Table 5 illustrates the means of every criterion according to educational stage (PU and UN). The PU teachers' sample presented higher means when compared to the other sample of teachers. As observed, the highest means were encountered in both samples of teachers in the Reusability criterion, followed by Technical issues, and finally by Design and accessibility. It is remarkable the particular case of Reusablity, since it was composed by three indicators in which the percentages for extremely important were very high.

Table 5. Criteria's means, standard deviations and standard error of the mean in both teachers' samples

CRITERIA		N	MEAN	SD	STANDARD ERROR OF THE MEAN
Reusability	PU	51	4.5752	.58530	.08196
	UN	76	4.2588	.76517	.08777
Design_accessibility	PU	51	3.6397	.61474	.08608
	UN	76	3.4030	.72445	.08310
Technical_issues	PU	51	4.4426	.52858	.07402
	UN	76	4.1898	.61385	.07041

Source: Own elaboration

First, we verified the result of Levene's test of sample variances, which showed that the level of significance of F is >.05 in all the criteria. In these cases, we do not reject null hypothesis for equality of variances and, therefore, we can assume that variances are equal and can continue with t student. The significance level of t is <.05 in the cases of the Reusability criterion (p=.014) and the Technical issue criterion (p=.018), being rejected null hypothesis of means and showing, therefore, that there exists a statistical difference between the value obtained for these criteria and the educational stage. However, for the Design and accessibility criterion, the t value is .058>.05, confirming null hypothesis of equality of means (see table 6).

Table 6. T student for grouping variable 'educational stage'

		LEVENE'S TEST OF VARIANCES QUALITY		T STUDENT FOR EQUALITY OF MEANS				
		F	Sig.	t	df	Sig. (bilateral)	Means dif.	Statistical error dif.
1. Reusability .12649 means	Equal variances assumed	3.101	.081	2.501	125	.014	.31639	
	Equal variances not assumed			2.635	122.785	.010	.31639	.12009
2. and accessibility means	Design variances assumed	1.150	.286	1.916	125	.058	.23675	.12358
	Equal variances not assumed			1.979	118.188	.050	.23675	.11965
3.	Technical Equal							

| issues means | variances assumed Equal variances | 1.609 | .207 | 2.402 | 125 | .018 | .25273 | .10521 |
| | not assumed | | | 2.474 | 117.368 | .015 | .25273 | .10216 |

Source: Own elaboration

5. DISCUSSION AND CONCLUSIONS

Benefits of using technology are unquestionable today. Besides, with the pandemic situation caused by the COVID-19 in March 2020, the implementation of digital resources in the classroom environment has become an essential part of the teaching and learning process. In the context of EFL teaching practice, and, above all, pronunciation or phonetics, teachers from different educational stages might require diverse specific resources. In our study, we wanted to explore teachers' perspectives on the use of digital resources for an appropriate practice of English pronunciation or phonetics, depending on the educational stage. We posed some RQs:

Regarding RQ1, *Which are the pronunciation/phonetics resources used by EFL teachers in class in PU and UN educational context?*, both samples of teachers gave different responses: UN teachers declared to use their own materials to a greater extent, whilst PU teachers employed physical materials from publishing houses with which their centres collaborate. This might be due to the fact that at university students usually consider activities from textbooks very repetitive, as the study carried out by Calvo Benzies (2013), in which the data from the survey to university students demonstrated negative attitudes towards pronunciation practice in EFL textbooks. Therefore, UN teachers have no option but to prepare their own materials so as to present varied practice to their students.

As for RQ2, *Are teachers' materials or resources for pronunciation practice strongly associated to certain skills?*, we observed that pronunciation practice is frequently integrated with skills related with orality, that is, speaking or listening, but not integrated equally with all linguistic skills. However, this is not line with the recommendation of Levis and Sonsaat (2016), who stated that the activities and practice presented in materials should be fully

integrted with the teaching of oter linguistic skills, according to one of the principles they proposed for pronunciation materials.

About RQ3, *What resources would EFL teachers like to employ in class?*, a great percentage of both PU and UN teachers declared "material to download: exercises, PDF documents, etc.", but also, as their second option, "specialized websites to practise phonetics", the latter being in agreement with studies defending the use of sites and technological materials to improve English pronunciation (Hermans et al., 2017; Kim, 2012; Setter, 2008).

Finally, regarding RQ4, *What do EFL teachers consider a resource/tool to practise phonetics/pronunciation should be in terms of reusability, design and accessibility, as well as technical issues?*, some indicators of the three criteria have been considered essential for an ideal resource to practise English pronunciation or phonetics.

It is remarkable how in the Reusability criterion all the indicators were considered very important with a high percentage in both samples when compared to the rest of the degrees of importance; the "reusable" indicator obtained high percentages (PU=76.47%; UN=51.32%). This is in line with studies in which the possibility to reuse resources or learning objects was stressed as a relevant issue in the e-learning context (Karatay & Hegelheimer, 2021; Klerkx et al., 2010; Littlejohn, 2003; Mohan, 2004; Tate & Hoshek, 2009).

The best valued indicators in the second criterion in both samples of teachers, Design and accessibility, were particularly found in the "accessible" (PU=86.27%; UN=69.74%) and the "multimedia" features (PU=84.31%; UN=71.05%), the latter referring to how the content is presented in an ideal resource for phonetics/pronunciation. Not very remarkable percentages were encountered in the two last indicators of the second criterion, that is, the colours of the background and font, which were just considered important; this contrasts with the relevance provided in certain studies highlighting the suitable use of the colours and the aesthetic in general of a resource (Mhouti et al., 2013 or the standard UNE 71362:2020).

As for the third criterion, Technical issues, some indicators were given more importance than others. PU teachers considered extremely important the features "usable" (84.31%), "open", and "portable" (both sharing the same percentage, that is, 80.39%). UN teachers also declared as extremely important the "open" (72.37%) and "usable" (63.16%) features. This

means that they bestow more relevance to being able to use the resource through different devices and platforms, and with no limitations in its functionalities, which is in accordance with the importance provided in the literature to the possibility to employ a resource online/offline, over smartphones, tablets, PCs, or any other platforms (Alqahtani, Kaliappen & Alqahtani, 2020; UNE 71362:2020) or totally open with no restrictions (Olgren & Ploetz, 2007; Tran, 2021). However, in UN teachers, the highest percentage was found in "durable" (73.68%) which has to do with the fact that a resource is valid and is related to the robustness proposed in the assessment criteria for resources of UNE 71362:2020.

As future prospective, it would be ideal to search for specific tools to practise EFL pronunciation/phonetics gathering the most essential features according to the point of view of teachers from different educative stages, as analysed in this paper. Besides, our further lines contemplate the creation of a genuine tool to practise EFL pronunciation/phonetics so as to meet the teachers' requirements we have explored in the surveys, and to test that tool in order to check not only teachers' but also students' satisfaction.

6. ACKNOWLEDGEMENTS

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