

Digital Competence Training of EFL Primary Pre-Service Teachers: A Systematic Review of the Spanish Context

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Abstract

Competence frameworks are becoming a priority in education as reflected in the projects and reports by international institutions and organizations. The focus is on students' competency acquisition and also on teachers' competencies that should be considered essential for educators of the 21st century. In this study, digital and linguistic competences are highlighted as particularly relevant for pre-service teachers as many of the competences overlap categories. Over the last seven years, the publications in this field has increased, demonstrating the importance of digital and linguistic competence for EFL Primary pre-service teachers. Consequently, the aim of this systematic review, using the PRISMA model, is to analyze the published research on the simultaneous development of digital and linguistic competences of EFL Primary pre-service teachers to examine the current situation in the Spanish educational context. Although the limited number of studies, the analysis shed light on digital tools and applications that can be useful for digital and linguistic competence development of EFL primary pre-service teachers, contributing to improve their future praxis as teachers. However, some inconveniences are highlighted, such as the unfamiliarity with digital tools. According to the analysis, in order to respond to the 21st century educational demands, EFL pre-service teachers must be digitally and linguistically competent. This supports the need for specific training in competency development by taking advantage of the areas where competences overlap. Therefore, Higher Education Institutions (HEIs) need to develop curricula to provide competency gain and guarantee a wide range of skills to EFL Primary pre-service teachers for their future praxis.

Keywords: literature review, digital competence, linguistic competence, pre-service teachers, foreign language

1. Introduction

The need for a 21st century competency framework that addresses the needs of current educational demands is at the forefront of the agendas of several international organizations and institutions. Projects that are being carried out by the OECD (Future of Education and Skills 2030), or the Assessment and Teaching of the 21st Century Skills (ATC21S) set in motion by Cisco, Intel, and Microsoft, highlight the importance of digital skills and competences. Moreover, UNESCO (2018) has also published a report on 'the global framework of reference on digital literacy skills' that follows in line with several key reports of the European Commission (2019; 2020) that emphasize that digital and linguistic competences are some of the most important skills for the 21st century. The goals behind these initiatives are to improve not only students' learning and competence acquisition but also teacher's skills development (Fernández-Cruz & Rodríguez Legendre, 2021; Santágueda, Llopis-Nebot & Esteve-Mon, 2021). The never ending development of Information and Communication Technologies (ICT) and students' exposure to them in educational environments has changed students' learning needs and demands. This requires a new educational model for successful personal, academic and labor performance (Bello van der Ree & Morales Lozano, 2019).

In other words, the present study focuses on the importance of simultaneous digital and linguistic competences development in EFL pre-service teachers. This idea differs from the traditional paradigm in which studies tended to be related to the use of ICTs or a specific digital product in the EFL classroom which often focuses on its benefits or inconveniences. However, the reports previously mentioned intend to foster the importance of developing digital and linguistic competences by learners and educators, as a way to be more engaged in their own performance. Regarding teachers' digitalization, the Digital Competence Framework for Educators (DigCompEdu) (Punie & Redecker, 2017)

describes the implications of being a digitally competent educator in order to help learners, and it establishes a series of guidelines to support this development. For that reason, the relevance of these frameworks is related to the benefits of training digital and linguistic proficient EFL pre-service teachers to face the 21st century educational challenges.

The DigCompEdu framework supports that the improvement of students' learning and competences is directly related to the degree of digital competence of teachers; therefore it is necessary to clearly define digital competency in this context. Firstly, digital competence is defined as the ability to confidently, critically and responsibly use the new technologies for learning, at work, and for participation in society. According to the European Commission (2019), this competence includes information and data literacy, digital communication and collaboration, media literacy, digital content creation, safety (digital well-being and cybersecurity), intellectual property, problem solving i.e. an ability to solve problems derived from the ICT use (Morellato, 2014; Sánchez-Caballé, Gisbert-Cervera & Esteve-Mon, 2020) and critical thinking (critical and reflective use of ICT when creating new content or knowledge: Instefjord, 2015). According to Hämäläinen, Nissinen, Mannonen, Lämsä, Leino & Taajamo (2021), the digital competence term is conformed by three level concepts called skills, attitudes and knowledge. Firstly, the term digital skills refer to 'the ability to use, access, filter, evaluate, create, program and share digital content' (European Commission, 2019: 10). Others such as Van Laar, Van Deursen, Van Dijk & de Han (2017) support that digital skills correspond to dimensions such as creativity, critical thinking, problem solving, technical aspects and information management. Digital attitudes represent teachers' beliefs around digital technologies in the learning process, conditioning the incorporation of ICT in the classroom (Instefjord & Munthe, 2017), as ICT tend to be considered barriers for teaching professionals because of being endlessly susceptible to change (Nelson, Voithofer & Cheng, 2019). Knowledge in terms of digital competence is about what, how and why new technologies are used (Spiteri & Rundgren, 2020), which might lead to a favorable incorporation of digital tools into the educational context (Voogt, Fisser, Pareja, Tondeur & Van Braak, 2013).

Referring in general to digital competence, numerous studies identify that the incorporation of digital contents in education implies, apart from great advantages, a series of inconveniences and problems, such as digital illiteracy (Daniels, Bower, Burnett, Scott, Hatton, Ehiyazaryan-White & Monkhouse, 2020; Alnasib, 2023). In this regard, the scarcity of media literacy skills of in-service and pre-service teachers especially affects safety, reliability of the online content and tools, content creation and sharing compared to access and navigation (Rodríguez-García, Fuentes-Cabrera & Moreno-Guerrero, 2019).

Nonetheless, digital competence often overlaps with other key competences in the Lifelong Learning Framework (European Commission, 2019) such as literacy and multilingual competences. Thus, in the European context, in which multilingualism is often the case in many educational scenarios, it is impossible to consider the development of these competences separately. The European Commission (2019) defines multilingual competence as the ability to effectively use more than one language in communicative exchanges. Furthermore, these competences also contribute to the development of information management, communication, collaboration, critical thinking and creativity. (González-Pérez & Ramírez-Montoya, 2022; Abdullateef, 2021) which provides a clear overlap with digital competences.

According to the two latest Eurydice reports, the importance of English in the curriculum across Europe is clearly on the rise (Eurydice, 2017; 2023) and currently in Spain, 99% of Primary Education students are studying English (Eurostat, 2021). Subsequently, in the case of English as a Foreign Language (EFL) teachers, there is a particular need for the development of digital competences as it is intertwined with linguistic and multilingual competences. Moreover, some researchers establish that for EFL in-service and pre-service teachers it is not enough to know how to use new technologies, it is crucial to promote their digital skills to safely make use of tools and platforms, fostering their critical thinking and creativity (Akayoglu, Satar, Dikilitas, Cirit, & Korkmazgil, 2020). Moreover, some authors consider that the use of new technologies in the EFL classroom increases students' motivation, their autonomy and their performance on their learning process (Hussain, 2018). However, an essential requirement to successfully integrate ICT in the language classroom is not only about knowing online learning tools and platforms, it also consists of selecting appropriate tools and trustable content for the specific teaching methods applied (Park & Son, 2022). Nevertheless, according to some studies, teaching through new technologies is considered a time-consuming method that entails difficulties to teach skills (Torda, 2000; Adov & Mäeots, 2021), while other researchers support that it is not only a matter of competence, teachers could have a great level of digital competence, but this fact does not imply a successful integration of ICT in lessons (Vongkulluksn, Xie & Hawk, 2020). A balanced approach is achieved by the combination of digital competence and positive attitudes towards the use of ICT in online practices, resulting in an effective online learning method for linguistic and multilingual competences

as well (Myyry, Kallunki, Katajavuori, Repo, Tuononen, Anttila, Kinnunen, Haarala-Muhonen & Pyörälä, 2022).

From a general overview of this research topic, there are studies about primary EFL pre-service teachers' digital and linguistic competence development, (Fernández-Molina & Tabuenca-Cuevas, 2019; Nabhan, 2021) but there exists a need for a review of the literature centered on the Spanish educational context with a specific focus on pre-service teachers, which has not been sufficiently explored. This systematic review will help identify the current state-of-the-art and the extent to what is being done nationally, and what future research areas in competence development are necessary, as digital transformation requires digitally competent teachers in terms of knowledge, skills and attitudes (Cabezas-González, Casillas-Martín, Sanches-Ferreira & Teixeira-Diogo, 2017; Torres-Hernández & Gallego-Arrufat, 2022) that are combined with linguistic and multilingual competence in this case.

1.1 Objectives

The aim of this study is to identify the existing research regarding digital and linguistic competences development of Primary EFL pre-service teachers in Spain which will add new information to the research field. Therefore, this systematic review will analyze the published research that specifically identifies digital and linguistic competency development in Spain with the aim of understanding the possible competence gain derived from the relationship between the use of new technologies in the EFL classroom for linguistic and digital competence development, as these competences are considered indispensable for future teachers in the 21st Education panorama (Amerstorfer, 2022).

The necessity for this study arises from the need to discern research that focuses on digital and linguistic competency development, not on the use of a specific ICT in the EFL classroom. There is limited research in this area in the Spanish educational context, as there are few studies considering pre-service teachers' simultaneous linguistic and digital competence training for the Primary EFL classroom. The originality of this study comes from the focus on pre-service teachers and the Spanish national context among the publications with the objective of giving a unified response to all the criteria and categories extracted from the literature.

According to the previous objectives established for the present study, the following research questions have been designed:

RQ1. Which is the distribution of the studies in the chosen time period?

RQ2. Which are the existing studies on digital and linguistic competence of EFL primary pre-service teachers in Spain?

RQ3. Which types of ICT are described in the selected studies?

RQ4. Which are the benefits, inconveniences and competences related to the development of linguistic and/or multilingual and digital competences identified in the studies included in this research?

2. Method

The current research approach corresponds to a systematic literature review, in order to know the state of art of the topic chosen. Systematic reviews allow researchers to be aware of the pre-existing studies about a specific subject, for which they must establish a series of selection criteria to conform a transparent review that strictly includes or excludes research following them (Newman & Gough, 2020). Furthermore, this systematic review is carried out through the Preferred Reporting Items for Systematic Reviews and Meta-Analysis approach 2020 (PRISMA), based on a 27-item checklist with regard to methods, results, discussion, funding and a four-phase flow diagram (Identification, screening, eligibility and studies included).

2.1 Research Strategy

For this study, the searches were carried out on distinct databases, such as Web of Science (WOS), Scopus, Dialnet and ERIC. All the results were filtered by publication years 2018-2024 and excluding review articles. This 7 year-long period of time was selected because of the focus on competence development and the need to fully understand the current state of art on this subject matter. In the first place, the inclusion-exclusion criteria were established, in order to identify those articles that were mostly related to the core of the present systematic review.

The results obtained initially with the first search string were many, because it was not focused on a specific area, which implied that more limits were needed in order to get more accurate results in accordance with the subject matter. In response to that issue, the search string was refined by the incorporation of the term *English as a foreign language (EFL)*, reducing the results significantly, but still they were so high. For that reason, instead of considering

both educational levels, primary and higher education, and a global context, only higher education in the Spanish context was included in the search, which helped to obtain a lower number of results that were easily able to manage.

With respect to the all above, the inclusion-exclusion criteria finally applied on the different searches were the following ones: “No review articles” AND “EFL Primary pre-service teachers” AND “Higher education context” AND “Digital skills” AND “Articles in English or Spanish language” AND “Spanish context”. Moreover, this systematic review includes different types of studies regarding their methodological design, such as quantitative, qualitative, mixed method (quantitative and qualitative) and descriptive. Therefore, the application of the exclusion criteria cited above led to the following results for each search on the different databases, determining the general total result and the final ones, once applied the exclusion criteria and removed the repeated articles.

2.2 Data Collection Process

In total, eleven studies were analyzed for this research, resulting in Figure 1 that summarizes the four stages in which the selection process is divided, showing the most important data of each phase in a PRISMA flow diagram.

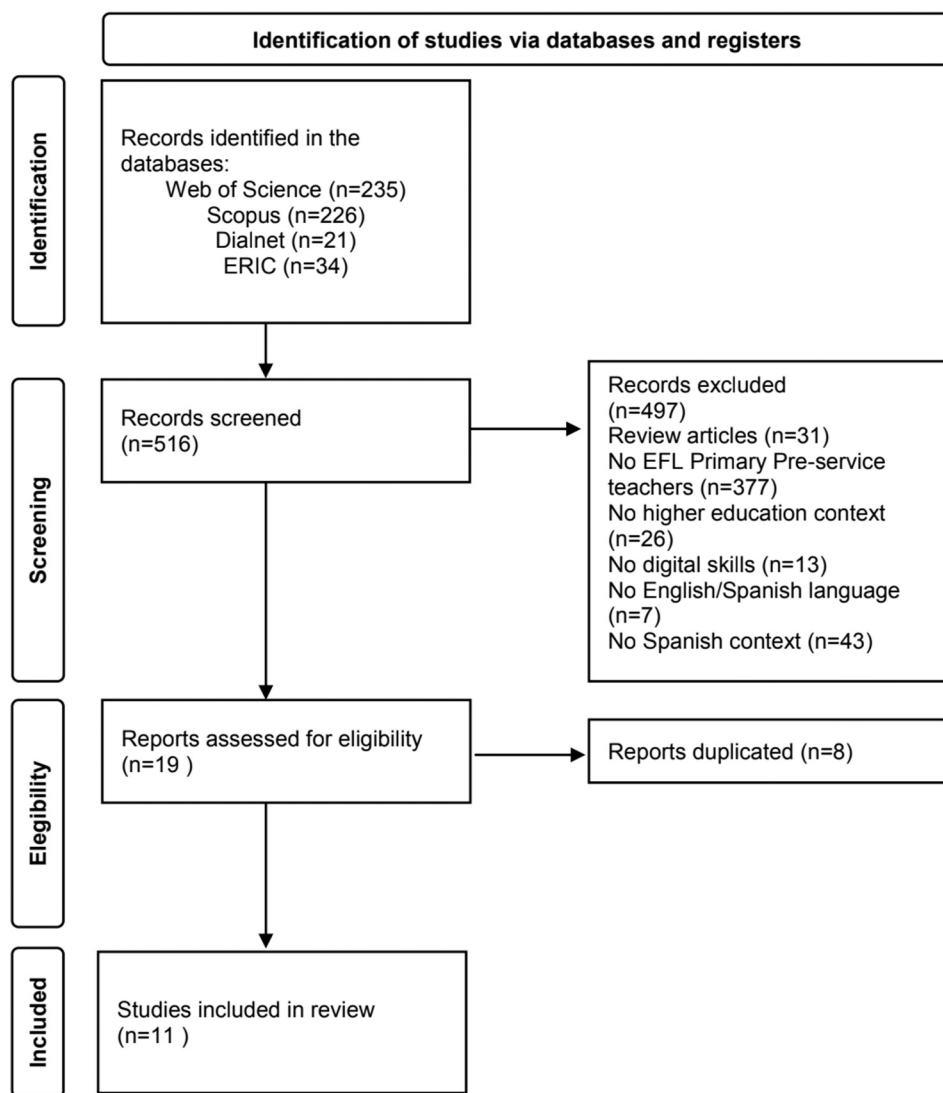


Figure 1. Research about EFL Primary Pre-Service Teachers' Linguistic Competence Development Through Digital Competence

3. Results

To start with, the first research question refers to the time distribution of the publication (Figure 2). In the period of time selected, the year with the most publications on the topic of the role of digital competence regarding EFL primary pre-service teachers' linguistic skills development was 2021. It must be said that there was an increase of research in that year, due to the COVID-19 pandemic that led to 100% virtual learning environments in education and because of the major use of ICT in students' daily life (Shava, 2022; Deroncele-Acosta, Palacios-Núñez & Toribio-López, 2023; Chirinos, Olivera y Cerra, 2020). Also, it must be said that a search was carried out for the period 2007-2017, in order to know the presence of previously published studies that could be interesting in the previous decade to the one included in this study, but no significant records were found.

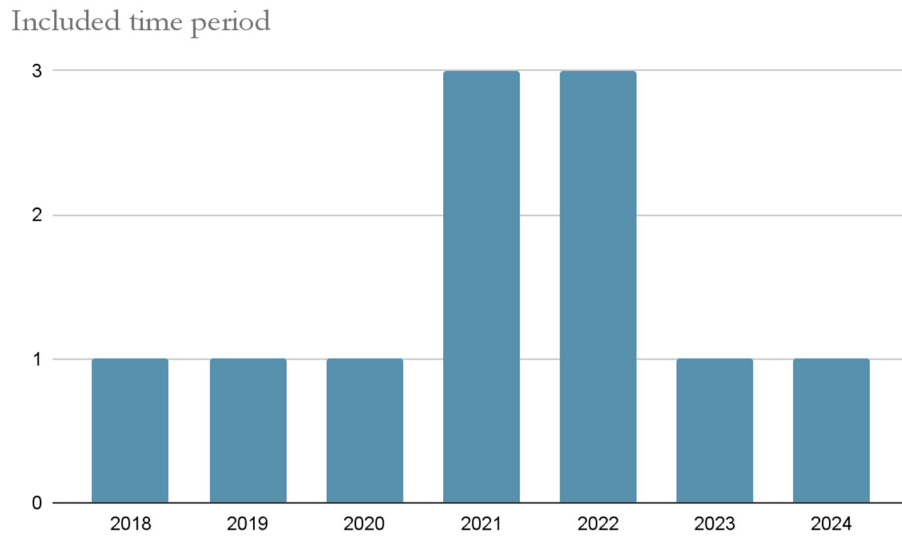


Figure 2. Included Articles Published per Year

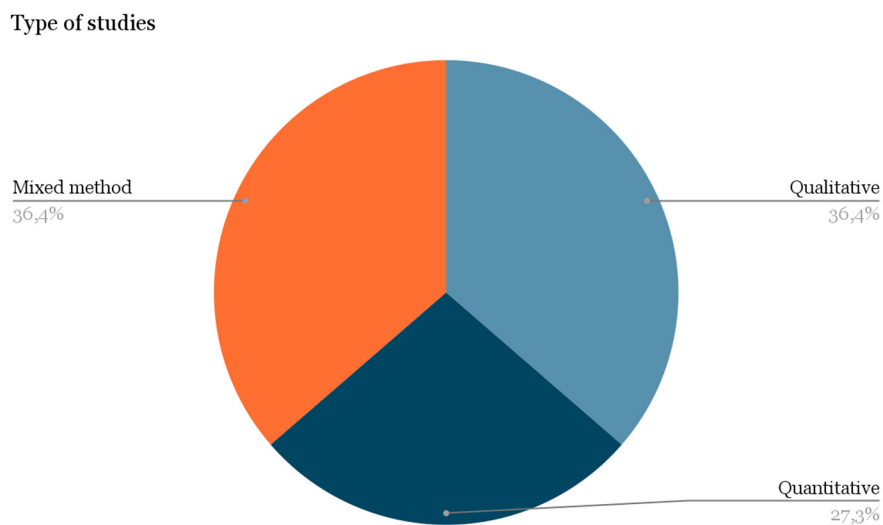


Figure 3. Type of Studies Included in the Study

Table 1. Studies Included in the Systematic Review, Considering Their Objectives, Description and Results

S/N	Authors	Method	Technology used	Sample	Journal
1	Huertas-Abril, C. A. [2018]	Qualitative	Plotagon Story -3D stories and avatar creator	36 Bachelor's Degree in Primary Education students (English speciality)	El Guiniguada Journal
2	García-Esteban, S., Villarreal, I., & Bueno-Alastuey, M. C. [2019]	Mixed-method	General ICT use	100 Bachelor's Degree in Primary Education students	Interactive Learning Environments Journal
3	Palacios-Hidalgo, F. J., Huertas-Abril, C.A., & Gómez-Parra, M. E. [2020]	Quantitative	General ICT use	65 Pre-service teachers	International Journal of Web-Based Learning and Teaching Technologies
4	Arroyo, R., Fernández-Lancho, E., & De La Hoz-Ruiz, J. [2021]	Mixed-method	Web-based writing instruction through ECM	100 Bachelor's Degree in Primary Education students in their first academic year	Journal of Information Technology Education
5	Huertas-Abril, C. A., Palacios-Hidalgo, F. J., & Gómez-Parra, M. E. [2021]	Qualitative	General ICT use	61 Bachelor's Degree in Primary Education students (English speciality)	The Electronic Journal for English as a Second Language
6	Otto, A., & López-Medina, B. [2021]	Mixed-method	General ICT use	47 Bachelor's Degree in Pre-Primary and Primary Education students (English speciality)	Journal of Language and Education
7	Míguez-Álvarez, C., Cuevas-Alonso, M., & Doval Ruiz, M. I. [2022]	Mixed-method	Video use	29 Bachelor's Degree in Pre-Primary or Primary Education students	Frontiers in Education Journal
8	Martínez, A. D. L. M., Hernández, A., & Esteban, R. M. [2022]	Quantitative	General ICT use	605 Bachelor's Degree in Pre-Primary Education or Primary Education students	Online Journal of Communication and Media Technologies
9	Huertas-Abril, C. A., & Palacios-Hidalgo, F. J. [2022]	Qualitative	General ICT use	332 Bachelor's Degree in English studies, in Primary Education or in Primary Education and English studies students	Contemporary Educational Technology Journal
10	Custodio-Espinar, M., & López-Hernández, A. [2023]	Qualitative	General ICT use	125 students coursing the EFL specialist itinerary of the Education degrees	Journal of Language Teaching and Research
11	García-Sampedro, M., Agudo-Prado, S., & Torralba-Burrial, A. [2024]	Quantitative	General ICT use	140 Bachelor's Degree in Primary Teaching, in Early Childhood Teaching Education and in Master's Degree on Secondary Education students	European Journal of Teacher Education

Additionally, the results related to the main objective of this study and the second, third and fourth research questions are presented in Table 1, with regard to the role of digital competence in the development of EFL primary pre-service

teachers' linguistic competence. A total of nine articles published in the period 2018-2024 were analyzed, considering the authors name, publication date, objectives of the study, description of the study (type of study, sample size, type of ICT), and results (benefits, inconveniences and competences developed). Moreover, it is essential to note that all the studies reflect linguistic and digital competences, as the DigCompEdu and other frameworks establish, with the aim of highlighting the importance that both of these competences have for EFL pre-service teachers training.

Regarding the methodology of the articles included, it can be seen in the following figure that the majority of the studies (36,4%) followed a mixed-method, just over one-third were qualitative studies (36,4%) and finally quantitative studies were 27,3% of the total.

In reference to the technologies included in the articles selected, it must be noted that even though the authors defend the importance of training EFL primary pre-service teachers towards proficient general ICT use, some specific technologies are cited in the texts. As a result, these technologies are classified in Table 2 into three categories (LMS, App/website and social media), depending on their nature.

Table 2. Technologies Used in the Studies

Technologies		
LMS	App / Website	Social media
MOOCs	Plotagon story	Facebook
	Duolingo	YouTube
	Lingua.ly	
	Babbel	
	Online dictionaries	
	Cooperpad collaborative writing tool	
	WBWI Multilingual Scientific Essay	
	Learning logs	
	Uvigo TV newspaper library	
	ShotCut	
	AVSDC	
	DaVinci Resolve	
	Adobe Premiere	
	e-Learning apps	
	Storybooks	
	Ebook website	
	Didactic TV	

4. Discussion

The purpose of this systematic review was to analyze the existing publications regarding the importance of digital and linguistic competences for the development of EFL Primary pre-service teachers' skills. This review of the research led to the identification of a range of competence acquisition with the aim of improving future teachers' praxis, differing from previous studies that were only based on becoming competent on the use of a specific ICT tool used in the EFL classroom.

Following the order of the research questions, it is important to highlight that the number of publications increased in 2021, due to the impact that COVID-19 pandemic had on education in general. This health crisis significantly affected educational contexts, as teachers and students were forced to stop working face-to-face, changing their communication channels and the way the teaching and learning process took place. Teachers' lack of digital competence during the COVID-19 lockdown led to the incorporation of ERLT (Akban, Rathert, & Ağçam, 2021). During this period of time, a great number of teachers and students had difficulties to evolve towards 100% online virtual environments, increasing their levels of uncertainty, stress and anxiety due to available resources or student's maturity (Khlaif, Salha, & Kourachi, 2021; Gallegos-Ibarra & Huertas-Abril, 2022). This radical digital

transformation led to the content adaptation to online education, and that is why some of the articles included in this systematic review, make reference to Emergency Remote Language Teaching (ERLT). The incorporation of teacher training in terms of digital competence seems to be essential, as some authors highlight in the articles included in the present study. This specific training provides them with skills that allow them to adapt their pedagogical approach to virtual environments (Sumardi & Nugrahani, 2021; Cahapay & Labrador, 2021).

The second research question of the present systematic review referred to the implementation of new technologies in language lessons. In this sense, the articles included focus on general ICT use to develop students' linguistic competence as well as on different applications or platforms that also contribute to the acquisition of students' language competence in addition to digital competence. Current educational demands do not consider the use of digital tools as innovative, but necessary, as this has become a need to engage students in their learning process with the aim of improving their linguistic input in a second language in the case of the EFL learning context (Alfárez-Pastor, Collado-Soler, Lérida-Ayala, Manzano-León, Aguilar-Parra & Trigueros, 2023). For that reason it is essential to highlight the role that DigCompEdu Framework plays when referring to the development of educators' and learners' digital competence towards teaching and learning (Punie & Redecker, 2027). These educational demands emphasize the significance of expanding educators' skills to offer a meaningful learning experience, mainly based in the following four areas: language (understand online texts); information (trustworthy data collection); connection (interact through online networks and exchange data); redesign (create meaningful online learning materials) (Pegrum, 2011; Dudeney, Hockly & Pelgrum, 2013; Martin, 2021). Otherwise, aspects such as technological, pedagogical and content knowledge seem to be indispensable for teachers, due to the importance of their role in planning the EFL lessons in order to guarantee a high quality learning process to learners (Ismaili, 2022). The level of development of the aspects previously named, tends to determine educators' attitude towards the incorporation of ICT in their lessons, as those with low digital competences would not feel enough confidence to implement digital tools in the EFL lessons, applying more traditional methods that would not correspond to the 21st century demands (Náznean & Ban, 2022).

With regard to the third research question, students' learning, one of the studies selected for this systematic review makes reference to the importance not only of developing students' linguistic skills through ICT, it also pays attention to the intercultural role in the EFL classroom. In the view of González (2023), teachers have the duty to introduce new technologies in the second language lessons to motivate the students to become engaged in their learning process, guaranteeing them an intercultural input from a pedagogical perspective. This would simultaneously contribute to the development of learners' language skills, the expansion of the language intercultural understanding and towards digital competence enhancement. Additionally, teachers must foster students' digital skills acquisition, in order to offer them the opportunity to fully participate in lessons, and maximize their language learning (Kearney, Schuck, Burden, & Aubusson, 2012; Akbana, Rathert, & Ağçam, 2021; Hajar & Manan, 2022).

Concerning the fourth and last research question of the study, the common benefits identified along the articles selected are related to the development of students' metacognition, the increase of their motivation and the improvement of their linguistic and teaching skills. As said before, this general enhancement is achieved through the incorporation of new technologies in the EFL classroom context. Several authors support these points as the use of ICT in the classroom attracts the learners' attention. As some studies show, the majority of students prefer learning a second language using the new technologies, instead of applying more traditional methods, as this encourages their active role in the EFL classroom (Yunus, Lubis, & Lin, 2009). Moreover, apart from empowering their participation, ICT also fosters the development of their critical thinking on the subject matter, making language lessons more attractive for them (Araya, 2021).

In addition, most researchers defend the importance of ICT incorporation in the EFL classroom, as it offers the opportunity to apply a wide variety of teaching and learning strategies by mixing resources such as images, videos or texts, among others. However, the DigCompEdu and other European and international frameworks support that both teachers and learners need to be trained in order to improve their digital and linguistic competences simultaneously, instead of focusing on the use of specific ICT tools that often becomes obsolete within a short period of time. Consequently, students become more involved in their EFL learning process and increase their motivation levels, as the digital contents provided encounter students' 21st century educational demands (Sabiri, 2020).

It should be noted that the articles shed light on some inconveniences derived from the incorporation of new technologies in the EFL classroom, directly affecting students' digital and linguistic competence development. According to the results, students seem to feel unfamiliarized with digital tools and in some occasions do not understand the objective of the ones presented by educators. Some authors underline this issue and consider the lack

of research and training as one of the main causes (Fernández-Batanero, Román-Graván, Montenegro-Rueda, & Fernández-Cerero, 2021; Fernández-Batanero, Montenegro-Rueda, Fernández-Cerero, & García-Martínez, 2022). Some researchers insist on the importance of training pre-service teachers towards the incorporation of digital contents in their lessons, and not only in the EFL classroom, in all subjects and contexts, but education is now facing a challenging era, in which the lack of teachers' digital training is still so high (Nugroho & Mutiaraningrum, 2020). Even language teachers appear to use ICT in the EFL classroom, on some occasions students do not seem to understand how to proceed in the digital and linguistic activities planned because of the lack of clarity in the task purpose (Kurniawati, Maolida & Anjaniputra, 2018). Educators' digital training must be fostered in order to offer students a high quality second language enhancement, as the development of some skills seems to be unequal. Speaking and listening tend to be more reinforced through ICT use, relegating reading and writing to more traditional methods with a lower impact on students' linguistic improvement (Hammou, 2021).

5. Conclusion

The present systematic review, albeit limited by the small sample size, sheds light about the benefits derived from the digital contents incorporation, such as the increase in motivation or the metacognition development of students, or the improvement of teaching skills in the case of pre-service teachers. Referring to the pre-service teacher's motivation level, the use of new technologies in the EFL classroom, apart from reinforcing their linguistic and digital competences. As most of the authors defend, ICTs offer students a wide range of opportunities to work on the four basic language skills, in addition, they also make the learning experience more attractive and engaging. Moreover, another of the main contributions of ICT is the advancement of students' metacognition. The incorporation of new technologies favors the development of critical skills, as the major students' exposure allows them to become used to dealing with the risks they entail, such as for example the presence of fake news, unsafe websites or any other virtual threat. Pre-service teachers can become proficient in terms of digital competence and widen their knowledge not only about the language, also regarding the use of new technologies that are present in all the aspects of the 21st century citizens.

As pre-service teacher training represents an opportunity to integrate ICT in their future educational practices, according to some authors, the role of university professors is essential for student teachers' digital skills development, as they are considered role models for future teachers. For that reason, university professors must integrate technology in their lessons to form competent pre-service teachers who practice responsible digital use, and are able to transmit this knowledge to their students in their future teaching practices (Akayoglu, Satar, Dikilitas, Cirit & Korkmazgil, 2020). To conclude, the literature analyzed states the importance of ICT in EFL pre-service teachers' digital and linguistic competence development. In response to this situation, HEIs should be 'directing efforts to develop an effective way to test teachers' digital abilities, so they can identify areas of improvement with the ultimate aim of developing their teaching practice' (Palacios-Hidalgo & Huertas-Abril, 2021: 73). Therefore, this systematic review highlights the need to incorporate digital content in the EFL classroom in order to achieve the successful development of learners' linguistic and digital competences. In order to prosperously contribute to the implementation of new technologies, the very first step that must be followed by the educational institutions is to foster EFL pre-service and in-service teachers' digital training. HEIs should integrate digital tools in their curricula to guarantee adequate training for all their graduates, who will become teachers in the future. Moreover, ICT implementation in the EFL classroom will provide pre-service teachers with a set of skills that will better train them as educators, fostering both learners' digital and linguistic competence in the future.

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Authors contributions

Both authors (Francisco Pradas-Esteban & María Felicidad Tabuenca-Cuevas) equally contributed to the study, being both of the responsible of designing the study, collecting data, drafting the manuscript and revising it. All authors read and approved the final manuscript.

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