

# THE ROLE OF ETWINNING TOOLS IN SOCIAL AND CURRICULUM INTEGRATION USING MULTIMODAL COMMUNICATION

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## Abstract

Research shows that learning tools play an important role in social interactions in curriculum integration. Online social integration and interactive modality have been identified as two success factors for online learning from the students' perspective. There is little research on students' perceptions on the use of eTwinning in higher education (HE), and the use of eTwinning tools with the focus on creating a collaborative online learning environment in HE has not been explored to this date. Yet, it may have practical implications for curricular development. Therefore, the aim of the study was to learn whether eTwinning tools can play an important role in social and online curriculum integration in HE. This qualitative study aims at comparing undergraduate students' perceptions from two universities (UCO, Spain, and ULS, Poland) regarding the development of multimodal communication and telecollaborative learning. Key findings emerging from the study suggest the use of eTwinning tools enabled multimodal communication between students and the development of new social practices and social learning strategies between them. A new understanding of eTwinning tools in curriculum integration in high education was raised, and new knowledge developed, which may lead to a higher quality of teaching and learning.

**Keywords:** multimodal communication; eTwinning tools; higher education; social and curriculum integration

## 1. Introduction

Education is changing rapidly in the post-COVID-19 world. More knowledge is needed to be gained about students' learning preferences as it may constitute a valuable source of information in supporting curriculum design, as there still seems to be a disconnect between the online learning and teaching (Kehrwals & Parker, 2019). Students' perspectives can provide

invaluable insight into their educational experiences and expectations (Dawson et al., 2019; Van Wart, Ni, Ready et al., 2020b), which seems particularly relevant when new teaching approaches and technologies are introduced in education (Muir et al., 2022). Despite its importance, students' opinions on the learner-to-learner aspect of the online learning environment have not been investigated sufficiently in research studies (Van Wart, Ni & Medina, 2020a). This may be due to the fact that cognitive presence and instructional materials are identified as having a more significant value to teachers and learners than social interaction in online learning (Asoodar et al., 2016; Sebastianelli et al., 2015), although the latter has also been found noteworthy in other studies (Huertas-Abril & Muszyńska, 2022; Richardson et al., 2017). Learners' perceptions are shaped by their own sense of achievement, technical proficiency, the support they receive, intellectual and emotional stimulation, comfort with the process, and sense of learning community (Van Wart, Ni & Medina, 2020a), but also by convenience and flexibility of online learning (Lee et al., 2017). As Efthymiou and Zarifis' (2021) study on distance education shows, high levels of interaction among learners result in positive attitude, greater satisfaction and course success.

In view of the above, telecollaboration projects mediated by technology may offer such learning opportunities (Helm, 2015), and eTwinning is an interesting initiative to support transnational collaboration (Kearney, & Gras-Velázquez, 2015). Nonetheless, even though eTwinning may not be a new initiative at schools, it has been officially introduced to teacher training institutions in 2017/18 with the main purpose of internalization of HE, but also integrating eTwinning practices within pre-service teachers' curricula (van Gaalen & Feiertag, 2018). Therefore, as all new online tools and pedagogical approaches, the process of integrating eTwinning into higher education (HE) curricula still needs investigating.

The focus of this article is on identifying university students' perceptions of the use of tools for international telecollaboration on online social integration and interactive modalities in an eTwinning project since understanding students' needs and perceptions may lead to course design improvement. Researchers still lack understanding of what student needs are being addressed by the integration of eTwinning within HE courses, and this study aims at adding to research in this respect. The gained knowledge could advance understanding of the role of social and online curriculum integration with eTwinning tools in HE. An international eTwinning project was carried out with pre-service English as a Foreign Language (EFL) and bilingual education teachers at the University of Córdoba (Córdoba, Spain) and the University of Lower Silesia (Wrocław, Poland) in the form of a telecollaborative undertaking called "Learning English with Technology", organized within the European Commission's initiative

eTwinning for Future Teachers (EUN, 2021a). The aim of the project was to involve students in different locations using Internet tools and resources to work together on TwinSpace (eTwinning online platform), exchange ideas, experiences, and resources connected to English language learning, language acquisition, self-study, teaching methods, and approaches as well as online tools. The findings may provide more insight to practitioners and lead to a higher quality of teaching and learning.

This qualitative study aims at comparing pre-service English as a Foreign Language (EFL) and Bilingual Education (BE) teachers' experiences and attitudes from two universities (University of Lower Silesia, Poland, and University of Córdoba, Spain) regarding the use of eTwinning tools, and analyze whether there are similarities and differences based on sociocultural context, approaches to education, or teacher practices since studies show that these independent variables may affect students perceptions on the quality of the course (Van Wart, Ni & Medina, 2020a). More specifically, the following research questions (RQ) are posed:

RQ1: What is the previous knowledge that pre-service EFL and BE teachers have about eTwinning?

RQ2: What are the advantages that pre-service EFL and BE teachers find regarding the integration of eTwinning in the bilingual and EFL curriculum?

RQ3: What are the limitations that pre-service EFL and BE teachers find regarding the integration of eTwinning in the bilingual and EFL curriculum?

RQ4: What are the similarities and differences in the experiences and perceptions of pre-service EFL and BE teachers from ULS and UCO regarding the integration of eTwinning in the bilingual and EFL curriculum?

## **2. Literature review**

### **2.1. Multimodal communication and social integration**

Multimodal communication is not new, even literacy which is based on paper uses visual modes (i.e., illustrations, photographs, charts, maps) to accompany the text (Lotherington & Jenson, 2011). Nowadays, social and technological contexts of communicating and learning are changing. Therefore, different forms of engagement and modalities in meaning-making should be implemented in teaching and learning. The term 'multimodal' refers to the modes of meaning-making (e.g., visual, audio, spatial, linguistic, or gestural) that are integrated to create (electronic) multimedia texts (Kalantizis, Cope, & Dalley-Trim, 2016). As Kress (2010) states,

a multimodal text can convey meaning through a combination of two or more modes, which is beneficial for students who experience challenges in print-based classroom activities (Drewry, Cumming-Potvin, & Maor, 2019; Joucius, 2017). Every mode is part of a message and contributes to it in a different way. It must be highlighted that multimodality itself does not make use of digital technologies; rather, the technologies intensify multimodal possibilities in the act of meaning making in different ways (Dahlström, 2021; Jewitt, 2009). Digitally-mediated, multimodal communication is dynamic and adds a dimension of space (e.g., as a co-writer in texts or an avatar in virtual games) and time by connecting students' interests and lifeworlds (Lotherington & Jenson, 2011; Magnusson & Godhe, 2019). The use of different modalities in meaning-making is a dynamic process of transformation rather than reproduction (Cope & Kalantizis, 2009). It seeks more productive, relevant, creative, and emancipatory pedagogy, in which a student becomes an active designer of meaning, the learning process, and the process of self-re-creation (Cope & Kalantizis, 2009). This process was observable in the study described in this article. Modes chosen by the students participating in the eTwinning project were obtained through culturally-negotiated semiotic resources with the aim to convey certain meaning and, therefore, not static or universal (Liu, 2013; Kress, 2009). Social integration and building a collaborative, online learning environment in the project were encouraged by purposefully designed tasks involving shared learning and collaboration among students across the two countries. Social integration is understood here as involvement in activities (appropriateness of course content) and the presence of positive relationships with peers (Tinto, 1993).

## **2.2. The eTwinning for Future Teachers Initiative**

In the field of Computer-Assisted Language Learning (CALL), 'telecollaboration' refers to "the application of online communication tools to bring together classes of language learners in geographically distant locations to develop their foreign language skills and intercultural competence through collaborative tasks and project work" (O'Dowd, 2013, p. 342). These virtual exchanges can be synchronous or asynchronous and enhance the development of multimodal communication, intercultural communicative competence, learner autonomy, and language development (Helm, 2015). Considering its advantages when supporting foreign language learning and teaching (Huertas-Abril, 2020), eTwinning has emerged as a key tool for telecollaboration (Bozdağ, 2018).

eTwinning is a European initiative for educators launched in 2005, which creates an online community for schools (Kearney, & Gras-Velázquez, 2015). There are over 961,572

school teachers and 222,010 schools across Europe who participate in eTwinning projects with their students (EUN, 2021b). The eTwinning projects aim to create international educational networks which enhance innovation and motivation in online learning and teaching practices (EUN, 2021b). What is noteworthy, Giannis' (2022, p. 14) analysis shows that "countries with lower educational standards make an effort to achieve distinction at international level through eTwinning". According to this author, eTwinning "could serve as a tool for promotion or image making for those countries by placing them in the club of the educationally more advanced countries." Hence, eTwinning can be described as direct-action type of policy work of the European Commission (Galvin, Austin, Revyakina, & McMorrough, 2020, p. 93).

In the field of teacher training, the eTwinning for Future Teachers initiative (EUN, 2021a) was officially first developed in 2012 under the name of eTwinning Teacher Training Institutes Initiative as a pilot programme and was later introduced at teacher training institutions in 2017/18. It is an example of how eTwinning projects can foster the development and practical application of digital literacy skills and the engagement in international collaborative initiatives by pre-service teachers. The aim of the eTwinning for Future Teachers is to provide pre-service teachers with an international and intercultural experience, together with preparing them for work at schools and equipping them with a set of skills and competences necessary for the implementation of eTwinning projects with their pupils (EUN, 2021a). Such international, online initiatives may also help pre-service teachers bridge the gap between their (and later their students') social and academic uses of technology. The increase of studies dealing with the educational potential of eTwinning in different educational settings, from Early Childhood Education (e.g., Redondo et al., 2020; Zamanillo et al., 2018; Gajek, 2017; Papadakis, 2016) to HE (Tonner-Saunders & Shimi 2021; Paz-Albo & López-Cirugeda, 2017; Camilleri & Gritter 2016), shows the interest that this international telecollaborative platform has gained in recent years.

Despite its relevance in teacher training, we have found no studies have investigated the role of eTwinning tools in multimodal communication on HE level. There are studies on intercultural communication and telcollaboration (e.g., O'Dowd & Dooly, 2020), on teacher telcollaboration in foreign language teacher education (Krajka, 2015), but up to the authors' knowledge not on the use of eTwinning tools in constructing collaborative online learning for pre-service teachers, which may give them more insight into how to later work with learners at schools. As a consequence, the goal of this study was to establish whether the use of eTwinning learning tools can construct a collaborative online learning environment and encourage multimodal communication. During the project, pre-service teachers acted as moderators and

shared their expertise with one another through different semiotic resources (spoken/written language, visual, audio, gestural, and spatial) with the use of the eTwinning tools and educational technology.

### 3. Methods

#### 3.1. Research design

Considering this is an exploratory study, the research was designed to perform a qualitative analysis according to the Qualitative Evaluation Checklist (Patton, 2003). The main purpose of a qualitative study is to examine the experiences and attitudes of the participants to understand and/or interpret the phenomena according to the meaning that the participants attach to them (Denzin & Lincoln, 2017). For this purpose, the methodological procedure of content analysis and open coding procedure was used to make a first approach to the phenomenon.

For this exploratory study, the authors adopted the content analysis and open coding procedure to find out categories based on the collected data from the participants regarding the use of eTwinning for the EFL and bilingual classroom. Following this framework, the authors established the stages of the research, from raising research questions to data collection and analysis. The research process is shown in Figure 1.

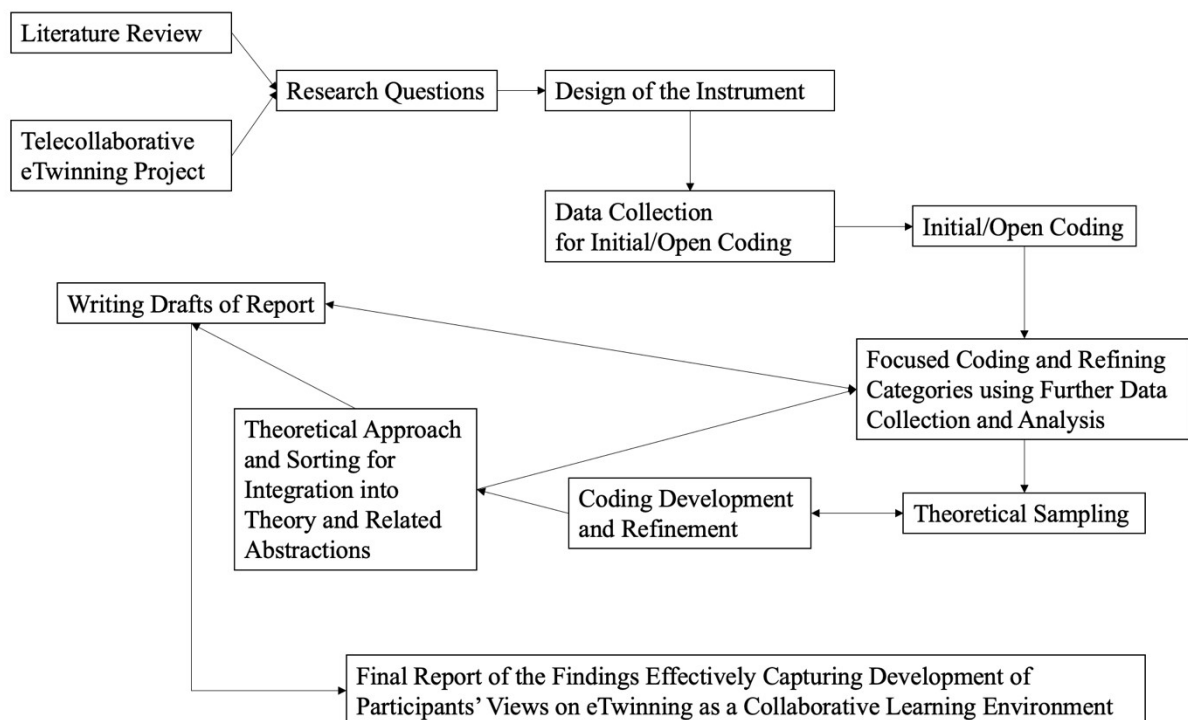


Figure 1. Qualitative research process

The study sought to compare the experiences and perceptions of bilingual and EFL pre-service teachers from each institution with the strengths, limitations and previous knowledge of eTwinning for the classroom, in addition to providing an understanding by comparing their attitudes towards this collaborative learning environment. Four structured questions, used as a guided reflection tool, with identical terminology were given to all the pre-service teachers, which guarantees that all results were comparable (Bogdan & Taylor, 1975).

### **3.2. Context and participants**

A non-probabilistic sample based on convenience was used for the selection of the participants (n=76). The results were obtained from guided reflections made by pre-service EFL teachers from the University of Lower Silesia (ULS) in Wrocław, Poland (n=24), and pre-service bilingual and EFL from the University of Córdoba (UCO) in Córdoba, Spain (n=52). A total of 91.67% (n=22) of the pre-service teachers from ULS identified themselves as female, while 8.33% (n=2) identified themselves as male. On the other hand, 80.77% (n=42) of pre-service teachers from UCO identified themselves as female, while 19.23% (n=10) identified as male. Regarding the nationalities of the participants, all participants from ULS were Polish (100%, n=24), while the distribution of UCO participants was as follows: 94.24% (n=49) Spanish, 1.92% (n=1) Austrian, 1.92 (n=1) Finnish, and 1.92 (n=1) Turkish. The authors conducted this study during the academic year of 2019-2020.

All the participants were selected through criterion-referenced (purposive) sampling techniques (Mertens, 2014). Eligibility criteria were based on proximity and participation in a teaching experience based on eTwinning for Future Teachers (EUN, 2021a) developed by the two participating institutions: “Learning English with Technology”. This project was part of a synchronous online course, although project tasks were done by the students asynchronously.

### **3.3. Instrument and data analysis**

For this study, we used a qualitative method following an exploratory design. The theoretical framework was based on content analysis and open coding procedure, which have been systematically obtained and analyzed using comparative analysis (Chun Tie et al., 2019). The data collection instrument used was a four open-ended question instrument administered in English to pre-service teachers from ULS and from UCO. The questions were:

- (1) What did you like most about the eTwinning project?
- (2) What did you like least about the eTwinning project?



(3) Before doing this project, had you heard about eTwinning? What do you think about this platform?

(4) Do you have other thoughts or comments about eTwinning?

All participants were given a digital worksheet based on Google Forms with the guided reflection. The categories were classified into: (i) advantages, (ii) limitations, and (iii) previous knowledge and use of eTwinning. After the data were collected, the answers were coded, and content analysis was performed to analyze the reflections in order to respond to the four research questions (RQs) posed. Moreover, for confidentiality reasons, the study participants received corresponding codes for use during the study. Finally, all responses were coded and gathered by category using NVivo Plus 12 for Windows, as it allows the researchers to operate with different categories and subcategories that can be compared with each other thanks to the intersection matrices (Valdemoros-San Emeterio et al., 2011).

#### **4. Findings**

Following the content analysis and open coding procedure, the conceptual map with the results obtained after the coding and categorization process was drawn up. An explanation of the coding process was also carried out based on the themes and contents included in the conceptual map, together with their corresponding interrelationships, definitions, and at least one textual example of each category. The core of the responses of the participants' experience of using eTwinning for Future Teachers was reduced into seven key themes (see Fig. 1), and resulted in the complex interaction among them. One theme was found related to previous knowledge that pre-service EFL and bilingual teachers have about eTwinning, connected to RQ1. Four themes, aligned with the advantages of eTwinning for Future Teachers, responded to RQ2. Finally, the other two themes, related to the limitations found related to eTwinning for Future Teachers, portrayed RQ3. Finally, RQ4 will be discussed by comparing the findings of RQ1, RQ2, and RQ3.



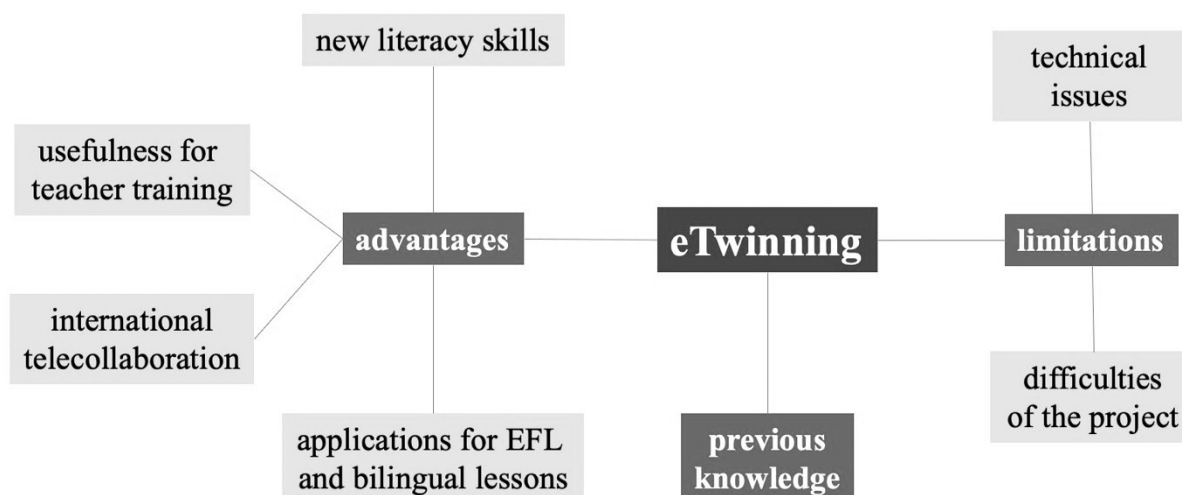


Figure 2. Conceptual map after content analysis and open coding

Findings showed that the majority (89.47%) of the participants from both of the institutions did not have any previous knowledge about eTwinning before this experience but had very positive perceptions after their first practice.

I have never heard about this project. I think it is a great resource for teachers in general and also for kids. I think it is an excellent opportunity to exchange knowledge with teachers, to communicate and to improve the teaching-learning process. Moreover, it is also a good tool for children, because I believe they could learn a lot of English through communication with people from different countries, so they are also improving their social skills. I think this could open their minds and they could understand other cultures, other countries, etc. (Participant 48, UCO)

Before starting the project, I hadn't heard of eTwinning. I think it is a very interesting way of learning a language and making contact with others. (Participant 8, ULS)

When comparing participants from the two institutions, more ULS respondents were familiar with the eTwinning initiative and consequently with eTwinning tools, mainly during their teacher training process.

I started using this platform thanks to my postgraduate studies. I enjoy it very much. In my opinion it is a great opportunity to teach in a "wide range", exchange ideas and raise young, aware citizens of the world. (Participant 4, ULS)

I am using this platform since last year and I thoroughly love it. (Participant 2, ULS)

Nevertheless, only one UCO participant had used eTwinning before this telecollaborative virtual exchange, but when she was a student.

I had heard about it because when I was in fourth grade of high school I traveled to London with my classmates and we attended some English lessons there. The project was E-twin, I still have the certificate. (Participant 15, UCO)

As shown in Figure 2, in the category ‘Perceived advantages of eTwinning for Future Teachers’, four themes were coded: new literacy skills, usefulness for teacher training, international telecollaboration, and applications for EFL and bilingual lessons.

Regarding the development of new literacy skills, a positive impact derived from the use of eTwinning among participants, it can therefore be highlighted, as it was considered an enriching learning experience:

Many different courses propose different tasks to do in order to apply the Bologna Plan. Many of them are useless in the sense that they do not prepare student teachers for our professional life at all. This project has really developed many competencies that are necessary in our future career. This project has made me feel satisfied and proud. (Participant 3, UCO)

This [eTwinning] creates a great opportunity to cooperate with people from many countries and cultures and also for self-development. (Participant 6, ULS)

In this light, the development of linguistic skills via the improvement of multimodal communication and digital literacy is emphasized by most of the respondents, and more specifically, “the possibility of talking in a foreign language and developing speaking skills” (Participant 12 – ULS) and “communication skills in different ways” (Participant 11 – UCO) as “this platform helps to develop language skills” (Participant 23 – ULS). Participant 26 (UCO) states that “The best part of this project has been the opportunity to apply our skills in English in such a real situation. It was a clear motivation to improve our speaking skills.”

Paying special attention to digital literacy, it is interesting to pinpoint the benefits identified by UCO participants:

This experience has allowed me to improve my digital competence and become more interested in it. Also, as in some previous projects, I have really enjoyed carrying out this project, as it is totally different from many of the others. I really like innovation and interaction with other people. (Participant 7, UCO).

I liked the way in which this course is focused, because apart from improving my English, I have improved my digital competence as a teacher, because I have discovered a lot of new platforms, like eTwinning, Genially, Loom, and they can be really useful for me. (Participant 12, UCO).

It needs to be added that all students saw digital literacies as means for multimodal communicating with others and expressing their ideas, whether with the use of writing, speaking, animation, video, or images. It was noticeable that younger students used more images, sound, and pictures than their older colleagues, who seemed to have struggled more with technology.

Moreover, online social integration, interpersonal and intercultural communicative competence was emphasized as a relevant skill put into practice thanks to the learning experience based on eTwinning for Future Teachers:

[What I like most about eTwinning for Future Teachers was] Getting to know different cultures better by talking on-line to Spanish students. (Participant 4, ULS)

What I liked the most about this project is that we have had the opportunity to get to know people from different cultures. In this way, we have enriched ourselves from other peoples' ideas and traditions, which is quite beneficial in order to open our minds. (Participant 30, UCO)

Regarding the usefulness of eTwinning for Future Teachers, participants considered it a relevant international initiative to improve teachers' performance and (future) professional development: "In my opinion it is the best platform for teachers to be active and progress their creativity. It's great opportunity for professional development" (Participant 12 – ULS); "What I like most about eTwinning is the possibility of sharing our experiences as future teachers with students from other universities" (Participant 43 – ULS).

I had not heard of the eTwinning platform before, but thanks to the project I am discovering the possibilities of this platform. I love the online training and seminars. I am going to use the eTwinning platform in my kindergarten work and create a project with another kindergarten (Participant 20, ULS)

Focusing on international telecollaboration, two subcodes were identified: international collaboration and multimodal communication, and telecollaborative skills. On the one hand, regarding the former, both UCO and ULS participants emphasized "communication with people from another country and the knowledge we can share in community" (Participant 14 – UCO), "the possibility to exchange experiences with people from different countries and backgrounds" (Participant 6 – ULS), "contacting with people from other countries because I had the opportunity to know their stories, some aspects of their cultures and, the most important fact, I talked in English, so it helped me to improve and loss the embarrassment to talk in public" (Participant 6 – UCO). On the other hand, regarding the latter, Participant 8 (ULS)

mentioned that “I liked that we could meet Spaniards and work with them and that we could exchange various information related to education, etc.” Similarly, Participant 47 (UCO) highlighted: “What I liked most was interacting with partners from another country such as Poland and learning things both from their city and from teaching there thanks to the Skype meeting we had.”

Finally, concerning the applications of eTwinning for EFL and bilingual lessons, the participants stated that their participation in the project “Learning English with Technology” has allowed both UCO and ULS participants to “learn interesting English language learning techniques” (Participant 8, ULS), “find new really good resources and tools” (Participant 23, ULS), “exchange of information, getting to know helpful tools and brainstorming teaching methods” (Participant 4, ULS), and “know more about other educational systems and about the teachers’ life” (Participant 32, UCO).

What I liked most was the experience of meeting new people and sharing knowledge about teaching in both countries. In addition to this, we have exchanged resources that will serve me in my future as a teacher (Participant 36, UCO).

The last category found in this study was perceived limitations of eTwinning for Future Teachers, where two subcodes were identified: technical issues and difficulties of the project. Regarding technical issues, several UCO participants mentioned that the eTwinning platform is not easy to use. Participant 36 (UCO) stated: “At first I didn’t know how to use eTwinning, it was difficult for me to find the pages or chats. I think it is a bit complex.” Similarly, Participant 1 (UCO) mentioned: “At first it was a bit frustrating because I didn’t understand the platform, but then, when I understood it, I realized that it was quite easy.” Moreover, only UCO participants alluded technical issues related to Internet connection: “I only was sad about the bad Internet connections and problems with Skype that occurred every now and then I could not hear anything” (Participant 21, UCO). Only one ULS participant mentioned a technical issue: the “limit of the size of the files in the uploaded materials” (Participant 4, ULS).

Regarding the difficulties encountered to carry out the project “Learning English with Technology”, both UCO and ULS participants regret the limitations of time to do the different tasks, and especially the Skype meetings: “if we had had more weeks to continue with the project we could have gone deeper into some aspects such as exchange of our first language or something similar” (Participant 20, UCO); “If there were more meetings required we would gain a chance to make closer connections and do something together in the future” (Participant 6, ULS).

Participants also mentioned that telecollaboration with peers who do not know each other beforehand is not always easy, especially when English as language of communication is essential: “I was nervous before the conversation with Spanish girls because I was afraid that I wouldn't understand them, it was a problem” (Participant 23, ULS); “Although the international meetings are beneficial, it may be difficult to arrange it, and people may feel uncomfortable talking to unknown people” (Participant 4, UCO). Despite this initial uncertainty or reluctance, the final result has been positive, as stated by Participant 35 (UCO): “Firstly, I didn't like the idea of talking with unknown people, but the video call was so funny!”

Finally, and despite these difficulties, the general perception of eTwinning is positive: “I have enjoyed this project, it has been very innovative and different from what we are used to do” (Participant 26, UCO); “I will definitely participate in future projects” (Participant 15, ULS); “I'm already thinking about my own project with another kindergarten” (Participant 18, ULS).

## **5. Discussion**

There are numerous opportunities to use eTwinning in pre-service teacher training, especially in the contexts of EFL and bilingual education, as this initiative enhances virtual exchanges among students strengthening their language proficiency and meaning making skills in a foreign language, as well as their intercultural communication and intercultural awareness. However, regarding the previous knowledge that pre-service EFL and bilingual teachers have about eTwinning (RQ1), it is remarkable that almost all participants in both institutions were not familiar with this European initiative (RQ4). The reason behind this finding may lie in the fact that even though the eTwinning training courses and seminars are becoming common at different levels of non-university education (Paz-Albo & López-Cirugeda, 2017), their implementation at higher education level is still limited (Bonet et al., 2019). Despite being a new experience for the participants, their feedback after having been involved in an eTwinning project was highly positive, in line with previous studies (Paz-Albo, & Hervás, 2017).

Regarding the advantages found on the integration of eTwinning in the bilingual and EFL classroom (RQ2), the participants highlighted the development of new literacy skills, a positive impact derived from this multimodal telecollaboration learning experience. Participants indicated that online communication was a good medium for social interaction, which is important, because the development of social practices and social learning strategies is essential in the process of engaging with new literacies (West, 2019). These findings are in line with previous research, which underlines that such initiatives can help develop teachers' digital

literacy (Gülbay, 2018), but also interpersonal, social and professional interaction (Vrasidas & Glass, 2004; Wu et al., 2014), and reflection on teaching practice (Hawkes & Romiszowiski, 2001). Participants emphasized the importance of eTwinning projects in the teacher training process. It seems that projects that allow to view learning through both the lens of a teacher and of a learner are of great value to pre-service teachers (Tonner-Saunders & Shimi 2021).

The relevance of international telecollaboration found is in line with highly consolidated research that states that “Participation in interactional activities has been argued to be an intrinsic part of learning wherein professional knowledge is co-constructed, negotiated and improved” (Wu et al., 2014, p. 230). Moreover, virtual exchanges and telecollaboration based on eTwinning can foster the formation of communities of practice to promote teachers’ professional development (Riordan & Murry, 2012), and they are able to adapt and engage themselves and students in language learning and teaching despite the potential difficulties (Huertas-Abril, 2020).

On the other hand, respondents found certain limitations regarding the integration of eTwinning in the bilingual and EFL classroom (RQ3). Only UCO students found technical issues (RQ4), but participants from both institutions mentioned some specific difficulties found when developing the project. The limitations found were related to time constraints, which resulted in absence of strong ties between international participants. Nevertheless, following Haythornthwaite and De Laat (2010), both weak ties between new acquaintances and strong ties in long-lasting collaborations are found to play key roles when gaining access to new knowledge and maintaining commitment to telecollaboration activities in online communities, which is probably why the feedback from the participants was highly positive, in line with previous studies (Paz-Albo & Hervás, 2017).

In the light of the findings, it is undeniable that diversity is universal in today’s world, and a multiliteracies approach guides diversity into rather than out of literacy education (Dooley, 2008). Multimodal communication using a foreign language and eTwinning tools allows students to learn and communicate with learners from another country using different modalities of text and gain more confidence in the process.

## **6. Practical implications**

There is no doubt that digital technologies are seen as an integral part of today’s learning process (EC, 2019). They are changing the reading and writing practices in native and foreign language learning, leading to the development of new literacies and the use of different modalities in meaning-making, but also, providing instant help in obtaining information on

pronunciation, for example. This with no doubts leads to greater learner autonomy. In this light, teachers should be aware that “literacy teaching is not about skills and competence; it is aimed at creating a kind of person, an active designer of meaning, with a sensibility open to differences, change and innovation” (Cope & Kalantzis, 2009, p. 175). Teaching cannot continue to be a process of transmission, as this creates uniformity in students (Cope & Kalantzis, 2009). Teachers should carry out a pedagogy of multiliteracies involving not only situated practice and overt instruction but also critical framing and transformed practice (Kinzer & Leu, 2017). We envisage that the EFL and BE pre-service teachers participating in eTwinning telecollaboration projects at university level will be able to organize their school practice more effectively, understanding better how to integrate social and academic use of technology, allow new literacies in their classes and create opportunities for their students to integrate multiple modalities in expressing themselves in a foreign language. Direct experience of using technology in a meaningful way should help them apply their learning to their teaching (Jaipal-Jamani & Figg, 2015), but only if they find it important for teaching (Ertmer & Ottenbriet-Leftwich, 2013; Miranda & Russell, 2012). In general, as research shows, educators are more inclined to integrate technology in their classroom if it is part of the curriculum (Hutchison & Reinking, 2011), including HE institutions. Therefore, the new understanding of curricular integration of eTwinning tools within university courses was developed, and eTwinning telecollaboration projects will become part of the courses for pre-service teachers also in the following years at both universities participating in this study, to improve the quality of EFL and bilingual teacher education.

One obstacle that teachers face is that schools and classrooms are not usually organized in ways allowing the easy use of technology and instruction (O’Brien & Scharber, 2008). Therefore, classrooms need to be reorganized to facilitate uses of technology and to enable students to work within and beyond classrooms (Kinzer & Leu, 2017) in order to meaningfully engage in communication as it exists in the social world (Lotherington & Jenson, 2011), and to gain the ability to effectively select the tools and forms of modality that meets their literacy and communication needs (West, 2019). Failure to include multimodal resources that students use in their everyday lives in the classroom means that we ignore the modes students already use to make meaning (Street et al., 2009). However, educators also need to be prepared that their role as moderators of student learning will not only require a thoughtful plan of how they want students to engage with new literacies but also the readiness to become learners alongside their students who are often more proficient in digital tools than them (West, 2019).



## **7. Conclusion**

The findings presented in this paper suggest that this approach was successful in taking the main emphasis from the digital tools to situational practice, which gave students' opportunities for new ways of social learning, meaning-making and multimodal communication in a foreign language, but also encouraged multiple perspectives and representations of concepts and content, self-regulation during learning and knowledge construction process (students decided how they would learn), and embedded learning in social experience. In view of the above-mentioned, this study provides a basis for certain general implications for how to strengthen teacher training for EFL and BE education pre-service teachers, which could be further explored in the future.

The findings, however, should be interpreted in the light of three limitations. First, the study is qualitative, and quantitative data could complement the qualitative findings and as warrant more potential independent variables. Second, the qualitative findings reported here were only based on self-reported data so that they may be affected by respondents' subjective opinions about the phenomena. Third, due to the nature of an exploratory study, only participants from two universities from two different countries (ULS in Poland and UCO in Spain) were considered as the target population. The findings may then not be applicable to pre-service teachers from other institutions, backgrounds, or contexts.

Future research should consider some key needs derived from the existing findings and gaps of this study. Further research on pre-service teachers' opinions about usability and preferences regarding eTwinning in EFL and bilingual education should be explored in other contexts and institutions, recruiting participants from different educational and sociocultural backgrounds to perform comparisons with this research. Moreover, future studies should also consider obtaining data through additional sources to obtain more reliable and comparable data.

In-service teachers' perceptions towards eTwinning collaborative online environment and virtual exchanges using eTwinning tools should be further analyzed so that the effects of its implementation in HE curriculum could be more thoroughly studied. To facilitate its implementation in international EFL and bilingual contexts in HE, it would be necessary that researchers suggested design principles and models that were empirically proven in order to provide teachers with a general framework of use, resulting in providing access to appropriate personalised learning resources and meaningful and authentic (multimodal) tasks. This would be directly connected to teacher training. Now, it is the time to support the use of educational technology in initial teacher training; otherwise, it may be difficult to connect teachers' professional development with the reality at schools.

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