

Perceptions of prospective teachers on the effect of distance learning on digital citizenship skills (example of Türkiye and Spain)

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RESUMEN

La ciudadanía digital es una praxis basada en valores personales y el uso de las herramientas que ofrecen redes sociales y tecnologías digitales. Constituye también un contexto para la actividad cívica, en el que se fusionan la responsabilidad social, el pensamiento informado y crítico y el activismo. Esta investigación tuvo por objetivo identificar perfiles de participación de las mujeres en entornos digitales. Se aplicó un cuestionario on-line a 175 mujeres mayores de edad seleccionadas por conveniencia. Los resultados indican que las mujeres mantienen una relación positiva con las tecnologías digitales; revelan un empoderamiento moderado en términos de autonomía, actitud y competencia digital, y evidencian poca participación ciudadana. Además emergieron dos perfiles de participación ciudadana. Las mujeres más jóvenes muestran una mayor participación, presentando más afinidad con las tecnologías y más empoderamiento digital. En contraste, el perfil de menor participación ciudadana lo conforman mujeres de mayor edad, con una relación más limitada con las tecnologías y sensación de inseguridad digital. Ello indica la necesidad de seguir trabajando para superar la brecha digital, desarrollando políticas educativas que fomenten las competencias digitales necesarias en el ejercicio cívico y democrático de la ciudadanía.

PALABRAS CLAVE: Ciudadanía digital, competencia digital, mujer, tecnología digital, compromiso cívico.

1 INTRODUCTION

As a result of the measures taken to protect against the global spread of the Covid-19 pandemic, face-to-face education was suspended in many countries around the world and distance learning was introduced (Yamamoto & Altun, 2020). In 2019, approximately 770 million students around the world had to interrupt their face-to-face education to protect themselves from the pandemic. Although distance education has a historical background, the rapid acceleration of distance education on a global scale has reawakened its importance (Zhong et al., 2020). The term 'distance education' was first used in the catalogue of the University of Wisconsin in 1892 in an article written by William Lighty in 1906 (Gunawardena & Mclsaac, 2013). In England, distance education began as a correspondence course at the University of London. In 1830, the correspondence system was developed for students who wished to complete their university education from outside the country, and was later used extensively by telephone, computer and video. In 1969, the first institutional adult education programmes were established for those who could not continue their higher education in formal education at the Open University established in England, and distance education was taught (Altun et al., 2008).

1.1 Distance learning

Distance learning and digital education platforms offer a great opportunity for students and educators. They allow students to access their courses whenever and wherever they want and to progress at their own pace. In addition, students can be supported with a variety of learning materials and interactive activities thanks to various online resources and distance learning tools. In addition, distance learning and digital education platforms offer students flexibility and agility. These platforms allow students to receive their education independently of the traditional classroom environment (Eken et al., 2020). However, distance learning also

faces some challenges. One of them is the lack of concentration and motivation of students. Distance learning and digital education platforms offer advantages and challenges for both educators and students and they may face challenges such as network connectivity and technical problems, diminished leadership or student engagement and motivation (Deniz & Vardal Özkutlu, 2024). These platforms may also face problems such as lack of communication and reduced interaction between students and teachers, and they do have an important role to play in meeting the educational needs of the technology generation (Carter et al., 2020; Turan, 2020). However, distance learning offers advantages such as flexibility of study time and accessibility for students who live far from educational institutions (da Silva et al., 2022).

1.2 Processes that Accelerate Distance Education

In this era, which we call the information age, technology is used in many fields (Borgman, 2010). In addition, technology and education are in constant interaction, influencing and changing each other. The use of technology in education has a significant impact on teaching and learning (Domingo & Garganté, 2016; Mdhlalose, & Mlambo, 2023). Therefore, it is necessary to integrate educational practices and technological tools in order to make the educational environment strong and effective. For example, the use of social networks to enhance learning, such as 'X' (Tur et al., 2017; Ortí Martínez et al., 2023; Burgueño López, 2024), Instagram (Zhu et al., 2022), Facebook (Chugh & Ruhi, 2018) or WhatsApp (Vilches & Reche, 2019); the use of virtual platforms (Angel Uribe & Cano Vásquez, 2011); podcasting (Mehri, 2015); or the need to incorporate AI applications into educational processes (Baidoo & Owusu, 2023; Sabzalieva & Valentini, 2023). For the development of societies and individuals, it is very important for them to have quick access to information and to follow the innovations in information technologies in the era we live in. The ease of access to information has significantly contributed to the increase in the use of distance learning applications and the development of global communication (Çallı, İşman & Torkul, 2002).

COVID-19 infection is a contagious and fatal disease that affects all aspects of life, including education. In order to prevent the possible spread of the causative virus, schools were closed and distance learning was introduced. Although distance learning is not a new application for students and teachers, it requires a number of characteristics such as basic numeracy and adaptability (Rajgor vd., 2020). In this context, it is a fact that changes in the education and training processes of countries have a significant impact on educational institutions and trainers. It is known that the process of creating and implementing learning models differs considerably between countries. It is believed that the uncertainty in identifying the best methods and tools and their use in education and training processes creates this difference. Considering that online learning is at an early stage for many countries, it is quite possible to encounter some problems and obstacles as well as advantages related to the implementation. Alam (2021) emphasized the necessity of artificial intelligence in distance learning. Dogan et al. (2023) observed that the increasing integration of AI in distance education has improved educational effectiveness. Karakose et al. (2023) supported this, noting that while distance education accelerated during the pandemic, advancements in AI technology have further enhanced efficiency.

1.3 The relationship between digital citizenship and distance learning

With the rapid development of technology, it can be seen that processes such as distance education and e-learning are being used more and more in educational processes. With the Covid 19 pandemic in our countries, as in the whole world, almost all educational institutions continued their activities with distance education. With the onset of the Covid-19 outbreak in Turkey and Spain, education was partially suspended

in all schools affiliated to the Ministries of Education, and it was decided to conduct the courses through distance learning (Durmuş, 2021; Lorente et al., 2020).

However, for effective and productive distance education, students not only need to know how to cope with fast-paced online courses, but also need to have good infrastructure and technological skills to learn from online courses (Adnan & Anwar, 2020). Research shows that distance learning students have inadequate technological skills, have problems using the Internet for educational purposes, preparing and giving presentations, and using information technologies (Sailer et al., 2021). According to Kaya (2020), the development of various applications such as e-school, e-health, e-banking and e-government in Turkey and Spain in recent years and the development of information technologies affecting all fields have made it important to raise digital citizens with high digital literacy. The fact that secondary school students have knowledge about digital citizenship and are well educated in this regard affects the education and training process as it does in all areas of life, and it is important to examine the level of digital citizenship of students (Kaya, 2020; Öztürk 2020; Keskin & Yazar, 2015; Flores, 2015; Mendez et al., 2019). According to Çubukçu and Bayzan (2013), a digital citizen is a person who can use digital tools that have taken their place in our lives with technology, respects individual rights and ethical laws in digital environments, acts responsibly, and follows security rules.

Digital citizenship, on the other hand, is the code of conduct that responsible digital citizen should follow when using technology (Mossberger et al., 2007). Furthermore, digital citizenship is defined as following universal ethical rules on the internet and being aware of the dangers that may arise (Choi, 2016). A digital citizen is someone who communicates in the Internet environment, shows correct behaviour in his/her exchanges and interactions, uses technology without harming others, is aware of the ethical consequences of his/her behaviour in the online environment, can criticise while using communication and information resources, and encourages other people in this direction. Through digital citizenship education, students should acquire 21st century skills within the framework of ethical rules and develop these skills (Çubukçu & Bayzan, 2013).

As mentioned above, the Covid-19 pandemic has had a significant impact on the social structure and economic order of people. In this context, it has also become clear that technology use and digital literacy are also influenced by economic status. Social inequality, due to the development of new situations, events and problems, creates a series of relatively new dimensions, expectations and outcomes. New developments, expansions and contractions experienced at global and national levels have shown that inequality in education needs to be discussed again. From this perspective, studies (Den Hertog, 2010; Nerse, 2020) have shown that there is a close relationship between socio-economic status and the use of digital technologies, and it has become important to study this area.

It is useful to make cross-cultural educational comparisons and to know today's digital competences in order to make a SWOT analysis (Marambe et al., 2012). It will be useful for other countries to know the level of use of digital technologies in educational activities of countries with similar geographical conditions and economic characteristics, such as Turkey and Spain, in order to draw conclusions. Indeed, the experience of digital technologies used in education and digital literacy skills in distance education activities will provide opportunities for the two countries to make comparisons between themselves.

1.4 Objectives

In the process of teacher education, in addition to the theoretical education that teacher candidates receive at the faculties, the experiences they gain in practice schools are very important. This importance is closely related to the development of teacher candidates' professional skills and their ability to grasp the intricacies of the teaching profession through school experience. At this point, the teaching practice that teachers undertake in practice schools as part of their pre-service education fulfils an important function (Bullough, 2002).

Therefore, the overall objective of this study is to explore and compare the perceptions of pre-service social studies teachers in Turkey and Spain regarding the impact of distance learning on digital citizenship skills.

The specific objectives of this study are:

- Investigate pre-service teachers' understanding of digital citizenship and their views on its integration into the curriculum.
- Identify the perceived benefits and challenges of distance learning in both countries.
- Examine the relationship between digital citizenship skills and participation in distance learning.
- To explore the future tools and technologies that pre-service teachers expect to shape digital citizenship education, including the role of artificial intelligence.

1.5 Research Questions

In order to address the issues raised, the following research questions are posed and will be addressed in this study:

- What are the opinions of pre-service teachers about digital citizenship education and training programmes?
- What are the opinions of pre-service teachers about distance education?
- What are the opinions of pre-service teachers about the problems encountered in distance learning (student, system, school management, application, material, course teaching)?
- What are the pre-service teachers' opinions about the positive or negative impact of digital citizenship skills on distance learning?

2 METHODOLOGY

This study used the phenomenological model, a qualitative research method, to explore social studies teachers' perspectives on the impact of distance learning on digital citizenship skills. Determining the experiences of individuals about an event is the most fundamental point in phenomenological research (Creswell, 2007). However, the phenomenological design limits the experiences of individuals to only one phenomenon and focuses on what they experience and how they experience it (Gliner et al., 2015).

2.1 Participants

The participant group of this study consisted of 14 pre-service teachers, aged 18-25, who were continuing their university education in Spain and Turkey. The demographic information of the research participants is presented in Table 1.

CODE	COUNTRY	GENDER	SOCIO-ECONOMICAL STATUS
SF1	Spain	Female	Average
SF2	Spain	Female	Average
SF3	Spain	Female	Average
SF4	Spain	Female	Medium-high
SF5	Spain	Female	Average
SM1	Spain	Male	Medium-high
SM2	Spain	Male	Medium-low
TF1	Turkey	Female	Medium-high
TF2	Turkey	Female	Average
TF3	Turkey	Female	Medium-low
TM1	Turkey	Male	Average
TM2	Turkey	Male	Medium-low
TM3	Turkey	Male	Average
TM4	Turkey	Male	Average

Table 1. Demographic Information of Participants

Looking at the table of participants (Table 1), we can see that there are 7 Spanish and 7 Turkish participants. 5 of the Spanish participants are female and 2 of them are male while 3 of the Turkish participants are male and 4 of them are female. 4 Spanish and 4 Turkish participants have an average income. While 2 of the Turkish participants have a low-income status, 2 of the Spanish participants have a high-income status.

The sample size of this study, consisting of 14 pre-service social studies teachers from Turkey and Spain, is in line with the principles of qualitative research, particularly within the phenomenological approach. This methodology prioritizes the depth and richness of participants' lived experiences over numerical representation. The aim is to gain a detailed understanding of how individuals perceive and interpret the impact of distance learning on digital citizenship skills. Therefore, a smaller, purposive sample allows for in-depth interviews and nuanced analysis, enabling researchers to explore complex social and educational phenomena. In addition, the use of thematic coding and validation techniques ensured the credibility and trustworthiness of the data despite the limited number of participants.

The criteria set by the researchers for the selection of the participants were the professional acquaintance of the researchers with the participant group, the fact that the participant group is known to have a certain academic knowledge and interest in digital education and distance learning processes, and the fact that the participant group has a certain success story in the institutions where they received their education.

2.2 Data Collection Tools and Analyze

The data of the study were obtained from the interviews conducted through a semi-structured interview form previously developed by the researchers. In order to formulate the questions in the semi-structured interview form, scientific studies on distance education (Adnan & Anwar, 2020; Angel Uribe & Cano Vásquez, 2011; Baidoo & Owusu, 2023; Burgueño López, 2024; Chugh & Ruhi, 2018; Durmuş, 2021; Flores, 2015; Kaya, 2020; Keskin & Yazar, 2015; Lorente et al., 2020; Mehri, 2015; Mendez et al, 2019; Ortí Martínez et al, 2023; Öztürk 2020; Sabzalieva & Valentini, 2023; Sailer et al, 2021; Tur et al, 2017; Vilches & Reche, 2019; Zhu et al, 2022) were reviewed. After completing the literature review, researchers ensured that the research questions were easy to understand, subject-oriented, open-ended, non-directive, and logically ordered after completing the literature review, as stated by Bogdan and Biklen (1997) and Patton (1987). MAXQDA 2024 was used to measure the agreement between the data and it was found that the agreement between the data was at the 95% level. The conspicuous codes with the agreement index were shown to the participants and their opinion was sought as to whether they were appropriate to the evaluations they had proposed, and once the above procedures had been completed, the semi-structured questions were finalized.

As the data in this research will go through qualitative analysis processes, the phenomenon was first defined and a semi-structured interview form was created for data collection. Data collection procedures were then carried out and this process was followed by data analysis, interpretation and reporting (Johnson & Christensen, 2004). As the content analysis technique is often used in scientific studies to obtain themes and concepts that can explain qualitative data (Mayring, 2015), the data in this study were analyzed according to the content analysis technique. Accordingly, the data were interpreted by dividing them into codes, categories and themes according to the content analysis technique, using the MAXQDA 26 program.

As the data in this research will be subjected to qualitative analysis processes, the phenomenon was first defined, and a semi-structured interview form was created for data collection. Data collection procedures were then carried out, and this process was followed by data analysis, interpretation, and reporting (Johnson & Christensen, 2004). Data were collected via email messages sent by the researchers to the participants and analyzed by both researchers in a collaborative process. To ensure the internal validity of the study, preliminary interviews were conducted with different teachers who were not involved in the study (triangulation of data sources), and care was taken to ensure that participants participated in the study under equal conditions during the data collection process. Encouraging language (style) was used in the text of the email messages to ensure that participants could express their views clearly and comfortably. Care was taken not to manipulate participants' views in the text of the email message and in the data collection form.

As the content analysis technique is often used in scientific studies to obtain themes and concepts that can explain qualitative data (Mayring, 2015), the data in this study were analyzed according to the content analysis technique. Accordingly, the data were interpreted by dividing them into codes, categories, and themes according to the content analysis technique using MAXQDA 24 programmer. In case of differences between the coding's, the researcher-authors met and came to a common decision. In order to classify the research data and present direct quotations, the participants were given sequential code numbers (SF1...TF1...) (Yıldırım & Şimşek, 2013). In addition, the code cloud and code map obtained from the data were used in the study to provide the reader with a holistic perspective. It is important that the findings obtained are in line with the purpose of the research and are consistent to ensure the reliability of the research (Creswell & Miller, 2000). In this regard, the findings were presented to two participants (SM1, TM1) to evaluate the findings and eliminate the sections with the possibility of misunderstanding, and positive feedback was received. A purposive sampling method was used to ensure the transferability of the study,

and participants were selected based on their previous experience or knowledge of the topic under study. In addition, the raw data were transformed according to the themes and transferred without adding the researcher's interpretation and remaining true to the nature of the data (Guba & Lincoln, 1982).

3 RESULTS

The findings are organized thematically based on participants' responses and reflections on digital citizenship, distance education and the tools and technologies that shape these domains. Key themes emerged from the content analysis, including perceptions of the need for digital citizenship education, its integration into curricula, experiences of distance learning, and anticipated future developments in digital education. Direct quotes from participants are included to illustrate and support the themes identified.

In case of differences between the coding's, the researcher authors met and reached a common decision. In order to classify the research data and present direct quotations, participants were given sequential code numbers (SF1.... SM1... TF1... TM1...) (Yıldırım & Şimşek, 2013).

3.1 The need for digital citizenship education and its relationship to the curriculum

The researchers categorised the views of Turkish and Spanish teacher candidates as emphasising the need for digital citizenship education and recognising its inclusion in relevant areas of the education curriculum. (Tables 2 and 3).

Spanish	Category	Sub Category	Candidates
	Curriculum Relevance	Digital learning combined with digital use	SF2, SF4
		It is important to learn how to use digital technology for the future	SF3, SF5
		Network security issues should be emphasised	SF1, SM2
	Curriculum is irrelevant	Current curriculum focuses on subjects that are not useful in real life	SM2
Turkish	Category	Sub Category	Candidates
	Curriculum Relevance	Digital technology and artificial intelligence	TF2, TF3
		Responds to today's needs	TM2, TM4
		Emphasises digital citizenship issues	TF1, TM1
		Focus on the use of digital technology	TM3

Table 2. Need for and objectives of digital citizenship education

As can be seen from the results in Table 2, Spanish and Turkish participants agreed on the need for digital citizenship education.

Spanish participants mainly stressed that the use of basic technology applications is important in digital citizenship education, while Turkish participants made more emphasis on the importance of knowing one's rights and responsibilities in digital environments.

SF4 stated that the use of basic technology applications is important, while SF5 argued that digital citizenship education is necessary because there will be a need to use technology in the future. This importance and need for technological tools are clearly perceived in the direct statements of these participants, who point out:

SF4: ...There is a need for digital citizenship education. The main goals would be for students to be independent in their use of technology and to be able to use these resources...

SF5: ...Yes, the earlier you start to learn how to manage these areas, the more useful it will be in the future...

In the Turkish population, TF1 believed that it is necessary to know one's rights and responsibilities in the digital environment, and TM2 stated that digital citizenship education is necessary to move forward with confidence in the future. Accordingly, the direct statements of TF1 and TM2 participants are as follows:

TF1: ...Digital citizenship refers to the competence of individuals in the use of digital platforms in the field of information and communication. More precisely, we can say that this competence is linked to citizenship issues and that people use digital environments in accordance with their rights, responsibilities and freedoms. Among other objectives, the social studies course aims to make students, who will be tomorrow's adults, aware of their rights, responsibilities and freedoms in digital environments...

TM2: ...In my opinion, this education is raising generations that can look to the future with confidence. The acquisition of digital literacy by society also depends on the provision of this education. This is how a secure society is created...

	Category	Sub Category	Candidates
Spanish	Digital Citizenship Education is Necessary	The use of basic technology applications is important	SF4, SM2, SM1
		There will be a need to use technology in the future	SF3, SF5
		Knowledge of basic concepts is needed	SF1
		Societies need time to reflect	SF2
	Category	Sub Category	Candidates
Turkish	Digital Citizenship Education is Necessary	They need to know their rights and responsibilities in the digital environment.	TF1, TF3, TM1, TM4

		It is important to move forward with confidence	TM2
		It is important to use digital technology tools	TF2
		Being able to solve problems that may arise	TM3

Table 3. Relationship between education curricula and digital citizenship education

As can be seen from the results in Table 3, the Spanish and Turkish participants generally agreed that the educational curricula in their countries are related to digital citizenship education. On the one hand, Spanish participants emphasised that the use of digital technology is important for the future and that digital learning is combined with digital use, while on the other hand, Turkish participants declared that educational curricula are organised according to today's needs and that digital technology and artificial intelligence issues can be addressed.

While a Spanish participant (SF2) stated that digital learning is combined with digital use, SF3 believed that it is important to learn how to use technology in the future. This information is clearly corroborated in the literal sentences of participants SF2 and SF3, shown below:

SF2: ...I think so because it combines digital use with learning and I think this is an important detail for the future...

SF3: ...Yes, because we have different subjects that we work with and having technological resources helps. If we learn more how to use tools like PowerPoint, Excel, etc., it will give us more confidence for the future...

A Turkish participant (TM4) proclaimed that the current curriculum meets today's needs in terms of being related to digital citizenship education, but then, TF2 argued that the current curriculum should be able to deal with digital technology and artificial intelligence. As a result, the direct statements from TM4 and TF2 participants are as follows:

TM4: ...The education programme is sustainable with the education applied. The fact that similar acquisitions are also given in computer science courses increases the awareness of the students. In this respect, it can be said that the curriculum can respond to today's needs...

TM2: ...Of course, digital citizenship education makes an important contribution to today's needs by finding a place in the curriculum. I think it is sustainable. Moreover, digital rights and digital access, which are part of digital citizenship, are among the subjects that should be taught in an integrated way with other curricula.

3.2 Evaluations of distance learning and digital citizenship skills

The Turkish and Spanish pre-service teachers' general evaluations of distance education was categorized as positive and negative, and their views on the impact of digital citizenship skills on distance education were classified as follows: 1) there is an interaction, and 2) there is no interaction (Tables 4 and 5).

Spanish	Category	Sub Category	Candidates
	Positive	Provides opportunities to meet more people	SF3, SF4, SF5, SM1

		Provides an opportunity to organized leisure time	SF2, SM2, SF5	
		It is an important opportunity for those who want to escape from the human environment.	SF1	
		Eliminates the problem of transport and access	SF4	
	Negative	Difficulties in building close and bilateral relationships	SF1, SF3, SF4	
		Difficulties with concentration and motivation	SF3	
		Not applicable in the fields of education and medicine	SM1	
		Emancipation and autonomy may be an issue	SF5	
		Teacher explanation may be required	SM2	
	Turkish	Category	Sub Category	Candidates
		Positive	Useful during pandemics and disasters	TF1, TF2, TM1, TM4
It eliminates the problem of transport and access			TF1, TM4	
It is the first pillar of digitisation			TM2	
Negative		Users have problems with monitoring and follow-up	TM1, TM3, TM4	
		Using distance learning tools without knowing how to use them	TF3, TM2	
		Difficulties with concentration and motivation	TF1	
		Difficulties in establishing close and bilateral relationships	TM4	

Table 4. Evaluations about Distance Education

As can be seen from the results in Table 4, the Spanish and Turkish participants had different opinions about distance learning.

In relation to distance learning, Spanish participants used both positive (providing more contact with people) and negative (establishing closed, bilateral relationships) terms to define distance learning. Turkish participants highlighted positive impressions of distance education, noting its usefulness during pandemics and other emergencies. However, they also expressed concerns regarding issues such as a lack of user control and difficulties with follow-up.

A Spanish participant (SF5) claimed that distance learning had enabled them to make more contacts with more people, SF3 used the negative statement to refer to the difficulties in establishing bilateral and close relationships on distance learning platforms. These data are perfectly reflected in the direct statements of the above-mentioned participants, which are shown below:

SF5: ...I think you have both, a positive side that gives you autonomy and freedom and a negative side that can be harmful in some cases, like too much autonomous organization...

SF3: ...Distance learning is difficult because you cannot always concentrate on the content, but face to face you have more contact and more help. Positive: you can be in different work areas, negative: you can lose concentration...

TF1 used a positive expression to refer to distance learning, specifically that it is a useful method for pandemic and disaster situations, but TM3 used a negative statement: distance learning causes control and follow-up problems for users. The direct statements from TF1 and TM3 participants are as follows:

TF1: ...Distance learning was a savior for us during the pandemic period. We were able to have lessons with our students who had the opportunity without much loss and we were able to stay in touch. Distance learning removes the barriers of time and space. It offers people the opportunity to learn and improve themselves online at any time. We can attend many training courses, seminars and events. On the negative side, it can bring loss of motivation and learning difficulties. In other words, it may not be as effective as face-to-face training. Of course, this situation can vary depending on the subject, the training and the audience...

TM3: ...The primary objective should not be distance learning. Because not all students have the necessary tools for education, and there are problems in supervising and monitoring students. Distance learning is a process that should be continued only in compulsory cases or as a supporting and complementary education...

Spanish	Category	Sub Category	Candidates
	There is Interaction	Use and skill complement each other	SF4, SF5
		Digitisation serves a purpose	SF2
		Acquiring digital skills provides access to resources	SM2
	No Interaction	Subject areas vary	SF1, SF3
		There is no relationship between use and skills	SM1
Turkish	Category	Sub Category	Candidates
	There is Interaction	Use and skill complement each other	TF1, TF2, TM3
		Creates a sense of ownership	TF3, TM4
		Serves the digital learning agenda	TM2
	No Interaction	Distance learning is unnecessary	TM1

Table 5. Relationship between digital citizenship skills and participation in distance learning

As can be seen from the results in Table 5, the Spanish and Turkish participants assessed the interaction of digital citizenship skills with distance learning.

The Spanish participants who argued that there is an interaction between digital citizenship skills and distance learning emphasised the fact that usage and skills affect each other, while those who stated that there is no interaction between digital citizenship skills and distance learning attributed it to the differences in subject areas.

The Turkish participants mostly mentioned that usage and skills influence each other, similar to the Spanish participants who declared that there is an interaction between digital citizenship skills and distance learning, while the participant who stated that there is no interaction between digital citizenship skills and distance learning determined that distance learning is unnecessary.

Regarding the Spanish participants, SF4 stated that there is an interaction between digital citizenship skills and distance learning in the sense that use and skills complement each other, while SF2 stated that it serves the purpose of digitisation. The direct statements of these participants are shown below:

SF4: ...In fact, digital citizenship skills are key for distance learners because technology allows you to access multiple sources if you have the knowledge. Digital citizenship is crucial here because it also refers to technological literacy...

SF2: ...I think so, because when you learn digitally, you need to use it well. Since digital citizenship is related to the area of using digital technologies, I think the two support each other...

The Turkish participant TF1 argued that digital citizenship skills are interaction in distance learning and that use and skills complement each other, while TF3 proclaimed that digitalisation creates a sense of responsibility in distance learning. To reinforce this data, direct statements from participants TF1 and TF3 are shown:

TF1: ...As it is related to the field of information and communication, it definitely has an impact. People with digital citizenship skills use digital environments more actively and consciously. They are aware of their rights and responsibilities. They can take a critical look at the situations they encounter...

TF3: ...definitely. In fact, the student who acquires digital skills will also have a certain sense of responsibility to actively participate in the process by reinforcing it with citizenship education.

3.3 Future digital citizenship and tools to be used in distance learning

According to the general evaluations of Turkish and Spanish pre-service teachers about the tools to be used in future digital citizenship and distance education, these tools were categorised as Artificial Intelligence, social networks and presentation tools (Table 6).

	Category	Sub Category	Candidates
Spanish	Artificial Intelligence	Provides an important area of knowledge	SF1, SF4, SM1
		Access to information is fast, efficient and fun	SF2

	Social Networks	Makes access to information easier	SF4
	Presentation Tools	Provides important use as a resource	SF4
	All vehicles	All digital tools are important to use	SF3, SM2
Turkish	Category	Sub Category	Candidates
	Artificial Intelligence	Affects all digital technologies	TF1, TF2, TM2
		Has an important network of users	TF3, TM1
	Social Networks	Plays a key role in access to information	TF1
	Presentation Tools	Provides important use as a resource	TM3
	All vehicles	All digital tools are important to use	TM4

Table 6. Tools to be used in future digital citizenship and distance education

As can be seen from the results in Table 6, the Spanish and Turkish participants made evaluations about the tools to be used in digital citizenship education and distance learning in the future.

Thus, Spanish participants often cited artificial intelligence as the most important tool for future use, emphasizing its ability to provide a rich and comprehensive source of information. In addition, social networks, presentation tools and all digital tools will be used in digital citizenship education and distance learning.

Most of the Turkish participants stated that Artificial Intelligence is the tool that will be used the most and they attributed this to the fact that AI influences digital technologies and has an important usage network. In addition, social networks, presentation tools and all digital tools will be used in digital citizenship education and distance learning.

SF1 stated that Artificial Intelligence offers an important information field among the tools to be used in digital citizenship education and distance learning in the future, and another Spanish participant (SF2) pointed out that AI offers the possibility to access information in a fast, efficient and fun way. Accordingly, the direct statements from SF1 and SF2 participants are as follows:

SF1: ...Because social networks and artificial intelligence provide us with a wide range of information media with different points of view...

SF2: ...Social networks and artificial intelligence because they allow us to access a lot of information in a fast, efficient and entertaining way...

Turkish participant TM2 argued that Artificial Intelligence affects digital technologies among the tools to be used in digital citizenship education and distance learning in the future, and TM1 added that Artificial Intelligence has an important usage network. Below you can read the direct statements of participants TM1 and TM2:

TM1: ...One should be competent in using digital citizenship tools. Artificial intelligence will be more effective in all areas of life. Because the speed of development of artificial intelligence is enormous. Artificial intelligence accelerates digitalisation and offers an important ease of use...

TM2: ...There should be more emphasis on outcomes and skills in digital citizenship education. Effective distance learning also requires the knowledge and skills to use technology effectively and efficiently. In fact, the incredible development of artificial intelligence plays a key role in changing and transforming people. Meanwhile, artificial intelligence is in a reciprocal movement with social networks and internet technology...

4 DISCUSSION

When analysing the need for digital citizenship education, both Turkish and Spanish participants agreed on the importance of digital citizenship education as a fundamental component in the holistic development of individuals. Regarding the relationship between digital citizenship education and the curriculum, both groups stated that there is a connection between digital citizenship education and the curriculum. Turkish participants stated that the curriculum addresses current needs and emerging issues such as digital technology and Artificial Intelligence, while Spanish participants stated that digital learning is compatible with digital use. It is relevant to note that multiple authors such as Çubukçu and Bayzan (2013), Flores (2015), Kaya (2020), Keskin and Yazar (2015), Mendez et al. (2019), Öztürk (2020), Capuno et al. (2022), Öngören (2022), and von Gillern et al. (2024) highlighted the importance of digital citizenship education and warned against its inclusion in the curriculum. Regarding distance learning, both in the Turkish context (Durmuş, 2021) and in the Spanish context (Lorente et al., 2020), this type of educational system had to be implemented in all schools affiliated to the Ministries of Education due to the pandemic situation caused by COVID-19, so in this period it was decided to deliver the course through a methodology based on distance learning.

As for the evaluations of distance learning by Spanish and Turkish participants, Spanish participants pointed out that this methodology increases their opportunities to meet people and eliminates transport and accessibility problems. Turkish participants asserted that distance learning reduces transport barriers and supports digitalization. In terms of negative aspects, Spanish participants highlighted the difficulty of building close relationships and maintaining focus and motivation, and it is interesting to note that also Turkish participants pointed out that users have difficulty being motivated. Some participants considered distance learning to be unnecessary. However, as Yıldırım (2022) stated, distance learning was urgently implemented worldwide and in Turkey during the Covid-19 period in order to prevent students from falling behind in the educational process. Therefore, the assessment that distance education may be unnecessary does not contribute much to the field and educational activities. Eker et al. (2020) stressed that the separation of students from the traditional classroom environment has positive aspects in distance education, but Carter (2020) and Turan (2020) stated that students' lack of concentration and motivation may be the most important problem in distance education. They also argued that this situation leads to students not socializing enough with each other, which is another of the main problems pointed out by Kuzu (2023).

Regarding the relationship between distance learning and digital citizenship skills of Spanish and Turkish participants, the majority of them agreed that digital citizenship skills complement distance learning and very few participants noted that there is no relationship in terms of subject-specific differences or the unnecessary nature of distance learning. In this regard, Mossberger et al. (2007) stressed that an individual with digital citizenship skills can participate effectively and efficiently in distance education activities, and stated that it allows the individual to advance in terms of communication skills. Choi (2016) also approached the issue

from a moral perspective and emphasized that digital citizenship skills are necessary for participation in distance education processes. This scenario presents digital citizenship as a providential tool for acquire universal ethical rules on the internet and being aware of the dangers that may arise (Permana et al., 2023).

Spanish and Turkish participants have a common statement about the importance of Artificial Intelligence as a tool to be used in digital citizenship and distance learning in the future. Accordingly, Spanish participants emphasized that AI has an important place in the field of digital citizenship and distance learning in terms of its ability to provide fast, effective and entertaining access to information. On the other hand, Turkish participants highlighted the role of AI in the transformation of digital technologies and its wide network, stating that AI is an important tool. Alam (2021) stated that artificial intelligence should definitely be used in distance learning processes. Dogan et al. (2023) stated that with the increase in the use of artificial intelligence in distance education, the educational efficiency in distance education increased, and Karakose et al. (2023) defended this situation by stating that distance education processes were rapidly entered with the pandemic period, but with the development of artificial intelligence technology, the process started to become efficient.

5 CONCLUSIONS

The results of this study underline the crucial role of integrating digital citizenship education into the holistic education of individuals. Both Turkish and Spanish participants highlighted the need for digital citizenship education, emphasizing its importance in equipping students with the knowledge, skills and ethical frameworks needed to navigate digital environments. Turkish participants pointed to the curriculum's responsiveness to emerging needs such as artificial intelligence and digital technology, while Spanish participants emphasised the compatibility of digital learning with practical digital use. These shared perspectives are in line with the existing literature, which consistently advocates for the inclusion of digital citizenship education to foster responsible, informed and capable digital citizens.

Distance learning proved to be a double-edged sword, bringing both opportunities and challenges to the educational landscape. Spanish participants appreciated the accessibility and networking potential of this method, while Turkish participants valued its role in supporting digitalization and reducing transport barriers. However, both groups recognized common concerns, in particular the difficulties of maintaining motivation and fostering interpersonal relationships in a remote learning environment. These challenges are in line with wider concerns raised in academic discourse, which highlights motivation, socialization and engagement as key areas to be addressed for effective distance learning.

Artificial Intelligence (AI) was unanimously recognized by both groups as a transformative tool for the future of digital citizenship and distance learning. Spanish participants emphasized its effectiveness in providing fast and engaging access to information, while Turkish participants highlighted AI's central role in driving technological change and expanding networks. This shared recognition highlights AI's potential to improve the educational experience, a perspective reinforced by recent studies linking AI integration to improved educational efficiency. As educational practices continue to evolve, the use of tools such as AI will be critical to addressing current challenges and capitalizing on opportunities to build a more inclusive, accessible and effective educational framework.

One of the key strengths of this study lies in its cross-cultural approach, drawing insights from participants in two different cultural contexts, Turkey and Spain. This comparative framework enriches the findings by highlighting similarities and differences in perceptions of digital citizenship education and distance learning, providing a unique perspective on how these concepts are understood in different settings. However, the

small sample size of the study, limited to 14 participants, is a significant limitation as it limits the generalizability of the findings to broader populations. Future research could address this limitation by increasing the sample size and including participants from additional cultural contexts, allowing for a more comprehensive analysis. In addition, further studies could explore the longitudinal impact of digital citizenship education and the evolving role of artificial intelligence in shaping both digital literacy and educational practices.

As a result of the analysis, it has been established that digital transformation is taking place all over the world, and accordingly the shape and needs of citizenship have changed, and the education system has an important role to play in keeping up with this change. In this context, it can be stated that the digital citizenship curriculum is needed both individually and socially. To this end, a digital citizenship module should be developed and integrated into teacher training programs, as well as internships, application areas, and project-based learning.

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PERCEPCIONS DELS FUTURS PROFESSORS SOBRE L'EFFECTE DE L'APRENENTATGE A DISTÀNCIA A LES COMPETÈNCIES DE CIUTADANIA DIGITAL (EXEMPLE DE TURQUIA I ESPANYA)

Aquest estudi explora les percepcions de professors d'estudis socials en formació de Turquia i Espanya sobre la relació entre l'aprenentatge a distància i les competències de ciutadania digital. Aquest estudi explora les percepcions de professors d'estudis socials en formació de Turquia i Espanya sobre la relació entre l'aprenentatge a distància i les competències de ciutadania digital. Per això, es va utilitzar un model fenomenològic en un mètode de recerca qualitativa i es van recollir dades mitjançant entrevistes semiestructurades amb catorze participants. Els resultats mostren que tots dos grups posen èmfasi en la necessitat d'integrar l'educació per a la ciutadania digital als plans d'estudi. Els participants turcs se centren en temes emergents com la intel·ligència artificial i les tecnologies digitals, mentre que els participants espanyols posen èmfasi en l'alineació de l'aprenentatge digital amb aplicacions pràctiques. digitalització, com a repte, ja que la motivació i la interacció interpersonal s'identifiquen com a obstacles significatius. La intel·ligència artificial emergeix com una eina clau per millorar l'eficiència educativa i definir les pràctiques futures.

PARAULES CLAU: ciutadania digital, educació a distància, intel·ligència artificial, eines digitals.

PERCEPCIONES DE LOS FUTUROS PROFESORES SOBRE EL EFECTO DEL APRENDIZAJE A DISTANCIA EN LAS COMPETENCIAS DE CIUDADANÍA DIGITAL (EJEMPLO DE TURQUÍA Y ESPAÑA)

Este estudio explora las percepciones de profesores de estudios sociales en formación de Turquía y España sobre la relación entre el aprendizaje a distancia y las competencias de ciudadanía digital. Este estudio explora las percepciones de profesores de estudios sociales en formación de Turquía y España acerca de la relación entre el aprendizaje a distancia y las competencias de ciudadanía digital. Para ello, se utilizó un modelo fenomenológico en un método de investigación cualitativa y se recogieron datos mediante entrevistas semiestructuradas con catorce participantes. Los resultados muestran que ambos grupos hacen hincapié en la necesidad de integrar la educación para la ciudadanía digital en los planes de estudio. Los participantes turcos se centran en temas emergentes como la inteligencia artificial y las tecnologías digitales, mientras que los participantes españoles hacen hincapié en la alineación del aprendizaje digital con aplicaciones prácticas. El aprendizaje a distancia se percibe tanto como una oportunidad, ya que promueve la accesibilidad y la digitalización, como un reto, ya que la motivación y la interacción interpersonal se identifican como obstáculos significativos. La inteligencia artificial emerge como una herramienta clave para mejorar la eficiencia educativa y definir las prácticas futuras.

PALABRAS CLAVE: ciudadanía digital, educación a distancia, inteligencia artificial, herramientas digitales.

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