



Revista de lenguas para fines específicos

eISSN: 2340-8561

Journal information, indexing and abstracting details,
archives, and instructions for submissions:

<https://ojsspdc.ulpgc.es/ojs/index.php/LFE/index>

Nº 21
2015

ICT use and perceived effectiveness in an adult EFL learning context

Stephen P. Hughes – Bojana Tulimirovic

Universidad de Granada, Facultad de Ciencias de la Educación, Campus Universitario de Cartuja,
18071, Granada (Spain).

Article first published online: 27 July 2015.

Article published online with DOI added: 5 April 2016

Revista de Lenguas para fines específicos is licensed under a [Creative Commons Reconocimiento-NoComercial-SinObraDerivada 4.0 Internacional License](#).



SCROLL DOWN FOR ARTICLE

ICT use and perceived effectiveness in an adult EFL learning context

Stephen Pearse Hughes¹

Universidad de Granada

Bojana Tulimirovic

Universidad de Granada

Abstract

Information and communication technologies (ICTs) are firmly established in language learning contexts, yet there are still many questions in relation to how widely they are employed and, indeed, how useful they are in developing all aspects of communicative competence. With a cohort of four teachers and one hundred students, we examine learners' digital habits and their perceived usefulness of online computer-assisted language training in an official state-funded language school for adults. Perceptions from students were collected through an anonymous questionnaire with open and closed questions in relation to how often they used ICTs and how useful the level of usefulness of these technologies. This information was complemented by data obtained from teachers by means of a semi-structured interview. In general, teachers and students coincide in their belief that ICTs are useful for language learning, but also express difficulties in finding appropriate resources, despite (or even as a result of) the vast number of available websites and pages. Results from students point to a tendency to use ICTs mostly to improve pronunciation, listening comprehension, and reading and less for oral interaction. In addition, the frequency with which female participants use ICTs to improve oral expression, reading and grammar is significantly higher than male students. This study concludes by drawing attention to the need for training of students and teachers in ICT use and to the desirability of following a sound and shared policy in language learning contexts.

Keywords: Information and communication technologies (ICTs), English as a foreign language (EFL), English language learning, adult learners, Official Language Schools

¹ **Corresponding author** – Universidad de Granada, Facultad de Ciencias de la Educación, Campus Universitario de Cartuja, 18071, Granada (Spain).

Email: shughes@ugr.es



Resumen

Las nuevas tecnologías (TICs) se han establecido de manera sólida en contextos de aprendizaje de la lengua extranjera, sin embargo, todavía hay muchas preguntas en relación al alcance de su uso y en cuanto a su efectividad en desarrollar todos los aspectos de la competencia comunicativa. Con una muestra de cuatro docentes y cien estudiantes, examinamos los hábitos digitales y su apreciación sobre la efectividad de las TIC entre adultos de una Escuela Oficial de Idiomas. Se recogieron percepciones del alumnado mediante una encuesta anónima con preguntas abiertas y cerradas en relación con la frecuencia con la que empleaban las TICs y la utilidad de estas tecnologías. Esta información se complementaba con datos obtenidos del profesorado mediante una entrevista semi-estructurada. En términos generales, el profesorado y el alumnado coinciden en pensar que las TICs son útiles para el aprendizaje de los idiomas, pero también expresan haber tenido dificultades para encontrar recursos apropiados, a pesar de (o incluso a causa de) el gran número de sitios y páginas web disponibles. Los resultados apuntan a una tendencia a usar las TICs para mejorar la pronunciación, la comprensión oral y la lectura, y menos para la interacción oral. Además, la frecuencia con la que las mujeres emplean los TICs para mejorar la expresión oral, la lectura y la gramática es significativamente más alta que la de los hombres. Este estudio concluye subrayando la necesidad de acciones formativas para el profesorado y el alumnado y resaltando la deseabilidad de seguir una política bien fundamentada y compartida dentro del contexto de aprendizaje.

Palabras clave: Las nuevas tecnologías (TIC), inglés como lengua extranjera, aprendizaje de idiomas, estudiantes adultos, Escuelas Oficiales de Idiomas

Introduction

Information and communication technologies (ICTs) have become inseparable elements of our day-to-day exchanges in real life and, as such, it is only natural that language learning institutions should now, more than ever, provide students with opportunities to engage in meaningful communication activities with the aid of these resources. Following technological innovation in L2 education is not a new phenomenon; indeed, throughout its history, language teaching has been at the forefront of the introduction of technological aids in pursuit of enhancing diverse elements of students' communicative competence; but the advances in technology which have taken place in relation to language learning over the last 25 years have been dramatic and have had far-reaching effects both on the development of materials and on teaching practices (Dudeney & Hockly, 2012). Yet the introduction of ICTs has not been without its problems; poor infrastructures and network performance, a lack of technological skills, adequate training or teacher planning time are just some of the issues that have accompanied innovation (Pelgrum, 2001). Despite these difficulties, however, the extensive adoption of ICTs in the language classroom is a reality, and it would appear that a worthwhile endeavor would be to explore both the use and effectiveness of such technologies in a variety of contexts

and to attempt to gauge the extent to which they can fulfill language learners' subjective and objective needs.

This paper will focus on the specific area of the use of ICTs among students in an adult language learning context. Here we explore the views of teachers and students to observe how digital resources are used in order to gauge their perceived effectiveness. In addition to gaining an insight into learner habits, this study also seeks to detect possible mismatches between what language students believe is useful and what type of resources they actually employ.

Two basic variables to be considered in this study are age and gender. In dealing with age, it is true that not all students have had the same type of immersion in technological resources. Hockly (2011) provides us with a glimpse of the new generation of cybercitizens and digital youth who are often more adept in the use of technology than their parents or even their teachers; this begs the question as to the extent to which older learners are more or less adept at handling new learning resources. As far as gender is concerned, the way in which men and women use technology to communicate has been the object of several social studies including Kennedy, Wellman and Klement (2003), who find that women often use the Internet for social reasons while men tend to employ it for instrumental and recreational reasons. The influence of this variable for adult language learners, however, has not received a large amount of attention. With this in mind, we will look to compare patterns in ICT use and perceived effectiveness between male and female students and between age groups in order to ascertain preferences and to suggest potential effects on learning.

Benefits and limitations of ICTs in L2 learning

Given the widespread use of new technologies in our everyday communication, it would seem only natural for foreign language teachers to readily adopt them in an attempt to make communication more purposeful, meaningful and authentic. Today, both public and private institutions and educational administrations systematically support and even require language instructors to incorporate new technologies in the delivery and assessment of language learning. This inclusion of new technologies in the language class is supported by a large and growing number of studies that point to the potential benefits, particularly in terms of the use of internet as a resource for learning (see Evans, 2009).

Motivation and anxiety

Before discussing the ways in which using new technologies might enhance specific

skills pertaining to communicative competence, it might be useful to briefly mention the affective enabling/disabling factors of motivation and anxiety in relation to this area. Students themselves may see motivation, for instance, as one of the benefits of using technology and perceive it to be more engaging than traditional forms of teaching (Jung, 2006). This is important because motivation plays a key role in language learning and is an essential ingredient of autonomous work (Benson, 2007), which, in turn, is an integral part of CALL. Yet it would appear that few ICT-based language education studies treat motivation as an important variable and not many CALL programme evaluations take into account language learners' interests and goals (Bodnar et al., 2014). The motivational benefits arising from using technologies may exist, however, for several reasons in a number of different learning contexts. The questions of agency and self-directed learning are just two general pedagogical considerations which seem to improve motivation and student engagement (Little, 2007). At the same time, studies such as Young (2003) yield evidence to suggest that online activities have the potential to make learning more active and lower psychological barriers which impede communication.

Listening and speaking

In addition to these psychological concerns, there are a number of key issues related to the improvement of communicative competence. It would appear that one of the biggest areas for language development is that of listening. The access to a great variety of online audio and audiovisual material represents an enormous source of authentic oral texts, and several studies highlight the benefits of directed listening activities using the Internet. Kavaliauskienė (2008), for example, examines the role of podcasts and suggests they may be motivating for students, offer additional exposure to the language inside and outside, and help them to explore educational content. Listening to authentic native speakers, however, is challenging, and may be beyond the current aural proficiency level of listeners. It would appear that this could be helped with resources which are judiciously selected by teachers, by the fact that students are able to have a degree of control over the number of times text extracts may be repeated, and, as shown in McBride's (2011) study, by controlling the actual speed and pausing of the text. In addition to having control over oral texts, it would appear useful to present them in learning contexts which help reduce negative effects of anxiety (Kessler, 2010). Investigations into oral interaction using new technologies are somewhat more scarce than those studies which deal with listening comprehension, and results are mixed. Conversely, Vetter and Chanier's (2006) study, for example, suggests that online speaking environments may enable speakers, including false-beginners, to reach a satisfactory level of oral proficiency in a short space of time. Yang, Gamble and Tang (2013) found that students who

received training and were engaged in structured dialogues online improved their oral proficiency and motivation. There is also evidence that motivation may be improved while engaged in real communicative tasks with speakers of the target language (Deutschmann et al., 2009; Jauregi et al., 2012). At the same time, however, there are also reports that collaborative interaction with native speakers may also cause anxiety (Lee, 2004; Deutschmann et al., 2009). More recent developments in terms of speaking include interactive programmes with speech recognition technology which allow students to hold conversations with virtual speakers; Morton and Jack (2010) report on the positive effects on performance and motivation of one such programme. Yet much more research would appear to be needed in order to make a fuller appraisal of online synchronous speaking activities both with real and virtual participants. In contrast, however, the benefits of pronunciation training using speech recognition are more evident. Indeed, computer software targeting pronunciation has been shown to improve general pronunciation (Al-Qudah, 2012), word stress patterns (Hismanoglu, 2012) and accent reduction (Seferolu, 2005).

Reading and writing

Like the receptive skill of listening, reading is an area for which online activities have been developed considerably. In western society, online reading in its many forms has become part of everyday life, whether it is for consultation or entertainment purposes or for synchronous and asynchronous forms of communication. It is not surprising, then, that new technologies have been particularly welcomed as a means to improve reading comprehension and language acquisition. Huang (2013), for example reports on the potential benefits of online readers in terms of increasing student motivation and encouraging better reading habits. Student performance in using technology for reading may not vary significantly from more traditional forms of reading, but perceptions regarding the learning environment seem to favour a CALL-based approach (Lim & Shen, 2006). Additional advantages include the fact that students can use extra reference materials and both students and teachers can access a wide range of sources (Yunus et al., 2013). Reading texts may also serve as models and as a stimulus for student writing; the use of blogs, for example, is one case which is seen as a useful and motivating tool for both reading and writing (Arslan & Sahin-Kizil, 2010; Hourigan & Murray, 2010; Yunus et al. 2013). Similarly, the adoption of collaborative platforms, such as wikis have also yielded positive results in terms of student satisfaction and task completion (Chao & Lo, 2011). Other common online reading and writing tasks, such as emails are seen to have positive effects on student performance, although, as one would expect, effective teacher monitoring and feedback are recommended to ensure communicative goals are met (Shang, 2007).

Use of language

In terms of use of language, this is one of the areas which is particularly developed using ICTs, particularly among students who use new technologies less frequently (Bueno & López, 2014). A number of studies indicate that online vocabulary activities and games may make potentially boring language work not only more interesting, but more effective (Yip & Kwan, 2006). Similarly, computer-mediated research related to performance in grammar (e.g. Razagifard & Razzaghifard, 2011) have also provided positive results, although here too, importance is given to feedback provided by teachers as well as the need for the provision of communicative contexts. It should also be said that language development is by no means limited to computers or tablets; Smith and Wang (2013) for example, find benefits in mobile phone assisted learning for practising reading and grammar.

Culture

A common aspect of online L2 learning which permeates all skill areas is that of culture; this can be seen in terms of cultural input, mediation and interaction. Using online sources of information, students are able to improve their knowledge of the target culture, discover behaviours and beliefs as well as interact and negotiate with texts and speakers from the target culture (Liaw, 2006). At the same time, the use of virtual environments may help students to develop positive attitudes towards the L2 culture (Shih, 2013).

Opportunities and challenges

New technologies, particularly websites and tools available online, offer important sources of meaningful input, they can help students to process the language and negotiate meaning and give them the opportunity to produce meaningful output. In addition, students can integrate language skills in a purposeful way and at the same time enhance their cultural competence. It is true that much research is still to be conducted and this is particularly true for the development of oral production. It is also the case that guidance and the use of structured activities from teachers are seen as instructional strategies which improve student performance; but there are still a number of teachers and institutions that have major reservations about integrating this technology in the class (Cowie & Sakui, 2013). As Gallego (2011) indicates, the implementation of technology in educational systems means not only the installation of computers and electronic infrastructure, but also rethinking and recreating the curriculum, time and space and the roles of teachers and students. At the same time, it is necessary to ensure that materials are not too demanding, that

students are involved and have proper incentives and that there is a safe environment and respect for privacy (Smith & Wang, 2013). There are undoubtedly, then, a number of challenges present in the introduction of ICTs in the language class, but it would seem that new technologies have an enormous potential for language learning and acquisition. The present study will examine how this potential is exploited in a specific adult language learning context.

The present study

The increasingly widespread adoption of ICTs, with its benefits and challenges, and, indeed, constant developments, means that there is a need to constantly monitor and assess how it is employed and how useful it is in the language learning process. It could be argued that this is particularly true in learning contexts which have a comparatively short tradition of using new technologies in the class.

At the moment of writing, there is very little, if any, recent, rigorous and context-specific research into the use of ICTs in Official Language Schools (Escuela Oficial de Idiomas) in Spain. This lack of research is evidenced, for example in the ERIC database, in which, at the time of writing, there are no available articles for the keywords 'ICT' or 'TIC' in conjunction with 'Escuela Oficial de Idiomas'.

There are currently 315 Official Language Schools in Spanish territory (MECD, 2014) catering for students who wish to learn on a voluntary basis; in addition, it is often the case that these schools provide specific training for bilingual teachers from non-language subject areas (history, biology, etc.). Given the large number of students who use these public facilities and the fact that they may also cater for bilingual teachers working in primary and secondary education, it would appear useful to begin to examine how ICTs are employed by students and how useful they are proving to be. This study aims to begin to address the above-mentioned questions by providing data obtained from teachers and students in an Official Language School in the province of Granada, southern Spain.

Methodology

In the previous sections, it has been established that ICTs form an important part of the present and future of language learning. The main aim of this study is to explore how ICTs are actually used among adults in a language learning context, and to measure the perceived effectiveness of technological resources employed. As previously mentioned, the context of the study is a public Official Language School in the province of Granada, which is accountable at a regional level to the public educational administration of the Autonomous Community of Andalusia. It should

be mentioned that attendance is voluntary, the social and educational backgrounds of students are varied and the reasons for enrolling are numerous. An important number of students are teachers who work in bilingual schools.

Instruments

In order to examine users' digital habits and perceived effectiveness of ICT resources, we used two instruments: a questionnaire for students and a semi-structured interview for teachers from the English Department. Following from Auerbach and Silverstein (2003), it was decided that a dual approach with closed numerical values and open-ended questions would be more useful than a Likert-scale questionnaire alone. The intention here was to use qualitative responses in order to provide a better understanding of the reasons behind the scores assigned by participants in closed questions.

The questionnaire, which was developed by two researchers from the University of Granada and piloted with three adult students of English from the Official Language School, had four main parts (translated questions from the survey appear in Appendix A):

- 1) General data section (gender, age, level of studies, year of enrolment);
- 2) Questions with a five-point Likert scale about the frequency of use of ICTs for developing and practicing different skills and competences;
- 3) Questions with a five-point Likert scale about the their opinions on the usefulness of ICTs and whether these technologies help them improve the skills and competences;
- 4) Two open questions about what technological tools they use and for what skill/competence in concrete and whether they have difficulties when they look for a certain tool (for a specific skill/competence).

This information was to be complemented with a semi-structured interview with teachers who worked with the above-mentioned groups (Appendix B). This interview addressed the matter of usefulness of ICTs in the language learning context in question, teacher preferences for certain activity types, and difficulties which they had experienced in using ICTS.

Participants

A total of 67 female students, 32 male students and one participant who did not specify gender participated in the survey (Table 1). The average age was 37.8; the youngest participant was 20 years old and the oldest was 60 and students studied

between the levels of A1-C1. In addition to learners from general language groups, a specific group of adults who participated in a language training programme for state-school teachers (*Curso de Actualización Lingüística*, or CAL) were also included. The curriculum for the latter group, while aimed at a B1 level, was specifically tailored to teaching professionals. In all of the groups, with the exception of level A1, classes were conducted face-to-face. Level A1, however, involved blended learning, whereby students worked mostly on an autonomous basis with weekly support from the teacher.

Group N°	1	2	3	4	5	6	7	8
Level	A1	A2	B1 CAL	B1	B2	B2	B2+	C1
Part.	14	15	12	11	11	17	11	9
Total	100 (67 female, 32 male, 1 unspecified)							

Table 1. Distribution of Participating Students

In addition to the students, four teachers participated in the study. These teachers (henceforth T1-T4) taught at different levels, in groups of up to 17 students and in different formats (Table 2).

Teacher	Level	Experience (years)
T1	A1	23
	B2	
T2	A1	32
	A2	
T3	B2	23
T4	B1	15
	B2	

Table 2. Levels taught and teacher experience in years.

Data collection procedures

After piloting the questionnaires, data were collected from students during the month of April, 2014. The administration of the questionnaire took place with eight groups of English language students within one session of normal class time. Age categories were created for participants (20-30, 31-40, 41-50 and 51-60) in order to determine, at a later stage, whether there might be any significant differences when comparing the responses of one age group with another.

Numeric responses were entered into a database using the SPSS statistical package (version 20) and calculations were made for the Cronbach Alpha, to check internal consistency. In addition, the mean score and standard deviation were calculated and an ANOVA was conducted in order to see if there were any significant differences between responses among male and female participants. The written responses of the students were read by two researchers and those answers which reinforced or highlighted specific questions were transcribed along with any new information that was considered to be of relevance in terms of the use or perceived usefulness of ICTs. The semi-structured interviews were recorded and analysed by two researchers, who extracted the central parts of each response and summarised them.

Results

This section will present the data collected in our research in two main areas: student questionnaire results and teacher interviews. The first of these areas is divided into two sections: quantitative and qualitative data analysis.

Student questionnaires: quantitative data

The first statistical procedure employed to analyse the data in the quantitative part of the student questionnaire was the calculation of the Cronbach Alpha. The score obtained for the first set of 10 questions was $\alpha=0.89$, and the score for the second set of 11 questions was $\alpha=0.93$, which indicates that the internal reliability of both sets of responses was relatively high.

	N	Min	Mx	Mean	SD
Listening comprehension	100	2	5	3.71	.84
Oral expression	99	1	5	3.07	1.17
Oral interaction	98	1	5	2.58	1.09
Reading comprehension	98	1	5	3.40	1.01
Written expression	99	1	5	3.28	1.20
Written interaction	98	1	5	3.36	1.14
Lexical competence	98	1	5	3.39	1.06
Grammatical competence	96	1	5	3.24	1.03
Cultural competence	97	1	5	3.05	1.08
Pronunciation	100	1	5	3.76	.96
Valid	89				

Table 3. Frequency of Use of ICT

The next procedure was to calculate the mean score and standard deviation of the

frequency of use of ICTs (Table 3, above) and student perceptions of the usefulness of ICTs for specific skills and competences (Table3).

The results reveal that students in this study use ICTs mostly in order to improve pronunciation (3.76) and listening comprehension (3.71), although reading comprehension is also relatively frequent (3.40). The areas which are practised less frequently are cultural competence (3.05) and oral interaction (2.58).

	N	Min.	Max.	Mean	SD
ICTs help language learning	100	3	5	4.54	.63
ICTs help listening comprehension	99	3	5	4.39	.77
ICTs help oral expression	98	2	5	3.99	.91
ICTs help oral interaction	100	1	5	3.53	1.09
ICTs help reading comprehension	100	1	5	3.95	.89
ICTs help written expression	100	1	5	3.91	1.02
ICTs help written interaction	100	1	5	3.88	1.01
ICTs help lexical competence	99	1	5	3.88	.96
ICTs help grammatical competence	99	1	5	3.83	.99
ICTs help cultural competence	99	1	5	4.02	.90
ICTs help pronunciation	100	2	5	4.24	.91
Valid	94				

Table 4. Perceived usefulness of ICTs in specific skills and competences.

In the second group of questions, which deal with the usefulness of ICTs (e. g. ICTs help me improve my listening skills), a similar situation occurs. The first item in this section of the questionnaire (ICTs help language learning) received the highest score (mean=4.54); relatively high scores were also provided for the usefulness of ICTs for listening (mean=4.39) and for pronunciation (4.24). In contrast, students provided lower scores for the usefulness of ICTs for oral interaction (mean=3.53) and for lexical and grammatical competence (mean=3.88 and 3.83 respectively).

Figure 1 provides a graphic comparison of these two sets of results (frequency of use and usefulness). In all cases the values that represent the usefulness (presented in the second column) are higher than the ones who show the frequency of use; this

is especially noticeable in three items: oral expression, oral interaction and cultural competence.

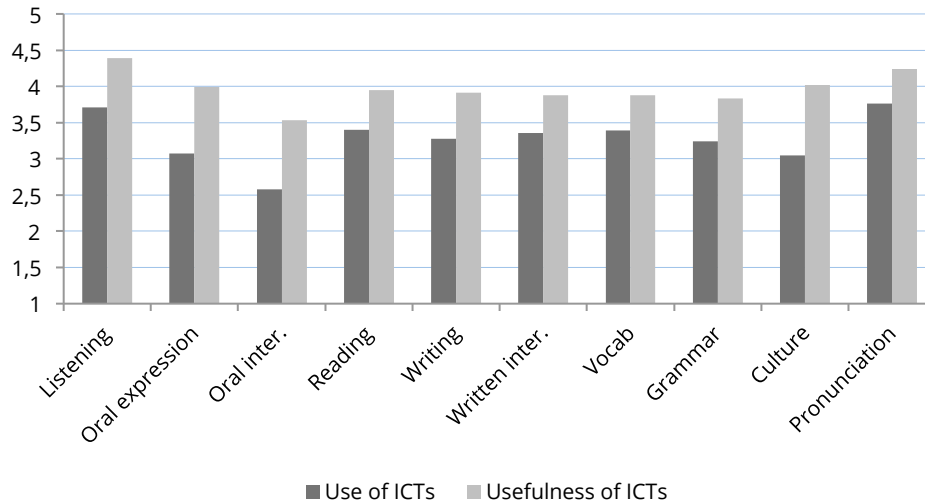


Figure 1. Usage and perceived usefulness of ICTs for language skills.

Regarding gender (Table 5), we noticed that there are some differences between men and women particularly in the frequency of using ICTs for reading (mean=3.09 vs. 3.54 for male and female participants respectively), grammar practice (mean=2.91 vs. 3.40) and oral expression (mean=2.69 vs. 3.05).

Sex	List	Or Exp	Or Int.	Read	Writ exp.	Writ int.	Lex.	Gra.	Cult.	Pron
M Mn	3.53	2.69	2.32	3.09	3.03	3.22	3.17	2.91	2.94	3.53
N	32	32	31	32	32	32	30	32	31	32
SD.	.80	1.03	.945	1.12	1.28	1.18	1.21	1.15	.96	.98
F Mn	3.79	3.23	2.70	3.54	3.39	3.42	3.48	3.40	3.09	3.88
N	67	66	66	65	66	65	67	63	65	67
SD	.86	1.19	1.15	.94	1.15	1.13	.99	.94	1.14	.93
T Mn	3.71	3.05	2.58	3.39	3.28	3.35	3.38	3.23	3.04	3.77
N	99	98	97	97	98	97	97	95	96	99
SD	.89	1.16	1.10	1.07	1.20	1.15	1.07	1.04	1.09	.96

Table 5. Differences in use of ICTs by male and female students.

The different responses between male and female participants were analysed by means of an ANOVA (Appendix C). Table 6 shows the *p*-Value of these three specific areas (frequency of use of ICTs for oral expression, reading and grammar), which showed statistically significant differences (sig. < 0.05).

		Sum of Squares	df	Mean Square	F	Sig.
Oral exp.	Between Groups	6.279	1	6.279	4.843	.030
	Within Groups	124.466	96	1.297		
	Total	130.745	97			
	Total	115.670	96			
Read	Between Groups	4.241	1	4.241	4.247	.042
	Within Groups	94.873	95	.999		
	Total	99.113	96			
	Total	108.887	96			
Gram. comp.	Between Groups	5.107	1	5.107	4.958	.028
	Within Groups	95.798	93	1.030		
	Total	100.905	94			

Table 6. ANOVA for frequency of ICT use for male and female participants.

In terms of overall usefulness for language learning, both male and female participants attribute relatively high scores (mean score for males=4.44 vs. females=4.58). Differences in specific skills (Table 7), however, coincide to a certain extent with the previously reported use of ICTs. Here, male participants attribute significantly lower degrees of usefulness than women to oral expression (3.61 vs. 4.15), oral interaction (3.19 vs. 3.69) and grammar (3.47 vs. 4.00) (sig. < 0.05 as seen in Appendix C).

Sex	List	Or Exp	Or Int.	Read	Writ exp.	Writ int.	Lex.	Gra.	Cult.	Pron	
M	M	4.28	3.61	3.19	3.69	3.66	3.66	3.72	3.47	4.00	4.03
	N	32	31	32	32	32	32	32	32	32	32
	SD	.77	.96	1.12	1.00	1.21	1.10	1.17	1.14	.84	.93
F	M	4.44	4.15	3.69	4.06	4.01	3.97	3.94	4.00	4.03	4.34
	N	66	66	67	67	67	67	66	66	66	67
	SD	.77	.85	1.05	.81	.90	.95	.84	.88	.94	.90
T	M	4.39	3.98	3.53	3.94	3.90	3.87	3.87	3.83	4.02	4.24
	N	98	97	99	99	99	99	98	98	98	99
	SD	.77	.91	1.09	.89	1.02	1.01	.96	1.00	.91	.92

Table 7. Perceived usefulness of ICTs by male and female students.

In relation to the variable of age, the results show that, contrary to what might be expected, there were no statistically significant differences use or perceptions of usefulness between older and younger participants. Similarly, as seen in Table 8 below, students of all ages from the inquiry used ICTs with relatively similar levels of frequency.

It should be stated, however, that contrary to what might have been expected, older students, (groups from 41 to 50 and from 51 to 60) expressed that they used ICTs more than the other two groups (from 20 to 30 and from 31 to 40).

Age		List	Or Exp	Or Int.	Rea d	Writ exp.	Writ int.	Lex.	Gra.	Cult.	Pron
20 - 30	Mn	3.41	3.29	2.76	3.31	3.35	3.24	3.31	3.29	2.88	3.82
	N	17	17	17	16	17	17	16	17	17	17
	SD	1.00	1.10	1.09	.95	1.17	1.25	1.08	.85	.99	1.07
31- 40	Mn	3.80	2.98	2.44	3.29	3.24	3.33	3.41	3.10	3.06	3.73
	N	51	51	50	51	51	51	51	50	49	51
	SD	.85	1.23	1.15	1.10	1.23	1.16	1.13	1.02	1.13	.94
41- 50	Mn	3.76	3.35	2.65	3.65	3.53	3.33	3.50	3.60	3.13	3.59
	N	17	17	17	17	17	15	16	15	16	17
	SD	.66	1.06	1.00	1.06	1.13	1.23	1.10	1.12	1.26	1.06
51- 60	Mn	3.50	2.67	2.78	3.56	3.00	3.50	3.50	3.44	3.20	3.90
	N	10	9	9	9	9	10	10	9	10	10
	SD	.85	1.00	.83	.73	1.23	.97	.707	1.24	.92	.74
T	Mn	3.69	3.07	2.57	3.39	3.29	3.33	3.42	3.25	3.05	3.74
	N	95	94	93	93	94	93	93	91	92	95
	SD	.85	1.16	1.08	1.03	1.19	1.16	1.07	1.03	1.10	.96

Table 8. Use of ICTs by Age.

Student questionnaires: qualitative data

In the responses to the two open-ended questions (related to tools used and difficulties experienced) it should be stated that there were different types of answers provided by participants: some were more concrete, some of them were one-word answers, and some answers were more descriptive. Several opinions and observations were repeated throughout the groups and the most frequent or salient of these points are presented in Table 9. Students from all groups tended to agree that while a wide variety of materials were available online, it was often difficult find or choose the most appropriate resources. In general terms, responses from students from more advanced levels indicated more familiarity with specific websites for specific skills. Additionally, these students were more likely to use more authentic materials, such as online television, news services and oral interaction programmes, such as Skype.

Students from all groups indicated that the choice available online was often overwhelming or confusing and students from a number of groups found it difficult to locate skill-specific webpages which were appropriate to their current level of learning. Additionally, learners from one group suggested that students should be provided with recommended sites from the school.

Websites, tools employed								
	A 1	A 2	B 1 C L	B 1	B 2	B 2	B 2 +	C 1
Dictionaries and/or translators	X	X	X	X	X	X	X	X
Common pages (youtube, google)	X	X	X	X	X	X	X	X
Websites for use of language practice	X	X	X	X	X	X	X	X
Schools website / teachers blog			X	X		X	X	
Video games			X					
Podcasts	X		X		X	X	X	X
Online series / films		X	X	X	X	X	X	X
Specifically mentioned websites for English learning (e.g. bbc.co.uk)		X	X	X	X	X	X	X
Specific websites for specific skills				X	X	X	X	X
News / information services			X			X	X	X
Skype					X		X	X
Sufficiency of materials / difficulties found								
	A 1	A 2	B 1- C L	B 1	B 2	B 2	B 2 +	C 1
Lack of experience / knowledge	X	X						
Difficulties finding platforms/sites for listening at appropriate level	X	X					X	
There are many/sufficient materials	X	X	X	X	X	X	X	X
There are too many resources to choose from	X	X	X	X	X	X	X	X
Difficulties finding platforms/sites for speaking	X		X	X			X	X
Difficulties finding platforms/sites for writing			X					
Difficulties finding resources for pronunciation				X				
Difficulties finding resources for culture		X						X
Lack of good quality sites/tools			X	X	X	X	X	X
Lack recommended resources from school							X	
Lack of transcripts for listening							X	
Difficulties finding resources for specific lexical areas								X
Sites are often not organised by level								X

Table 8. Summary of students' written responses

Teacher interviews

A summary of the most salient points indicated by teachers is provided in Table 9. All teachers expressed, to varying degrees, that they found ICTs useful; they also coincided, however, in stating that there many resources were available and that it was often difficult to select appropriate sites or activities. The selection of materials was seen as possible (teacher 3), but time-consuming (teacher 1) and activities required teacher support (teacher 4).

It is perhaps important to point out that the oldest and most experienced teacher held a more negative view of Internet activities. This participant preferred to use more traditional classroom materials and employed computers sporadically for linguistic, rather than communicative activities. It should also be stated that there is a certain level of mismatch between what some teachers actually said they do in class and the level of ICT use reported by students from their class:

<p>Teacher 1 (female - 23 years experience) ICTs are positive light and used on a daily basis in class except for written production and expression Frequently employed resources are laptop, projector and Internet Different webpages and resource types are employed, including podcasts and videos The choice of resources is overwhelming and it is difficult to gage appropriateness of levels in webpages and in specific online activities The role of the teacher is of great importance but the organisation and selection of appropriate sites requires substantial teacher time</p>
<p>Teacher 2 (female - 32 years experience) ICTs limited in her class to audios from coursebook and occasional grammar activities from Internet. There is too much choice on the Internet and that it is difficult to find appropriate activities, so much so that using it is often a 'waste of time', although it can be useful in general terms.</p>
<p>Teacher 3 (male - 23 years experience) ICTs regularly form part of teaching although they are not the most important thing in language instruction and that they should be used without letting them ruin the 'soul' of the class Projects are organised employing ICTs (e.g. to make videos); uses podcasts and webpages are also used, particularly to exploit authentic oral and written texts Elderly students in the class find using ICTs more difficult, but often overcome these difficulties The amount of resources available is often overwhelming, but these resources can be "explored" and used properly The most important aspect of teaching is feeling passionate about it, regardless as to whether or not you use ICTs</p>
<p>Teacher 4 (female - 15 years experience) While teaching all language skills, ICTs are not employed for all of them; sometimes it is preferable to use activities from the coursebook rather than Internet. Recommendations are made for certain sites, but this is not checked Several learning websites are regularly used inside and outside class (e.g. bbc.co.uk) and platforms (e.g. edmodo); the latter is employed to communicate with students, to upload grades and recordings from examinations Sometimes you can 'get lost' with the amount of resources available and that teacher support is vital for guiding and motivating students</p>

Table 9. Summary of teacher interviews.

Discussion

Usefulness vs. use

In this study, both teachers and students view ICTs in a positive light and this tends to fall in line with studies both in general education and L2 teaching and learning (see Evans, 2007). However, we notice that the perceived level of usefulness that students attribute to these ICTs is not followed by more frequent use of them.

Of all the skills, those which are least frequently practiced are oral interaction and oral expression. Similar findings were obtained by Bueno and Lopez (2014), particularly among students who used ICTs less frequently; in their study, grammar, vocabulary and receptive skills were more common than the use of productive activities. This leads us to ask whether this is due to a lack of availability of tools and resources to practise speaking or whether there is still a tendency to focus on isolated language practice.

Gender differences

In terms of gender differences, this study indicates that females use ICTs more often and perceive higher levels of usefulness of ICTs for every item in both quantitative sections of the questionnaire. In contrast to Kennedy, Wellman and Klement (2003), who find that women often use the Internet for social reasons while men tend to employ it for instrumental and recreational reasons, this study finds women using ICTs consistently more all-round. In addition, female participants used ICTs significantly more not only to develop oral competence, but also reading and grammar. The question which arises here is whether the women in the study were more motivated towards language learning in general and thus, were more likely to use ICTs, or if it might indicate a shift in trends in terms of ICT use at a more general level.

Age differences

With the variable of age, we have noticed no significant differences between elderly and younger students, but, surprisingly, more mature students report that they use ICTs more frequently than younger groups. Initially, this finding tends might seem to go against Hockly's (2011) depiction of the adept digital youth who as compared to the older users who might struggle more with ICTs. However, the question arises in this study as to whether older students might be more conscious of the need to use ICTs or if they are compensating for the fact that they are not 'digital natives' and

might need more time and practice.

Emerging data from teacher responses

In the case of teacher observations, the majority of teachers state that they use ICTs on a regular basis, although not for all of the key skills. It has been noticed, however, that there are no common visions or policies for the use of ICTs in language learning. This suggests a lack of a systematically implemented strategy for ICT-based teaching of language skills and competences. The lack of policy is evidenced by the fact that teachers and students have difficulties in finding appropriate ICT-based tools or materials. The creation of shared departmental policies has been identified as an effective way to increase student performance in general education (Harris, 2014) and as a quality indicator in L2 instruction (Hughes, 2007), and schools are increasingly being encouraged to have ICT policies in place (see Vanerlinde, Dexter & van Braak, 2012). It might be argued, then, that the introduction of such a policy could enable students to identify suitable resources and use the time invested in ICTs in a more productive way.

Conclusions

This study gives a picture of the actual use and usefulness of ICTs provided by teachers and students in a specific learning context. As such, there are a number of limitations to this investigation which mean that results cannot be directly extrapolated to other learning scenarios. The sample of students surveyed, while sizable, was non-probabilistic and there was a small number of teacher interviews. Nevertheless, it is possible that the results can shed some light on a number of problems which may exist for interested parties in similar circumstances when employing ICTs.

As previously discussed, several studies have shown the perceived usefulness of ICTs in L2 training, and in the present research participants also tend to agree on a number of benefits. However, in this particular case, it has been observed that the perceived level of usefulness of ICTs by students does not necessarily translate into a high frequency of usage. Similarly, teacher statements on the use of ICTs in class does not always correspond to students' perceptions. While mismatches exist between students' own opinions on ICT usefulness and their actual usage, and in terms of frequency of use as seen in the sometimes differing views provided by teachers and students, this study also indicates that there are some significant differences in the reasons for which male and female students engage with ICTs and the frequency with which they use them. As previously indicated, self-reporting on

the use of ICTS in this study provided significantly higher scores for women than for men in oral expression and interaction, reading and grammatical competence. The specific reasons behind this are not clear, but it could be suggested that higher levels of engagement might subsequently improve performance in these skills. What is clear is that despite the wide range of resources available for students, not all skills are equally developed by users, and certain activities to practise these skills (e.g. reading, use of language) are more readily available than others (e.g. speaking and oral interaction) particularly at lower levels of proficiency. At the same time, when using ICTs, some teachers and students tend to focus almost exclusively on use of isolated language activities rather than on more communicative tasks. This would appear to go against the grain of contemporary teaching approaches and arguably represents a missed opportunity for language learners. In addition to this, one of the major problems detected in this study is that both teachers and students may be at a loss to find activities which are appropriate to the learners' current language level, or that the sites that they find are incomplete or lacking in quality. This would suggest that there is a need for students to be provided with more specific and level-appropriate recommendations as well as pedagogically sound guidance from instructors on a systematic basis. However, teachers in this study did not appear to share a common methodological training background or to be working from a set of departmental guidelines or policies. This inevitably leads to variability in practices, not all of which may be pedagogically sound or systematically implemented for all students. Ultimately, this may represent a particularly important finding. While the study deals with an individual school department, it would not be unreasonable to suggest that there may well be many other learning contexts which lack effective ICT policies and strategies. In terms of future research, in addition to widening the scope and generalizability of this type of study, it might be useful to examine classroom practices directly in order to gauge frequency of activity types and the effects that this may have on performance. It would also be useful to compile a series of best practices for the training of both teachers and students and to find ways in which to help departments establish specific policies around ICT use. The provision of such training recommendations and support for the creation of shared, sound and implemented policies which include level-appropriate resources and activities, could lead to less confusion for students and teachers and help them to target specific skills in a more effective and efficient manner.

LFE About the authors

Stephen Hughes, PhD, is a researcher and teacher in language education at the University of Granada. His research interests include Quality Management in

language teaching and learning, Content and Language Integrated Learning and English for Academic Purposes. He has participated in several national and international projects including the ECML QualiTraining project, and is currently investigating quality in bilingual education in Spain.

Bojana Tulimirovic graduated in Spanish Philology at the University of Belgrade and completed her Masters in Education at the University of Granada. Bojana is currently completing her doctoral studies in Language, Texts and Contexts at the University of Granada. Her main areas of research interest are in phraseology in Spanish and English.

LFE Article history

Paper received: 21th January 2015

Paper received in revised form and accepted for publication: 27th March 2015

References

- Al-Qudah, F. (2012). Improving English pronunciation through computer-assisted programs in Jordanian universities. *Journal of College Teaching & Learning*, 9(3), 201–207.
- Arslan, R.S. & Şahin-Kizil, K. (2010). How can the use of blog software facilitate the writing process of English language learners? *Computer Assisted Language Learning*, 23(3), 183–197. <http://dx.doi.org/10.1080/09588221.2010.486575>.
- Auerbach, C. F., & Silverstein, L. B. (2003). *Qualitative data: an introduction to coding and analysis*. New York: New York University Press.
- Benson, P. (2007). Autonomy in language teaching and learning. *Language Teaching*, 40(1), 21–40. <http://dx.doi.org/10.1017/S0261444806003958>.
- Bodnar, S., Cucchiarini, C., Strik, H., & van Hout, R. (2014). Evaluating the motivational impact of CALL systems: current practices and future directions. *Computer Assisted Language Learning*. <http://dx.doi.org/10.1080/09588221.2014.927365>.
- Bueno, M.C. & López, M.V. (2014). Evaluation of a blended language language course: Students' perceptions of appropriateness for the development of skills and language areas. *Computer Assisted Language Learning*, 27(6) 509–527. <http://dx.doi.org/10.1080/09588221.2013.770037>
- Chao, Y. & Lo' H. (2011). Students' perceptions of Wiki-based collaborative writing for learners

- of English as a foreign language. *Interactive Learning Environments*, 19(4), 395-411. <http://dx.doi.org/10.1080/10494820903298662>.
- Chen, C. E., Cheng, W. E. (2008). Beyond the design of automated writing evaluation: pedagogical practices and perceived learning effectiveness in EFL writing classes. *Language Learning & Technology*, 12(2), 94-112.
- Cowie, N., Sakui, K. (2013): It's never too late. *ELT Journal*, 67(4), 459-467. <http://dx.doi.org/10.1093/elt/cct037>.
- Deutschmann, M., Panichi, L., & Molka-Danielsen, J (2009). Designing oral participation in Second Life - a comparative study of two language proficiency courses. *ReCALL*, 22(2), 206-226. <http://dx.doi.org/10.1017/S0958344009000196>.
- Dudney, G., Hockly, N. (2012). ICT in ELT: how did we get here and where are we going? *ELT Journal*, 66(4), 533-542. <http://dx.doi.org/10.1093/elt/ccs050>.
- Evans, M. (2009). Digital technology and language learning: a review of policy and research evidence. In M. Evans (ed.) *Foreign language learning with digital technology* (pp. 7-31). London: Continuum.
- Gallego, M. J. (2011). La integración de las tecnologías de la información y la comunicación en los centros educativos. In M. Cebrián de la Serna, & M. J. Gallego (Coords), *Procesos educativos con TIC en la sociedad del conocimiento* (pp. 33-43). Madrid: Ediciones Pirámide.
- Harris, A. Allsop, A, & Sparks, N. (2013). *Leading the improving department: A handbook of staff activities*. New York: Routledge.
- Hismanoglu, H. (2012). An investigation of pronunciation learning strategies of Advanced EFL learners. *Hacettepe University Journal of Education*, 43, 246-257.
- Hockly, N. (2011). The digital generation. In *ELT Journal*, 65(3), 322-325. <http://dx.doi.org/10.1093/elt/ccr041>.
- Hourigan, T. & Murray, L. (2010). Using blogs to help language students to develop reflective learning strategies: Towards a pedagogical framework. *Australasian Journal of Educational Technology*, 26(2), 209-225.
- Huang, H. (2013). E-reading and e-discussion: EFL learners' perceptions of an e-book reading program. *Computer Assisted Language Learning*, 26(3), 258-281. <http://dx.doi.org/10.1080/09588221.2012.656313>.
- Hughes, S. (2007). The identification of quality indicators in English Language Teaching: A study in compulsory and non-compulsory secondary level language education in the province of Granada. Unpublished Doctoral Dissertation. Granada: Universidad de Granada.
- Jauregi, K., de Graaff, R., van den Bergh, H., & Kriz, M. (2012). Native/non-native speaker interactions through video-web communication: a clue for enhancing motivation? *Computer Assisted Language Learning*, 25(1), 1-19. <http://dx.doi.org/10.1080/09588221.2011.582587>.
- Jung, S. (2006). The use of ICT in learning English as an international language. Doctoral

- Dissertation. University of Maryland College Park, U.S.A. Accessed 14 December, 2014 from <http://drum.lib.umd.edu/handle/1903/3885>.
- Kavaliauskienė, G. (2008). Podcasting: a tool for improving listening skills. *Teaching English with Technology*. Accessed 28 December, 2008, from <http://tewtjournal.org/issues/past-issue-2008/past-issue-2008-issue-4/>.
- Kennedy, T., Wellman, B., & Klement, K. (2003). Gendering the Digital Divide. *IT & Society* 1, 149-72.
- Kessler, G. (2010). Fluency and anxiety in self-access speaking tasks: The influence of environment. *Computer Assisted Language Learning*, 23(4), 361-375. <http://dx.doi.org/10.1080/09588221.2010.512551>.
- Lee, L. (2004). Learners' perspectives on networked collaborative interaction with native speakers of Spanish in the US. *Language Learning and Technology*, 8(1), 83-100.
- Liaw, M. (2006). E-learning and the development of intercultural competence. *Language learning & Technology*, 10(3), 49-64.
- Lim, K., & Shen, H. (2006). Integration of computers into an EFL reading classroom. *ReCALL*, 18(2), 212-229. <http://dx.doi.org/10.1017/S0958344006000528>.
- Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Innovation in Language Learning and Teaching*, 1(1), 14-29. <http://dx.doi.org/10.2167/illt040.0>.
- McBride, K. (2011). The effect of rate of speech and distributed practice on the development of listening comprehension. *Computer Assisted Language Learning*, 24(2), 131-154. <http://dx.doi.org/10.1080/09588221.2010.528777>.
- MECD (2014). Datos y cifras: Curso escolar 2014/2015. Ministerio de Educación, Cultura y Deporte. Madrid: Subdirección General de Documentación y Publicaciones.
- Morton, H. & Jack, M. (2010). Speech interactive computer-assisted language learning: a cross-cultural evaluation. *Computer Assisted Language Learning*, 23(4), 295-319. <http://dx.doi.org/10.1080/09588221.2010.493524>.
- Pelgrum, W. (2001). Obstacles to the integration of ICT in education: Results from a worldwide educational assessment. *Computers and Education*, 82(5), 163-178.
- Razagifard, P., Razzaghifard, V. (2011). Corrective feedback in a computer-mediated communicative context and the development of second language grammar. *Teaching English with Technology*, 11(2), 1-17.
- Richards, C. (2005). The design of effective ICT-supported learning activities: exemplary models, changing requirements, and new possibilities. *Language learning & Technology*, 9(1), 60-79.
- Seferolu, G. (2005). Improving students' pronunciation through accent reduction software. *British Journal of Educational Technology*, 36(2), 303-316.
- Shang, H. (2007). An exploratory study of e-mail application on FL writing performance.

- Computer Assisted Language Learning*, 20(1), 79-96. <http://dx.doi.org/10.1080/09588220601118479>.
- Shih, Y. (2013). A virtual walk through London: culture learning through a cultural immersion experience. *Computer Assisted Language Learning*. Accessed 14 December, 2014 from <http://www.tandfonline.com/doi/abs/10.1080/09588221.2013.851703#.VQnLL2xFacB>
- Vanderlinde, R., Dexter, S., & van Braak, J. (2012). School-based ICT policy plans in primary education: Elements, typologies and underlying processes. *British Journal of Educational Technology*, 43(3), 505-519 <http://dx.doi.org/10.1111/j.1467-8535.2011.01191.x>
- Vetter, A. & Chanier, T. (2006). Supporting oral production for professional purposes in synchronous communication with heterogenous learners. *ReCALL*, 18(1), 5-23. <http://dx.doi.org/10.1017/S0958344006000218>.
- Weng, S., Smith, S. (2013). Reading and grammar learning through mobile phones. *Language Learning & Technology*, 17(3), 117-134.
- Yang, Y., Gamble, J., & Tang, S. (2012). Voice over instant messaging as a tool for enhancing the oral proficiency and motivation of English-as-a-foreign-language learners. *British Journal of Educational Technology*, 43(3), 448-464. <http://dx.doi.org/10.1111/j.1467-8535.2011.01204.x>
- Yip, F., & Kwan, A. (2006). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, 43(3), 233-249.
- Young, S.S. (2003). Integrating ICT into second language education in a vocational high school. *Journal of Computer Assisted Learning*, 19(4) 447-461. <http://dx.doi.org/10.1046/j.0266-4909.2003.00049.x>.
- Yunus, M., Nordin, N., Salehi, H. Sun, C., & Amin, M. (2013). Pros and Cons of Using ICT in Teaching ESL Reading and Writing. *International Education Studies*, 6(7), 119-130. <http://dx.doi.org/10.5539/ies.v6n7p119>.

Appendix A - Questions contained in student survey (translated)

How often do you use ICTs (inside and outside the classroom) to improve each of the following skills and competences? (1-never, 2-rarely, 3-sometimes, 4-usually, 5-always).

	1	2	3	4	5
Listening comprehension					
Oral expression (presentations, monologues, etc..).					
Oral interaction (conversation).					
Reading comprehension					
Written expression (compositions)					
Written interaction (letters, emails, etc..).					
Lexical competence					
Grammatical competence					
Cultural competence					
Pronunciation					

Give a score for the following statements (1-totally disagree, 2-disagree, 3-partially agree, 4-agree, 5-totally agree)

	1	2	3	4	5
ICTs favour the learning of foreign languages					
ICTs help me to improve my listening comprehension					
ICTs help me to improve my oral expression (presentations, monologues, etc.)					
ICTs help me to improve my oral interaction (conversation).					
ICTs help me to improve my reading comprehension					
ICTs help me to improve my written expression (compositions).					
ICTs help me to improve my written interaction (letters, emails, etc..).					
ICTs help me to improve my lexical competence					
ICTs help me to improve my grammatical competence					
ICTs help me to improve my cultural competence					
ICTs help me to improve my pronunciation					

Written Questions (translated)

Specify which tools (applications, webpages, platforms, online activities, podcasts, etc.) you use to improve your skills and competences (e.g. I use podcasts to improve pronunciation).

Have you had any difficulties in finding these tools? In other words, do you think there are enough tools and materials for each one of the skills and competences? (For example: I cannot find material to practice cultural competence).

Appendix B - Questions contained in the semi-structured interview (translated)

- 5) How often do you use ICTs in the classroom to train students in the following skills and competences (1-never, 2-rarely, 3-sometimes, 4-usually, 5-always):
 - a) Listening comprehension
 - b) Oral expression (presentations, monologues, etc..).
 - c) Oral interaction (conversation).
 - d) Reading comprehension
 - e) Written expression (compositions)
 - f) Written interaction (letters, emails, etc..).
 - g) Lexical competence
 - h) Grammatical competence
 - i) Cultural competence
 - j) Pronunciation

- 6) Which tools (applications, webpages, platforms, online activities, podcasts, etc.) do you use to train students in skills and competences (e.g. I use podcasts to improve pronunciation).

- 7) Have you had any difficulties in finding these tools? In other words, do you think there are enough tools and materials for each one of the skills and competences? (For example: I cannot find material to practice cultural competence).

- 8) Which tool do you believe is indispensable in your teaching practice? Why?
- 9) Do you believe ICTs favour the teaching of English? Why and how?
- 10) Do you believe ICTs favour the learning of English? Why and how?