ETWINNING IN ARMENIAN ENGLISH AS A FOREIGN LANGUAGE TEACHERS' TEACHING AND STUDENTS' LEARNING PRACTICES IN THE LIGHT OF 21ST CENTURY SKILLS

ABSTRACT

This study aimed to investigate the role of eTwinning in Armenian English as a Foreign Language (EFL) teachers' teaching and students' learning practices in the light of 21st century skills. Although many studies have been conducted on eTwinning, this is the first to explore Armenian teachers' and students' perceptions of eTwinning. The study also evaluated the role of eTwinning projects in developing 21st century skills such as communication and collaboration, critical thinking and problem-solving, creativity and innovation, digital literacy, and particularly Information and Communications Technology (ICT) tool use in EFL teachers' teaching and EFL students' learning practices.

The participants included 16 EFL professionals and 67 students from various regions of Armenia. All the participants had been awarded at least one European Quality Label (EQL) and were selected by non-probability purposive sampling.

A mixed methods research (MMR) design was chosen to explore the vast experiences of EFL teachers and their students in eTwinning projects. Quantitative and qualitative data, which were gathered through surveys and semi-structured interviews, were analysed descriptively and/or categorised into themes.

The results demonstrated that eTwinning promoted particular 21st century skills, such as collaboration and communication, cross-cultural understanding, and creativity and innovation. It also supported innovative teaching, fostered student voices, and ensured student-driven learning processes within the framework of 21st century skills. However, the study could be conducted on a larger scale (on a national and/or European level) involving a larger sample. Moreover, apart from online surveys and interviews, the research instruments could also include classroom observations to see teachers and students working on a specific project, as well as interviews with students. Finally, future research could include teachers of various disciplines, other than EFL.

The study also provides some practical recommendations for its stakeholders. To improve eTwinning in the scope of teaching and/or developing 21st century skills, there is a need to integrate eTwinning into national curriculums, to increase its visibility on a national level and to think of new mechanisms to motivate more teachers. Various seminars, workshops, online tutorials, competitions, as well as exchange programmes are another way of fostering students' active participation in future projects.

Keywords: eTwinning, European Quality Label, 21st century skills, innovative teaching.

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INTRODUCTION

The 21st century has brought about significant changes to the world, and the world of education is no exception (Zajda, 2010). Technological innovations in this field are abundant and call for advanced approaches and methods in teaching and learning. Information has become the core component of education, but the 21st century requires teachers and/or students who can not only process that information very rapidly, but most importantly understand and analyse it and construct new knowledge. In this respect, for education systems and especially teachers and students to be able to walk along this path, it is vital to incorporate 21st century skills (Partnership for 21st century Learning; Rich, 2010; Wagner, 2008) of collaboration and communication, creativity and innovation, critical thinking and problem solving, technological literacy, multiculturalism, and teamwork in the teaching and learning processes.

Foreign language learning no longer requires mere grammar rule acquisition or its correct application in contexts and written tests (Akdemir, 2017). In fact, languages enable people to communicate and negotiate within social contexts, thus creating a community and a unique culture (Øverland, 2015). Such a community of practice can be built within the framework of the eTwinning programme, which is a platform for integrating 21st century skills in cooperation with schools across Europe (Bengtsson, 2016).

LITERATURE REVIEW

21ST CENTURY SKILLS

Globalisation has promoted more innovative and collaborative ways of transferring information over the internet. It has enabled people from various backgrounds to interact with each other online, to collaborate through different projects, and gain important knowledge, skills and experience from the collaboration. However, it seems that the recent innovations and technological advances that exist in our everyday life have not yet penetrated our education systems and school curriculums. For learners in educational institutions to benefit from the changes, educators should be the first to follow these changes and implement the latest technological innovations (Laurillard, 2008).

According to Chalkiadaki (2018), nowadays huge investments happen in education because countries believe that education will eventually lead them to sustainability and deliver long-term economic well-being and growth. Yet, despite the changes in the global world of work, education has remained the same and does not incorporate higher-order cognitive processes like critical thinking, problem solving, curiosity and adaptability (Keengwe et al., 2008; Kozma, 2003; Zhao, 2009). Gardner (2008) and Pink (2005) believe that 21st century education requires new ways of thinking and learning.

The 21st century is an information age (Prasetyo, et al., 2021), and to enable learners to adapt to the current realities, the education system has to be modified to develop higher-order thinking skills, problem solving skills and competences for all students. In order to have personally successful, economically productive, and actively engaged citizens, education systems should integrate skills and competences that are broadly defined as '21st century skills' into the core curriculum (Anagün, 2018).

Different researchers, educators, as well as various educational organisations and bodies have come up with their own frameworks of 21st century skills such as the North Central Regional Educational Laboratory's (NCREL) 'enGauge' (Lemke, Cheryl, 2002; enGauge 21st Century Skills as cited in Chalkiadaki, 2018), Partnership for 21st century skills (P21 Partnership for 21st century Learning, 2015), International Society for Technology in Education (2007) (ISTE).

21ST CENTURY SKILLS AND ETWINNING

CULTURAL AWARENESS IN ETWINNING

In the 21st century, students connect to the world from different perspectives, which requires them to be open-minded and to possess multicultural and cross-cultural understanding enabling them to accept diversity, respect differences and be tolerant towards various cultures (Lakki, 2018). In addition, according to the Common European Framework of Reference for Languages (CEFR) one of the goals of learning a foreign language is to become aware of various cultures by means of developing intercultural communicative competences (CEFR, 2001). Learning a language does not merely mean knowing words, phrases and grammar rules, but it also involves culture, and in this respect, eTwinning aims to develop students' intercultural awareness, their understanding of other cultures and the diversity of European society (Council of Europe, Council for Cultural Co-operation, Education Committee, & Modern Languages Division, 2001, as cited in Bengtsson, 2016).

As a platform for telecollaboration, eTwinning contributes greatly to European education, especially in the field of languages and cultures (Crawley et al., 2008). Similarly, eTwinning is a great resource for teachers to learn new things about Europe and establish cross-cultural interactions with their European colleagues (Manfredini, 2007, as cited in Acar & Peker, 2021). In fact, eTwinning projects not only twin schools and students in Europe and equip them with technological knowledge and skills necessary for the 21st century, but most importantly they raise awareness about multicultural society (Fat, 2012, as cited in Camilleri, 2016). Furthermore, one of the most important components of eTwinning projects is language and culture because while communicating with each other, students discover culture (Bengtsson, 2016; Camilleri, 2016). In fact, eTwinning projects provide many opportunities for intercultural exchange for both language teachers and students (Acar & Peker, 2021; Akdemir, 2017; Øverland, 2015) in the sense that they can reflect on similarities and differences in lifestyles and cultures and explore different societies, thus raising their awareness of cultural diversity (Akdemir, 2007; Cammilleri, 2016; Scott, 2009).

In the study by the European Commission et al. (2013), over 60% of participants reported a significant improvement in their knowledge about European cultures. Other studies have been conducted to show that cultural awareness is not only about teaching students new skills and knowledge necessary in the 21st century, but it also helps them to be more responsive and tolerant toward other cultures (Henry & Lima, 2012). As various researchers have pointed out, eTwinning projects develop learners' global awareness, as well as their intercultural competence through the programme's inclusive learning and lifelong practice (Barret et al, 2014; Chu et al., 2017; Scott, 2015 cited in Lakki, 2018). Another report by the Central Support Service 'eTwinning: Adventures in language and culture' underscores that eTwinning projects always imply exchange of cultural traditions

and values, in other words, both teachers and students exchange their 'cultural capital', their historic, linguistic, artistic, social and cultural elements (Crawley et al., 2008). Another research indicates that eTwinning has a significant role in promoting global education through its global/intercultural awareness since both teachers and students have reduced stereotyping and enhanced empathy through their interactions (Camilleri, 2016).

COLLABORATION AND COMMUNICATION IN ETWINNING

In order to survive in this global workforce and to tackle the problems in this culturally diverse world (Heinrichs, 2016; Mercury & Ramos, 2014), students should exhibit skills such as collaboration, teamwork (Wilson-Ahlstrom, Yohalem, Dubois and Ji, 2011 as cited in Chalkiadaki, 2018) leadership, entrepreneurship, effective oral and written communication (Wagner, 2013; Trinidad et al., Teruggi & Zuccoli, 2015 as cited in Chalkiadaki, 2018) and what is more important, multilingual communication (Kaume-Mwinzi, 2016; Chalkiadaki, 2018). To be able to successfully collaborate and cooperate in such multilingual societies the future generation needs to be open-minded and possess teamwork skills (Annaniadou & Claro, 2009; Heinrichs, 2016). Moreover, the 21st century requires students to collaborate not only in their classrooms but also in online environments with the help of various online technologies and platforms.

 The two primary goals of eTwinning are (a) school collaboration across the European Union (EU) with the help of Information and Communication Technologies (ICT) and (b) promoting language learning and cultural exchange across the EU (Bengtsson, 2016). In fact, eTwinning promotes students' interaction and collaboration via social media, chat rooms, blogs, forums and instant messaging. This kind of online collaboration and sharing of ideas creates a realistic connecting environment in the EFL classroom (O'Dowd, 2007; Scott, 2015, as cited in Lakki, 2018), which accompanied by authentic teamwork can benefit the community as a whole (Rheingold, 2008 cited in Lakki, 2018). In a study conducted by the eTwinning Central Support Service (CSS) around 80% of the teachers agreed that eTwinning had improved not only their own collaborative skills and ability to work with other teachers but also those of their students, since to solve a problem collaboratively, the students were working in small groups (Gilleran, 2019; Kearney & Gras-Velázques, 2015). According to the 2019 eTwinning report more than 92% of students viewed eTwinning as an engaging activity that improves personal relations among students and promotes student collaboration (Gilleran, 2019).

CRITICAL THINKING AND PROBLEM SOLVING IN ETWINNING

Learning helps learners to make sense of the world around them in diverse ways, which is a skill that requires critical thinking and analytical reasoning (Bloom et al, 1956 as cited in Lakki, 2018). According to Bloom's taxonomy, after acquiring knowledge, understanding and applying it in practice comes the stage where learners start to analyse that information, compare and contrast it, and finally evaluate and synthesise it (Bloom, 1986). These higher-order thinking skills foster critical thinking, reasoning, decision-making, and problem solving which will help learners to analyse different complex situations, solve problems and overcome real-time difficulties later in the real world (Lakki, 2018). A study by the eTwinning Central Support Service (CSS) found out that, according to the teachers, the top skills eTwinning had a significant impact on were problem solving and teamwork followed by the development of foreign language skills (Kearney & Gras-Velázques, 2015, as cited in Bengtsson, 2016). In another study, participants claimed that eTwinning, which

European Commission

is a form of project-based learning, developed their problem solving (Coutinho & Rocha, 2007) and critical thinking skills, which are essential for dealing with real-life situations in the future (Lakki, 2018).

CREATIVITY AND INNOVATION IN ETWINNING

In the 21st century, students should be able to create in both digital and non-digital contexts. But no matter what the context is, creativity enables learners to find solutions to many real-life problems and develop their full potential which might lead to innovative accomplishments (Pellegrino & Hilton, 2012, as cited in Lakki, 2018; Trilling & Fadel, 2009). EU policies regard creativity as the main source of innovation, which in turn is the main force to trigger sustainable economic development (Council of the European Union, 2008b, 2009b as cited in Cachia et al., 2010). Furthermore, creativity greatly influences learning, supports and enhances self-learning, learning to learn and life-long learning skills and competences, and is defined as a form of knowledge creation, a skill and/or an ability to generate new ideas (Cachia et al., 2010). Accordingly, creative learning focuses on thinking skills and therefore, empowers learners to go beyond notional acquisition (Cachia et al., 2010). During the 2009 European eTwinning prize ceremony Ján Figel, the Commissioner for Education, Training and Culture highlighted the role of creativity and innovation in education, stating that 'the becoming increasingly success of eTwinning is an example to foster creativity in education' (European Commission, 2009, as cited in Papadakis, 2016). Web-based school collaboration, in this case eTwinning, not only enables collaboration, but also creates a playing environment where students can express their creative ideas (Gouseti, 2013) since like all other e-learning applications, eTwinning increases student engagement (Davies & Graff, 2005; Liaw, 2008; Wong, 2013 as cited in Akdemir, 2017).

It is suggested that eTwinning is an open, safe, free education network that enables innovation in learning and teaching practices and brings the European education community together (Papadakis, 2016 as cited in Acar & Peker, 2021). For many teachers eTwinning is a means to make the learning-teaching process more effective and engaging, as well as to get new ideas and use new methods, while at the same time providing opportunities for lifelong learning and innovation (Acar & Peker, 2021). Lastly, according to the eTwinning 2021 report, pupils' active participation, motivation and learning is fostered by innovative pedagogical approaches which are introduced and promoted by eTwinning (Licht et al., 2020).

DIGITAL LITERACY AND ETWINNING

In the era of rapid technological advancements, the number of skills expected from students is also swiftly increasing (Çevik, 2021). Digital literacy is one of these valuable skills, which refers to the use of computers, social media and the internet. In general, to be digitally literate means to possess such skills as information literacy (to be able to research the necessary information), media literacy (to be able to critically analyse the media), visual literacy (to be able to present multimodal texts), and community literacy (to enable students' public participation through their self-expression) (Rheingold, 2008, as cited in Lakki, 2018).

The 21st century is defined as the era of the knowledge society, where the role of technologies in all areas of our lives is increasing day by day (Alcaraz Mármol, 2020). As a result, technologies not only impact the structure of education systems, but also the

educational activities in the institutions (Pala, 2006 cited in Çevik, 2021). It is stated in the International Society for Technology in Education (ISTE) that 21st century empowered learners should use technology to set and achieve their personal learning goals, build networks and seek feedback to improve their practice (ISTE, 2015). In fact, technology is an indispensable part of eTwinning since it encourages students' and teachers' interaction and collaboration (Camilleri, 2016). Moreover, in the 21st century, the main purpose of eTwinning is not only to enable twinning between students, teachers and their schools in Europe, but most importantly to develop new and innovative ways to use ICT by equipping young people with the necessary technological skills for online collaboration (Fat, 2012, as cited in Acar, & Peker, 2021). The various educational web applications which are widely used in eTwinning, like blogs, Padlet, Wikis, Linoit, podcasting and social networking, allow participating teachers and students to use multiple media and come up with their own personalised output (Lakki, 2018).

A study, in which a particular eTwinning project was to enrich English lessons with web 2.0 tools, suggests that the integration of various technologies contributes greatly to the professional development of teachers (Akinci, 2018, as cited in Acar & Peker, 2021). In a similar study Holmes (2013) found out that the participating teachers had increased their web 2.0 tools awareness. Moreover, eTwinning helps students to see the real nature of technology, to integrate it into their collaborative works, to use it to find information, check whether that information is true or fake, and of course have some fun with educational games (Gilleran, 2019).

METHODOLOGY

THE CONTEXT

eTwinning is a free online community for schools in Europe and some neighbouring countries that allows teachers to find partners and collaborate on projects within a secure network and platform. The programme was launched in 2005, and Armenia became a member of eTwinning in 2013. Only this year more than 691 Armenian schools and 2 233 teachers of different disciplines have participated in eTwinning projects with a total number of 2 256 projects among which there were 34 National and 24 European Quality Labels. In addition, there are more than 20 schools from different regions of Armenia that have been awarded eTwinning School Labels. Moreover, in 2019 Armenia was among eTwinning European Prize winners in the 0-6 age category.

The research context includes public schools in six different regions of Armenia, namely: Yerevan, Ararat, Armavir, Lori, Kotayk and Tavush where eTwinning projects have been recently conducted. The study employed a non-probability purposive sampling technique. The participants were selected according to their eTwinning project background, that is to say, they had to have at least one European Quality label awarded by the grand jury composed of members of the Central Support Service (CSS) and representatives from the European Commission which indicates that they had successfully completed an international project in collaboration with at least one European partner school. This suggests that the participants were selected non-randomly because they were 'information rich' (Patton, 1990, as cited in Onwuegbuzie & Collins, 2007) and corresponded to the researcher's needs and specific characteristics (Mccombes, 2021).

PROBLEM STATEMENT

A lot of research has been conducted to investigate the impact of eTwinning on school curriculum integration (Crisan, 2014; Gajek, 2018), teaching practices (Akdemir, 2017; Crisan, 2013;), teachers' training needs and their professional development (Acar & Peker, 2021; Holmes, 2012; Holmes, 2013; Silva, 2011). Though Armenian teachers and schools have been integrating eTwinning activities for 10 years already, there has never been any research conducted to explore teachers' and students' perceptions of eTwinning and evaluate whether and how eTwinning projects develop teaching and learning practices in the framework of 21st century skills. This study aims to explore the role of eTwinning in Armenian EFL teachers' teaching and students' learning practices in the light of 21st century skills. It aims to examine whether and how eTwinning helps to develop the various 21st century skills such as communication and collaboration, critical thinking and problem solving, creativity and innovation, multiculturalism and cross-cultural understanding, digital literacy, and particularly ICT tool use.

The research findings can be beneficial to all its stakeholders, especially, the teachers who are integrating eTwinning in their teaching processes. Also, the study can benefit eTwinning Plus Armenia which is the National Support Organisation (NSO) and thus promotes eTwinning action in Armenia by providing constant guidance and advice for its users, organising various activities and professional development workshops for teachers of various disciplines involved in eTwinning. Finally, the study provides practical recommendations on how to improve eTwinning in the scope of teaching and/or developing the 21st century skills of communication and collaboration, creativity and innovation, critical thinking and problem solving, digital literacy and ICT tools, and multiculturalism.

In this regard, the present study aims to address the following research questions:

- RQ1. How does eTwinning promote 21st century skills in EFL teachers' teaching practices?
- RQ2. How does eTwinning promote 21st century skills in EFL students' learning practices?

RESEARCH DESIGN

The current study followed a mixed method research design with sequential implementation of the quantitative and qualitative components (QUAN → qual) meaning that one data collection method (QUAN) was followed by the other (qual) and had priority or greater emphasis than the other in the study (Kroll et al., 2005). Since the interviews were intended to provide insight into survey findings, they were conducted subsequent to the analysis of the survey data (sequentially) (Kroll & Neri, 2009). While qualitative research typically answers the research questions that address 'how' and 'why', quantitative research normally addresses 'how often' and 'how many' (Malina et al., 2011). The validity and the reliability of the collected data are fostered by means of triangulations through teacher questionnaires, student questionnaires, as well as teacher interviews. This suggests that there are logical relations between qualitative and quantitative findings and the theoretical concepts in the study (Erzberger and Kelle, 2003 as cited in Östlund et al., 2011).

PARTICIPANTS

The participants were 16 EFL teachers registered in eTwinning who had been awarded at least one European Quality label and 67 EFL students chosen based on at least one European Quality Label. Figure 1 shows the research participants' distribution among the five provincial cities in Armenia, including Yerevan.

Figure 1: Demographic Distribution of the Participants

Demographic distribution of the participants
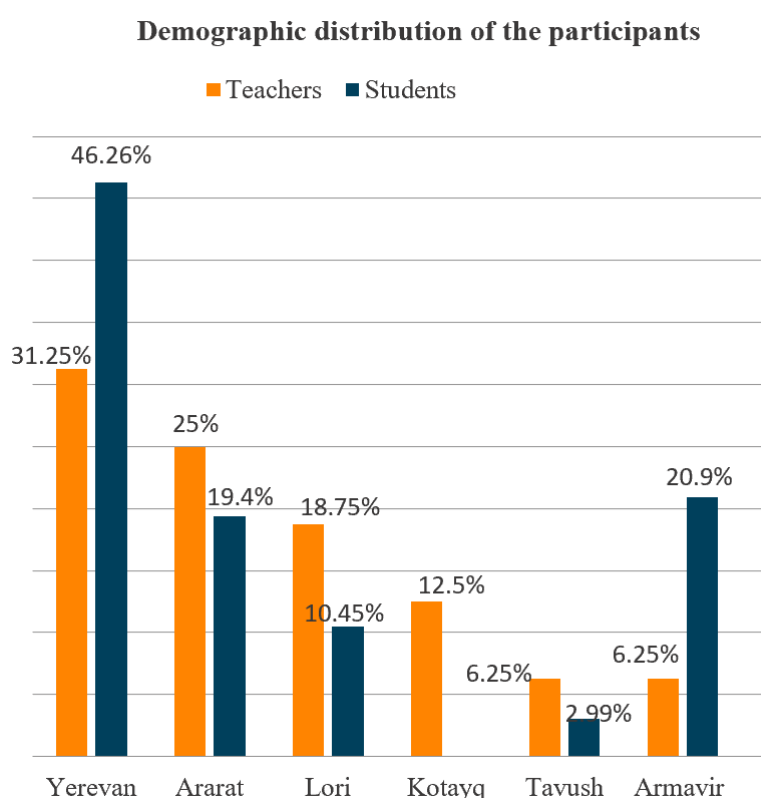
It is obvious from the figures that almost one-third of the participants were from the capital city with 5 teachers and 31 students, respectively. A total of 7 teachers and 20 students from Ararat and Lori provinces participated in the study. The number of EFL teachers and students were relatively low in Kotayq, Tavush and Armavir provinces.

Figure 2 presents the number of years the teachers and students had been registered on the eTwinning platform.

Figure 2: The Number of Years Registered in eTwinning


The number of years registered in eTwinning
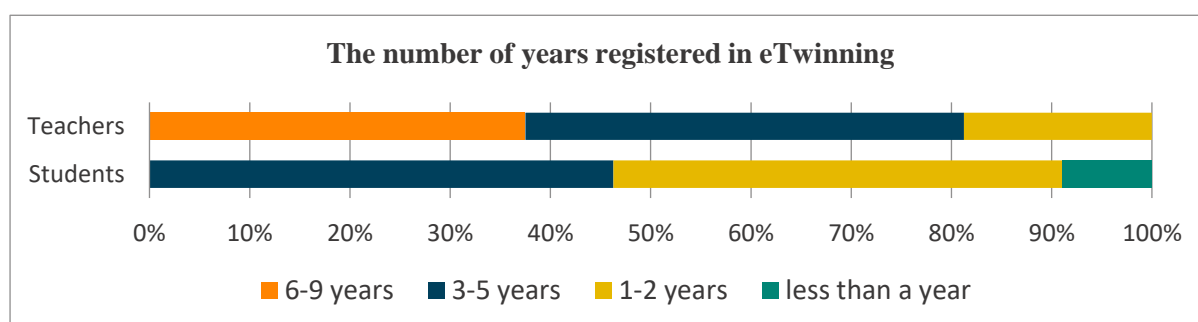
It can be seen that more than 36% (N=six) of the teachers had been registered in eTwinning for over 6-9 years, while 44% (N=seven) of them had been registered for 3-5 years, and lastly 20% (N=three) registered in eTwinning almost 2 years ago. On the other hand, more than half of the student respondents registered in eTwinning 3-5 years ago and the rest did it over 1-2 years ago. There were even students who started doing eTwinning this year.

As we can see from the bar chart presented in Figure 3, the number of teachers who completed 2-4 projects and those with more than 20 projects were equal. More than six of the respondents completed 5-7 projects, while the remaining did more than 8-10 projects.

Figure 3: The Number of eTwinning Projects Completed by the Teachers

The number of eTwinning projects completed

■ Teachers

|	
2-4 projects	18.75%
5-7 projects	37.50%
8-10 projects	25%
more than 20	18.75%
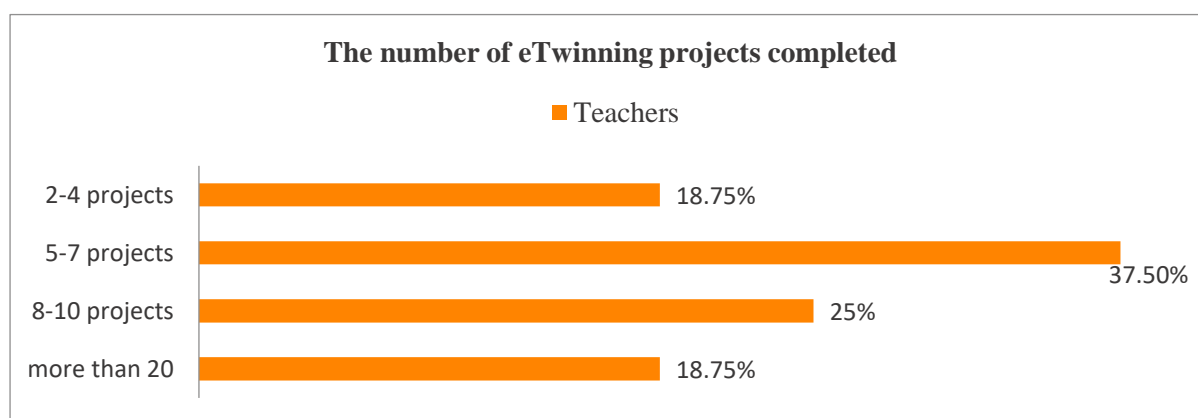
The situation, however, was different when talking about the number of projects completed by the students. It could be inferred that every year teachers carried out projects not only with their previously experienced eTwinner students but also with new ones.

Figure 4: The Number of eTwinning Projects Completed by the Students

The number of eTwinning projects completed

■ Students

1-2 projects	41.79%
3-4 projects	34.33%
5-7 projects	17.91%
more than 8	5.97%
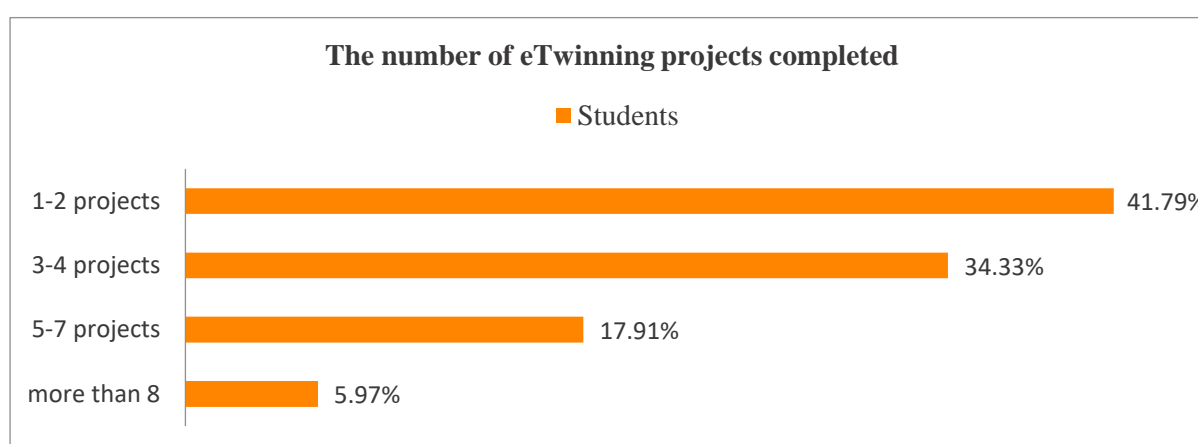
As for the number of European Quality Labels (EQLs) that the teachers and their students were awarded, most of the teachers and students had 1-2 labels. But there were also teachers and students who had more than 3-4 labels and even more.

Figure 5: The Number of European Quality Labels
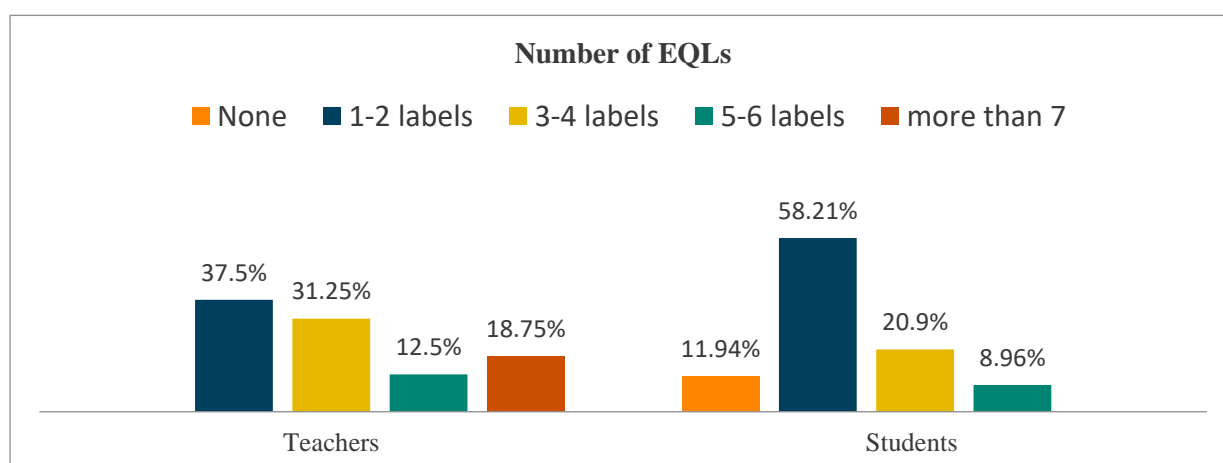
DATA COLLECTION

The data collection process started first with quantitative data with the help of teacher and student online surveys. In the first stage, the online questionnaire for teachers was distributed in the messenger chat. In fact, at least one day was required to get all the responses. Simultaneously, the teachers also received the second questionnaire for the students only, which they had to distribute to their own students who had participated in the eTwinning projects. More than 67 students from different schools in different regions of Armenia completed the survey in four days.

In the second stage of the data collection, interviews with the teachers were conducted. All the teachers were informed about the interview part, but only 13 out of 16 teachers were able to take part in it. Every teacher was contacted individually both via phone and messenger to fix a suitable date and time for the interviews. Each interview lasted from 15 to 25 minutes depending on the teachers' answers. Although the interview questions were in English, the interviewees were free to choose the language they wanted to use when answering the questions.

RESEARCH INSTRUMENTS

The quantitative data were collected via online surveys designed for teachers and students respectively. Some of the questions in the surveys were adapted from the existing questionnaires, while others were created by the researcher based on the theoretical part. The teacher questionnaire consisted of 16 Likert scale, close-ended and open-ended questions in English (See Appendix A). The student questionnaire, on the other hand, incorporated 14 Likert scale close-ended and open-ended questions both in English and Armenian (See Appendix B). Apart from some demographic information and information related to completed eTwinning projects, the questionnaires enquired about the role of eTwinning in developing participants' 21st century skills. The semi-structured interviews were based on 'specific and defined questions (See Appendix C) determined in advance allowing some elaboration in the questions and answers' (Madrid & Bueno, 2005, as cited in Ureña-Rodríguez, 2017). Although most of the interview questions were created by the researcher, a few of them were adapted from various sources (Akdemir, 2017; Lakki, 2018, Ureña-Rodríguez, 2017). The interview consisted of 10 open-ended questions which

were built on the survey responses and allowed the teachers to share their ideas, thoughts and expertise related to the specific 21st century skills that eTwinning helped to develop in students. The interview participants were able to come up with their own suggestions on how eTwinning can improve teaching and/or developing 21st century skills.

DATA ANALYSIS

The data were collected in three stages: quantitative data with the help of student and teacher surveys and qualitative data with the help of teacher interviews. The data collected from the survey were analysed descriptively using percentages via Excel, however, the data collected from the interviews were analysed inductively by themes. Thematic analysis offers a way into qualitative research that teaches the mechanics of coding and analysing qualitative data systematically (Braun & Clarke, 2012). Firstly, the researcher got familiar with the data by reading and rereading the transcripts of the interviews and listening to the audio recordings. Secondly, there was a systematic analysis of the data through coding. Later, the researcher reviewed the coded data to identify areas of similarity and overlap between codes and started generating the themes. Afterwards, the themes were reviewed in relation to the coded data and entire data set, defined and named accordingly.
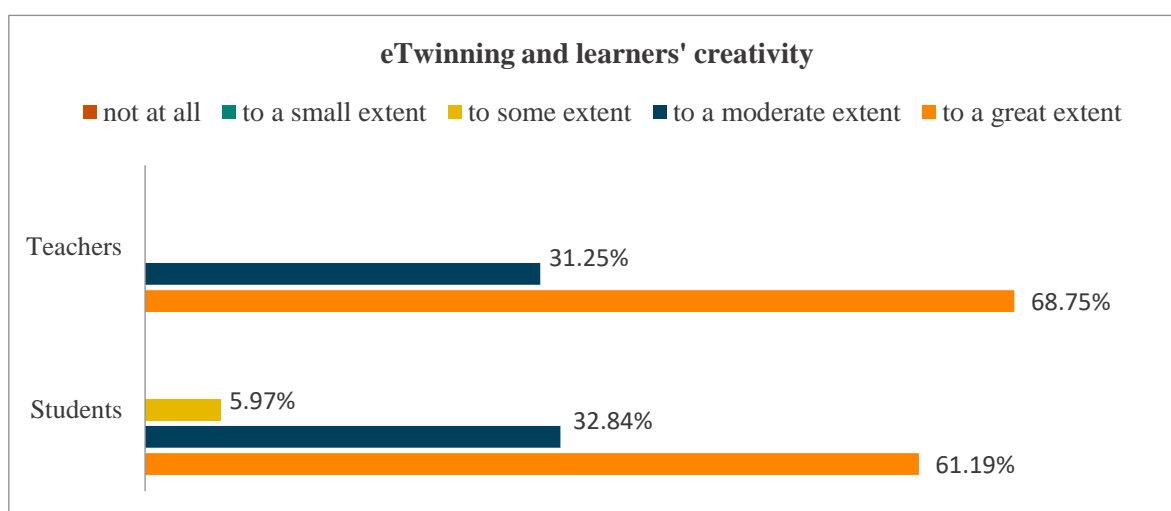
RESULTS

To answer each of the research questions of the study, the results will be presented in eight separate yet related themes.

THEME ONE: ETWINNING AND LEARNERS' CREATIVITY

The results of the analysis of the survey responses demonstrated that almost 69% of the teachers (11 teachers) and 61% of the students (41 students) believed that eTwinning developed the learners' creativity to a great extent (Figure 6). The rest of the teachers, almost 31% (5 teachers) and 33% of students (22 students), were sure that eTwinning developed their creativity to a moderate extent. On the other hand, at least 6% of the students were not sure about its significant role in their creativity. In addition to this, most of the interviewed teachers highlighted that eTwinning helped both students and teachers to go beyond their classroom and integrate other subjects enabling them to think more creatively. In many projects students' creativity was fostered when they worked on the creation of logos, various illustrations, e-books, posters, postcards, and so on. Some of the teachers also mentioned that the degree of students' creativity was sometimes very surprising. The teachers also believed that the creative work increased their students' sense of responsibility because when the students knew that they had to complete a task or simply introduce themselves and their cultures to their partners, they were more responsible for the quality of their 'outcome'. The teachers also stated that after the students looked at their partners' work (video, poster, logo) they started to self-reflect on the things they could have done differently and on the things they could do differently in future projects.
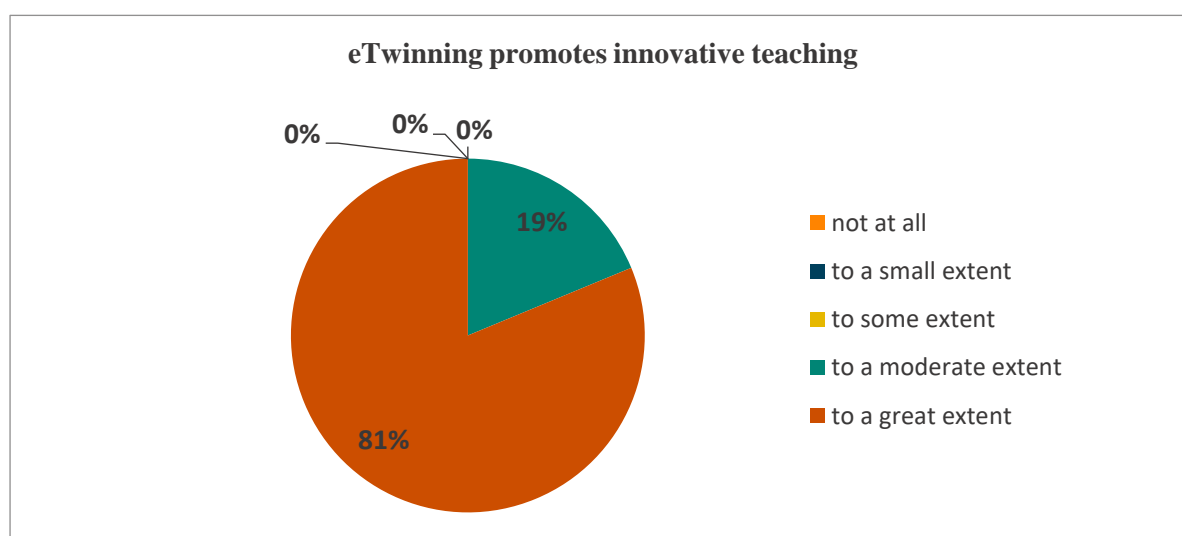
eTwinning and learners' creativity

■ not at all ■ to a small extent ■ to some extent ■ to a moderate extent ■ to a great extent

Teachers
31.25%
68.75%

Students
5.97%
32.84%
61.19%

THEME TWO: ETWINNING AND TEACHERS' INNOVATIVE TEACHING PRACTICES

The results also confirmed that eTwinning could develop teachers' innovative teaching practices. Over one third of the participant teachers agreed that through eTwinning they developed their innovative teaching skills. These findings appear to be in accordance with the interviews where most teachers agreed that eTwinning changed the way they taught every day, as well as developed innovation in their teaching. The teachers demonstrated that with the help of eTwinning they developed not only as professionals and pedagogues, but also individuals by becoming more open to new challenges, project-based learning and teamwork in their everyday teaching. As a result, they became more flexible, organised, open to new ideas, and collaborative both with teachers in their own schools and abroad. eTwinning also enabled them to acquire new computer skills and various ICT tools that were necessary to engage the 21st century learners in their classrooms. As one of the teachers noted: 'Today we have digital students, and we should understand that in order to attract them we need to use technologies as well'. Many teachers also pointed out the profound role of eTwinning plus Armenia in their professional development since it constantly conducted various workshops, teacher training sessions and seminars for the local teachers. It is worth mentioning that through such meetings teachers perceived to have obtained a great deal of new teaching techniques, methods (teaching with games, project-based learning (PBL), communicative language teaching, integrative lessons) and of course media tools that are essential for the implementation of successful projects. Overall, teachers were very positive about eTwinning in their innovative teaching stating that it gave them a lot of freedom outside their curriculums and particularly helped them to become a team player.
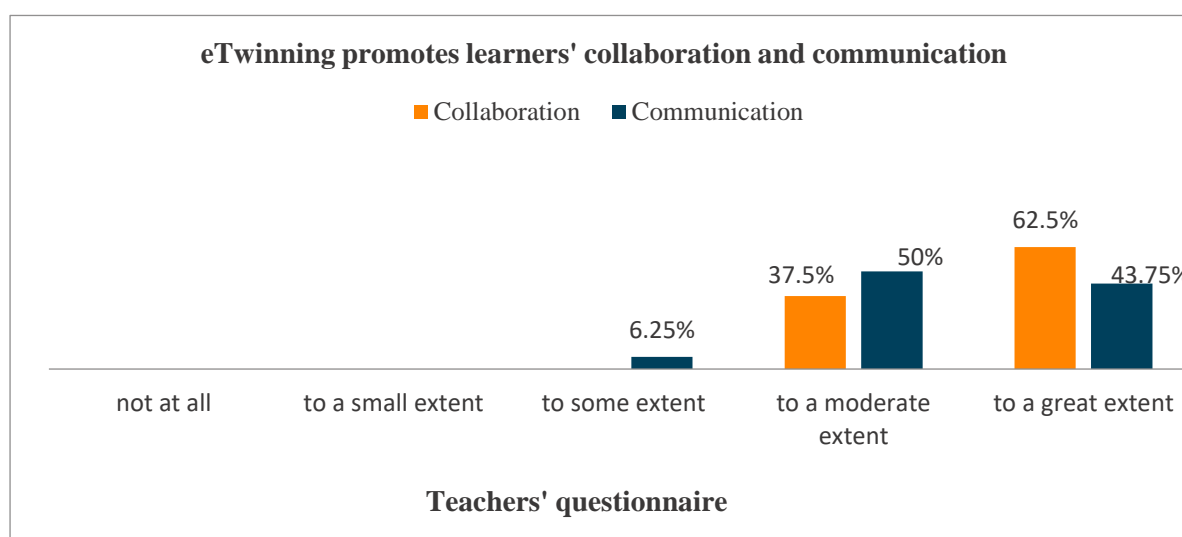
Figure 7: eTwinning Promotes Innovative Teaching

eTwinning promotes innovative teaching

0% 0% 0%
0%

19%

81%

- not at all
- to a small extent
- to some extent
- to a moderate extent
- to a great extent

THEME THREE: ETWINNING AND LEARNERS' COLLABORATION AND COMMUNICATION

The results obtained from both the teachers' and students' questionnaires illustrated that most teachers and students agreed that eTwinning developed learners' collaboration to a greater extent than communication.

Figure 8: eTwinning Promotes Learners' Collaboration and Communication (by teachers)

eTwinning promotes learners' collaboration and communication

■ Collaboration   ■ Communication

			62.5%
		37.5% 50%	43.75%
	6.25%		
not at all	to a small extent	to some extent	to a moderate extent	to a great extent

Teachers' questionnaire

In particular, 10 teachers agreed that eTwinning promoted their learners' collaborative skills to a great extent, however, only eight teachers thought it promoted students' communicative skills, and for one teacher this development was to some extent. It was obvious that teachers seemed to be more positive in this regard, while more students seemed to point out that eTwinning promoted their communication to some and/or to a small extent, compared to collaboration (Figure 9).

Figure 9: eTwinning Promotes Learners' Collaboration and Communication (by students)

eTwinning promotes learners' collaboration and communication

■ Collaboration ■ Communication

Students' questionnaire
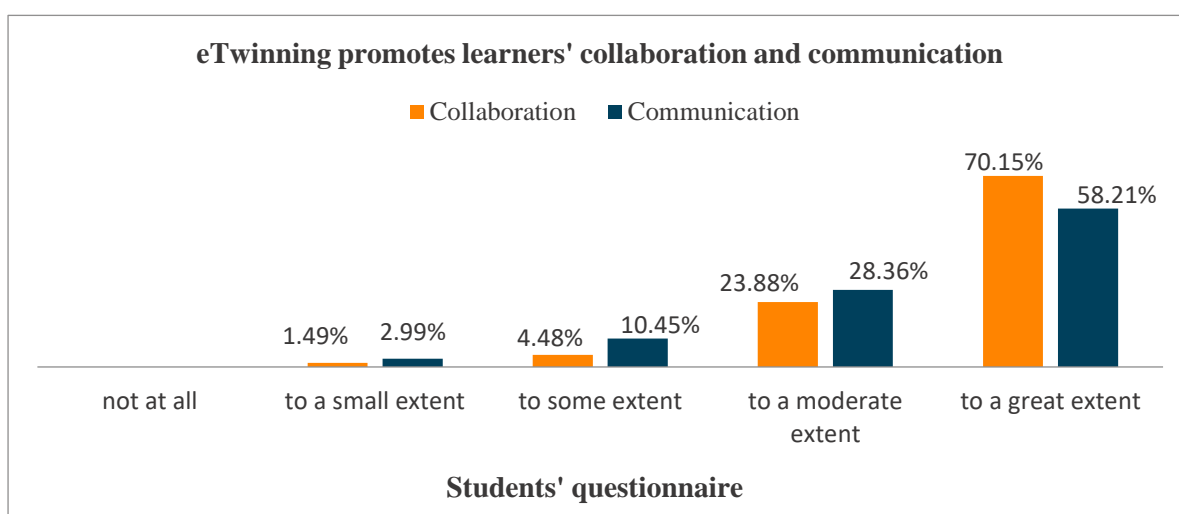
Equivalent results were also obtained from the qualitative data. The majority of teachers agreed that the students' collaboration was better developed through the projects in comparison to the communication aspect. When talking about collaboration and how eTwinning promoted it, the teachers mentioned the many outcomes of the different projects like videos, posters, e-books, e-magazines, fairy tales, songs, quizzes, presentations and organising various events which were mainly achieved through collaboration with their partners and working both in national and international teams and groups. Students worked together in international teams to complete a task, they shared their work, distributed their roles, worked together, wrote and edited to have a common outcome later at the end of the project. However, as mentioned in the interviews, teachers should always monitor the work and ensure collaboration. Sometimes collaboration between younger students was a little hard to manage where many students had language barriers, could neither write long sentences nor use English freely. In this respect, middle or high school students had more privileges. Apart from learners' collaboration, many teachers agreed that eTwinning had also promoted the teachers' collaboration both with their European partner teachers and other local eTwinners. As a result, now they have many eTwinner friend teachers who they can always rely on for future collaboration. Regarding the communication between the partner students, many teachers agreed that communication needed a little room for improvement. Although almost all the teachers managed to organise at least one online video meeting within a project so that the students could communicate with the partner students, the main means of communication tended to be in the form of messages, comments, forum discussions using TwinSpace, messenger, WhatsApp and Facebook groups. Everybody agreed that live communication between the partner students was very limited and required more work. There was an opinion that EFL teachers were more inclined to use video calls and such kinds of 'face-to-face' communication in contrast to partner teachers who are not EFL teachers. Some teachers also connected this low tendency of video communication with the time differences between Armenia and Europe. Another crucial factor was bad internet connection in Armenian schools and the lack of necessary equipment to connect.

THEME FOUR: ETWINNING, MULTICULTURALISM AND CROSS-CULTURAL UNDERSTANDING

Another interesting finding was about whether eTwinning promoted learners' cultural awareness or not. The pie charts below illustrate that more than half of both the teachers (nine teachers) and students (38 students) were sure that eTwinning raised learners' cultural awareness to a great extent making them more tolerant and respectful towards other cultures. Over 44% of the teachers thought that it developed multicultural understanding to a moderate extent. Moreover, these results went along with the interview results where many of the teachers stated that eTwinning was all about culture and that this was one of the key reasons, they still worked in eTwinning enabling their students to learn about diverse cultures and become more open-minded.

Figure 10: eTwinning Promotes Cross-Cultural Understanding (according to teachers)
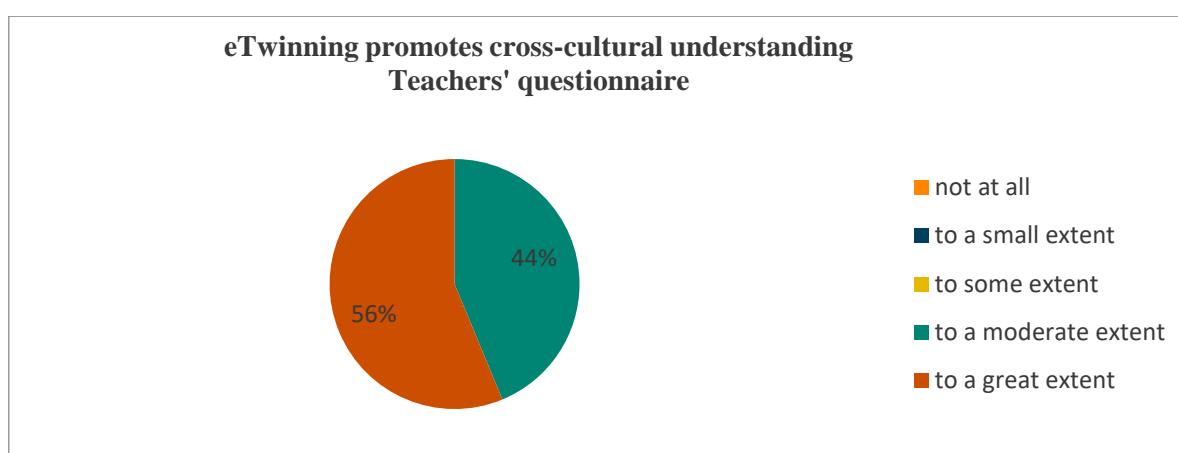
Exchanging letters, hand-made postcards, small souvenirs and national dish recipes were one way of fostering cultural awareness among learners. Another way was through presentations, videos, virtual tours, e-books, chat and forum discussions where students got a thorough understanding of their partners' cultures, their customs, traditions and their religion. eTwinning projects also helped students to reflect not only on foreign cultures but also notice the bad and good sides of their own culture and reflect on what should be changed and developed.

Figure 11: eTwinning Promotes Cross-Cultural Understanding (according to students)
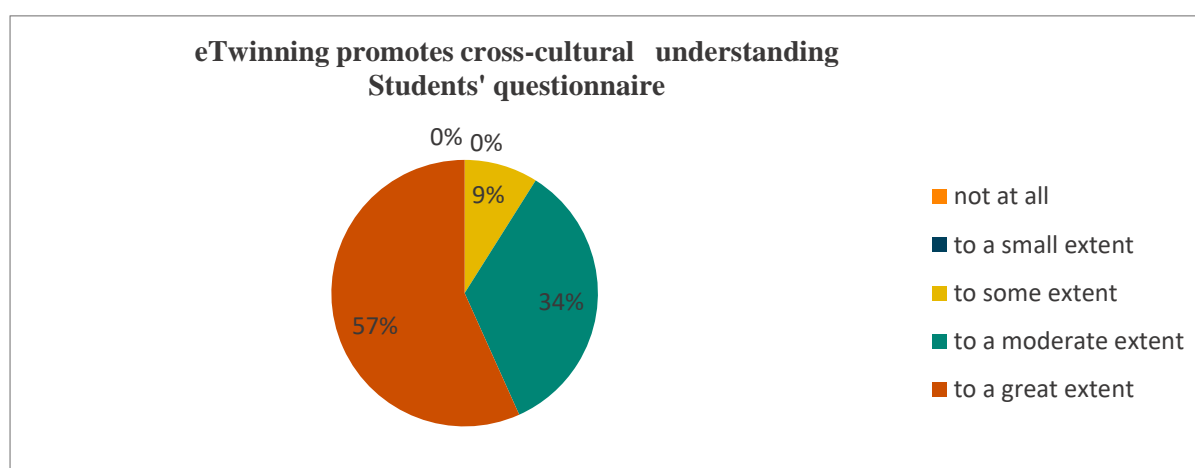
One of the teachers shared a specific project example where her students took photos of symbols on Armenian carpets and shared them with their partner friends. Later during the project, they all started to draw and make illustrations of Armenian carpet decorations and symbols. According to another teacher, through eTwinning projects students learned not only about the whole culture of their partner country but also their microculture such as the students' daily life and routine, their likes and dislikes, their community and the school. The cultural understanding therefore helped students to respect each other's opinions and become less reserved and more open to new things.

THEME FIVE: ETWINNING AND TEACHERS' AND LEARNERS' DIGITAL LITERACY

Digital literacy (ICT tools, media literacy) was among the 21st century skills that most participants had similar opinions about. More than 75% of the teachers (N=12) agreed that eTwinning had a significant impact on the development of not only their own but also their students' digital literacy. A similar conclusion was reached when analysing the students' responses, where over 64% of the students (N=43) agreed on its significant impact. However, overall, for almost 15% of the students (N=ten) the promotion of this skill was to some or to a small extent. Overall, these findings were in accordance with the findings from the teacher interviews where the teachers assured that eTwinning had a significant impact on their own professional development in the scope of ICT skills and media literacy. All the teachers interviewed reported that they had started integrating ICT tools into their classroom teaching due to eTwinning projects.

Figure 12: eTwinning Promotes Digital literacy
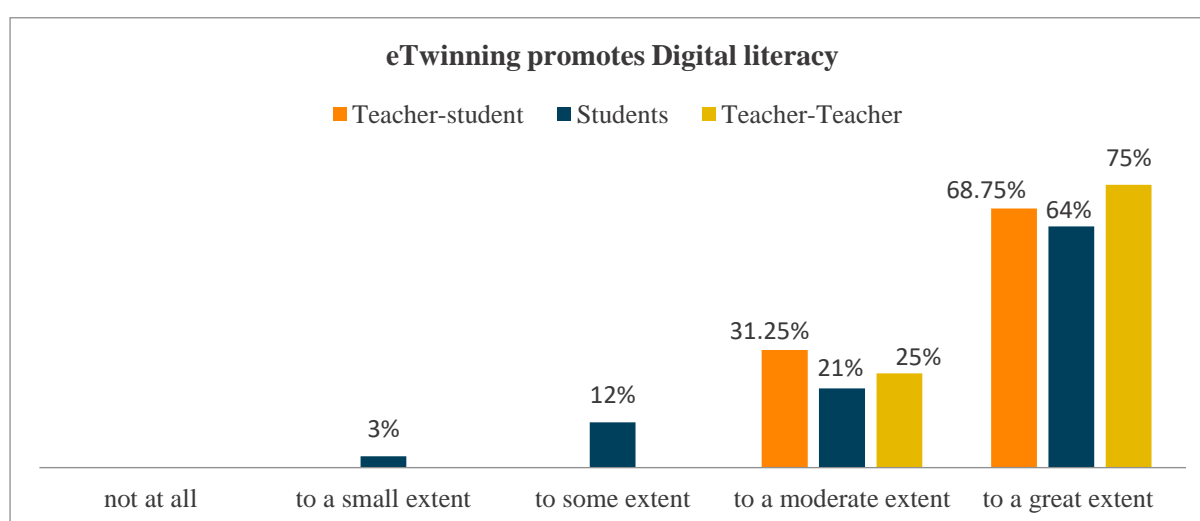
Even though some teachers were more or less aware of some digital tools and applications before working in eTwinning, they started using and practicing these tools correctly in eTwinning projects. According to some teachers, eTwinning made them understand that using modern technologies (ICT tools, phones, apps) in the teaching and learning process was not only fun and motivated most students, but was also a necessary part of 21st century education. In the case of younger students, the teachers would introduce the specific tool to them, explain how it worked and later start using it, while in case of older students, the students themselves came up with new tools and websites that could be used for a particular project. However, all the teachers agreed that before starting any eTwinning project, they had a separate lesson or a workshop for students on how to be safe on the internet, how to differentiate fake news, how to notice disinformation and

many other topics. With the help of eTwinning, their students learned not just to wander on the internet but to do research, find necessary information and present to their peers and foreign partners in a more creative way. To conclude, some teachers mentioned that now not only did they use technology in their classrooms, but their students also prepared different presentations, quizzes and games during their lessons using all the ICT tools they had learned from eTwinning. The survey also revealed some of the most famous and widely used ICT tools both for teachers and students. Namely:

- *ICT Tools for Teachers:* Padlet, Storyjumper, Kahoot, Bookcreator, Glipgrid, Canva, Kizoa, Prezi, Sway, Genially, Animoto, Tricider, Answergarden, Movie maker. Learning App, Madmags, Dotstorming.
- *ICT Tools for Students:* Kahoot, Padlet, Canva, Genially, Thinglink. Lino, Storyjumper, Postermyhall.

It can be assumed based on the results, though, that teachers were more aware of different tools than their students as the number of tools they had learned during the projects was twice as much than those among their students. Among the most widely used tools were Kahoot, Padlet, Cava, Genially, Thinglink and Storyjumper. Excluding Kahoot, these were the tools, which were used while collaborating with other students and working together on the creation of their project outcomes.

THEME SIX: ETWINNING, LEARNERS' CRITICAL THINKING AND PROBLEM SOLVING

As illustrated by Figure 14, over eight teachers and about half of the students agreed that eTwinning promoted learners' critical thinking and problem-solving skills to a great and moderate extent. There were, however, some students who thought that this extent was to a small degree. Very few teachers and students thought that eTwinning developed these skills to some extent. A similar conclusion was reached based on the analysis of interviews as at least three teachers found it hard to say that eTwinning, in fact, played a role in teaching or developing students' critical thinking.

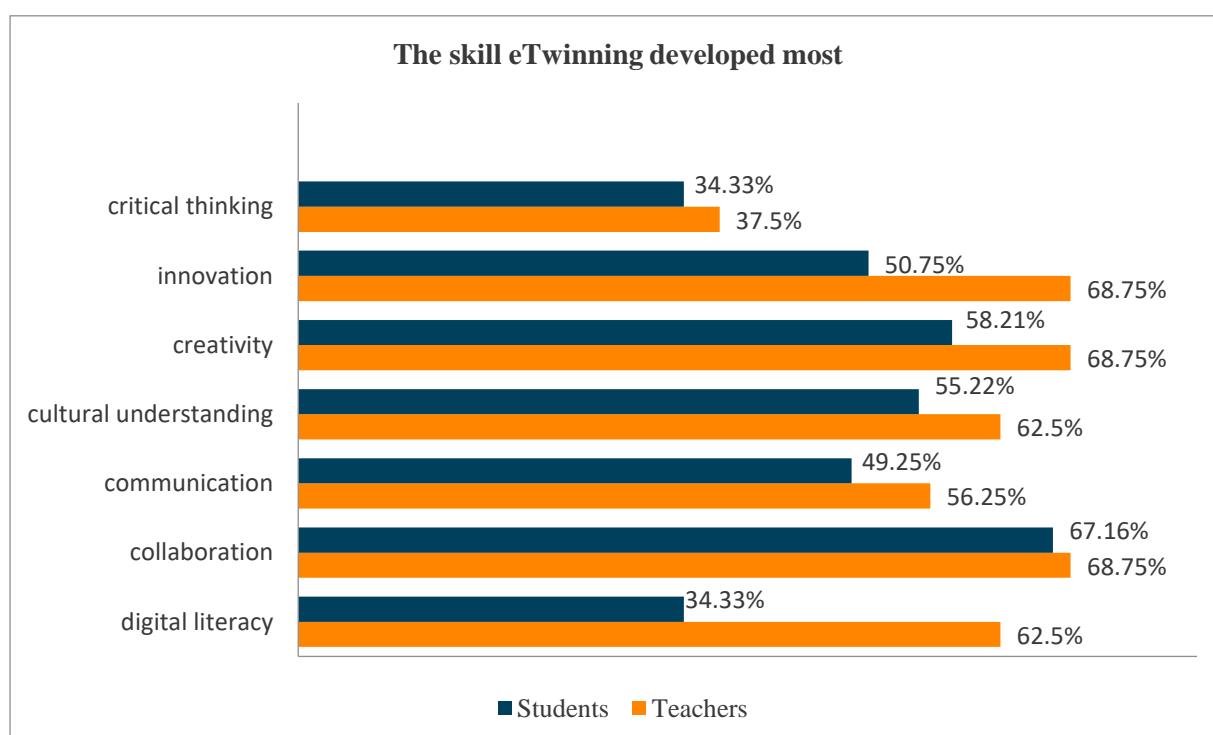*Figure 13: eTwinning Promotes Learners' Critical Thinking*
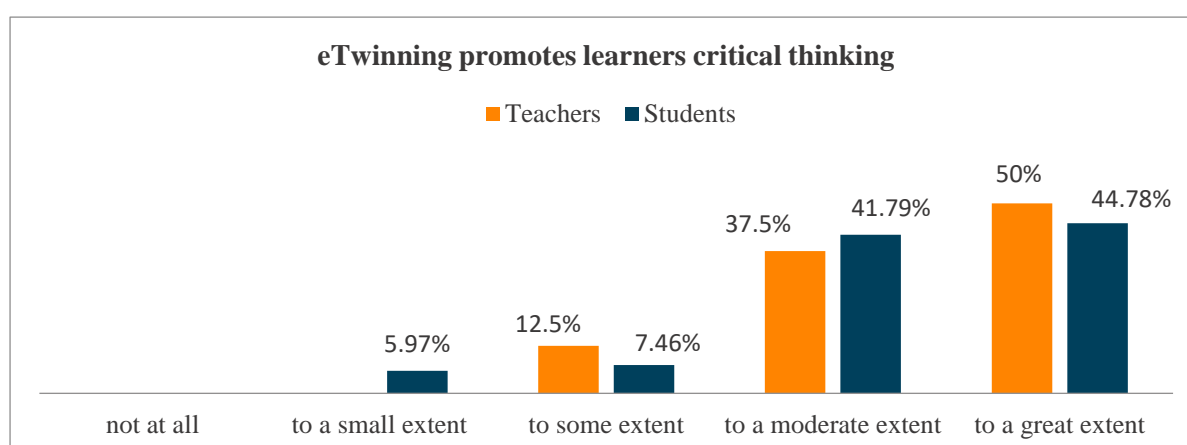
In their opinion teaching or developing students' critical thinking mostly depended on the teacher and their skills rather than eTwinning projects. It also depended on the project and its goals. On the other hand, most teachers agreed that indeed eTwinning helped to develop students' critical thinking and problem solving skills. In many cases students had

to find problems in their own communities and/or society and culture, they had to brainstorm about the problem, its reasons and future consequences. Later came the stage when they had to do research and/or observations to explore these problems and come up with ways to solve them. It was here where students had to think critically, analyse the different situations and problems to solve them or at least propose their suggestions on how to solve them. This stage of the eTwinning projects helped students understand that there was no right or wrong answer, they should think freely without fear of making mistakes, sometimes out of box, evaluate the different situations, dig deeper and try to find solutions through thorough analysis.

Teachers mentioned many projects which enabled students to be critical thinkers and developed their ability to provide their own solutions to their own community problems as well as solutions for their partners' problems. In many projects students were able to touch upon global issues such as gender equality, climate change, pollution and other environmental problems. It was due to eTwinning projects that many students started to notice air pollution in their own towns. In one project, students discussed the environmental and pollution problem of Lake Sevan. The interesting thing was that not only did our students come up with suggestions on how to reduce water pollution, but their partner students did too. In another project students discussed gender equality issues and each country had to research and present the most influential female leaders in their countries' history. As one teacher mentioned, this was a wonderful experience for her students to learn about female leaders who were never mentioned in any Armenian textbooks.

After talking about each skill that eTwinning developed, both teachers and students had to choose the skills that eTwinning helped them most in their teaching (in the case of teachers) and in their learning (in the case of students). Here as well, a lot of overlaps were noticed among their responses.

Figure 14: The Skill eTwinning Developed Most Among Teachers and Students

The skill eTwinning developed most

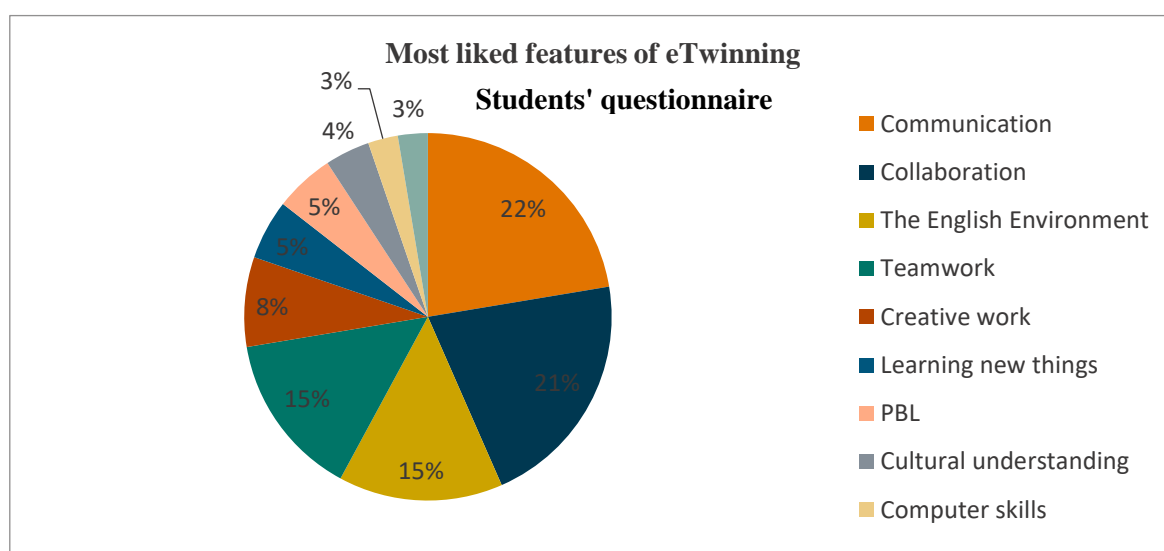| Skill	Students	Teachers
critical thinking	34.33%	37.5%
innovation	50.75%	68.75%
creativity	58.21%	68.75%
cultural understanding	55.22%	62.5%
communication	49.25%	56.25%
collaboration	67.16%	68.75%
digital literacy	34.33%	62.5%

■ Students ■ Teachers

First of all, the skills that most teachers developed in their teaching are creativity and innovation, collaboration, cultural understanding, and digital literacy, while the least developed skill seemed to be critical thinking. And in the case of students' responses, the most developed skill was collaboration and the least developed ones were critical thinking and problem solving.

THEME SEVEN: PERCEPTIONS ABOUT ETWINNING

One of the open-ended questions in the survey asked both teachers and students what they liked most about eTwinning. Among the favourite features of eTwinning, teachers mentioned collaboration and communication with European partners, meeting new teachers and networking, freedom and opportunity to bring to life their creative ideas, sharing and exchanging ideas, pedagogical approaches, new teaching methods, and ICT tools.

The students' responses summarised in the pie chart in Figure 16 demonstrated that over 22% of the students (N=17) reported that they liked eTwinning because it gave them an opportunity to communicate with their foreign peers where they could freely express their opinions and listen to other students' points of view. The second favourite feature of eTwinning was the collaboration between the students. More than 15% of the students (N=11) liked the English environment in eTwinning where they could also improve their English because the communication between the students was mainly through English. A similar preference (11 students) was given to teamwork since the students like the way they work in teams and are united for one common goal. On the other hand, some students also favoured the creative work in eTwinning projects. Other favourite features include but are not limited to learning and discovering new things, project-based learning, exploring new cultures, acquiring computer skills and innovation.

Figure 15: Most Liked Features of eTwinning (by students)

THEME EIGHT: TEACHERS' SUGGESTIONS

Though the majority of both teachers and students agreed that eTwinning develops 21st century skills in their teaching and learning practices, the teachers came up with several suggestions on how eTwinning can improve these skills.

First, in the opinion of many teachers, it is rather hard to integrate eTwinning into their own everyday teaching, and they have to carry out the projects outside their lessons. The main reason is that according to the national curriculum, English lessons are conducted twice or three times a week. Carrying out eTwinning projects during these hours is practically almost impossible. To solve this problem, many teachers suggested having eTwinning as a separate subject or at least an elective, which would enable more teachers and more students to be involved in various projects. Secondly, some teachers were starting to feel reluctant to continue working in eTwinning and suggested having more appreciation on the national level too, referring to the Ministry of Education, Science, Culture, and Sports of the Republic of Armenia. Seminars, workshops and teacher training sessions can serve as viable solutions to motivate and engage more teachers.

Moreover, the idea of having an experienced mentor in eTwinning was also a workable solution for some teachers. Mentor teachers could start a project, involve beginner teachers, and show them all the aspects of good project work. In addition, the majority of interviewed teachers agreed that to raise students' motivation and improve their engagement in eTwinning projects, eTwinning, or at least eTwinning plus Armenia should also organise seminars and workshops for students to bring them all together. eTwinning should also create different tutorials for students on how to use various ICT tools and for what purposes. Various online, as well as many face-to-face student workshops and seminars directly on the eTwinning platform will foster students' creativity and problem-solving skills and help them work more collaboratively towards one common goal. Competitions are another way of motivating students because in many cases they also want to be praised, to be appreciated and awarded. Moreover, it was proposed, that maybe there can be an exchange programme allowing at least the most active students to travel and meet their partners in real life. This would be the best motivation for all the students in their opinion.

DISCUSSION

According to the previous studies regarding the role of eTwinning in teachers' pedagogical innovation and teaching practices, eTwinning enables teachers to get new ideas, tools and contents, explore new methods, as well as provides them with life-long learning opportunities - all of which enhance pupils' motivation, learning and active participation (Licht et al, 2020, Papadakis, 2016 as cited in Acar & Peker, 2021). In response to the first research question about how eTwinning promotes 21st century skills in EFL teachers' teaching practices, the current study findings go beyond showing that through eTwinning teachers can develop not only as professionals but also as individuals by becoming more organised and flexible. Most teachers reported to have become more open to new challenges, teamwork and project-based learning in their everyday teaching. About ICT and digital literacy in general, the majority of teachers confirmed that they have now become more proficient in integrating various ICT tools not only into eTwinning projects, but also into their everyday teaching because they started to notice the significant role these technologies have on their students' motivation and learning. This finding is in line with the previous studies stating that technology integration contributes to teachers' professional development (Akinci, 2018, as cited in Acar & Peker, 2021, Gilleran, 2019) and that in eTwinning both teachers and students learn the technology and/or improve their ICT knowledge in a certain context (Bengtsson, 2016, Camilleri, 2016, Coutinho, & Rocha, 2007,). Moreover, communication and collaboration with their foreign colleagues

abroad can help the teachers become culturally more aware and tolerant towards others. Working in eTwinning projects can also to some extent develop their teaching of critical thinking skills. It is also vital to mention the networking opportunity not only with foreign colleagues but also with local Armenian teachers of various disciplines and the local eTwinning plus Armenia training opportunities which enable them to stay up to date with modern pedagogical methods, ICT tools and teaching techniques.

Concerning the second research question on how eTwinning promotes 21st century skills in EFL students' learning practices, numerous studies have pointed out that 21st century skills are essential for today's education system and include skills like collaboration and communication, critical thinking and problem solving, analysing information and generating solutions, creativity and adaptability, tolerance to other people and cultures, digital skills, and technological literacy (Gardner, 2008, Partnership for 21st Century Skills, 2009, Rich, 2010, Wagner, 2008, Zhao, 2009, ISTE).

The research findings on collaboration and communication confirm the results of the previous studies (Gilleran, 2019, O'Dowd et al., 2007, as cited in Lakki, 2016) in that eTwinning is an engaging tool that makes it possible for students from diverse cultures and linguistic backgrounds to collaborate in teams which creates an authentic environment in the EFL classroom. The current research results showed that most of the teachers (10 of 16 participants) and students (47 of 67 participants) agreed that eTwinning promotes students' collaboration through working on one common outcome of a project which can be in the form of a video or a song, a presentation or a poster, an e-book or an e-magazine and more. The findings also illustrate that collaboration through eTwinning is the skill that the students (45 of 67 participants) developed most in their learning practices. In fact, it was the second most liked feature of eTwinning among the students. On the other hand, the results demonstrated that communication skills need a lot of improvement. Though less than half of the teachers and more than half of the students agreed that eTwinning promotes students' communication skills to a great extent, the communication component of eTwinning is still limited to comments on the forums, chats on social media (WhatsApp, Messenger, Viber) and very seldom online video meetings.

The current research findings on multiculturalism and cross-cultural understanding tie in well with previous studies wherein eTwinning contributes to European education by raising teachers' and students' awareness about multicultural societies (Crawley et al., 2008, Fat, 2012, as cited in Camilleri, 2016) enabling both teachers and students to reflect on the similarities and differences in lifestyles and cultures (Acar & Peker, 2021, Akdemir, 2017; Øverland, 2015;) and to be more tolerant towards others (Henry & Lima, 2012). Similarly, the current research suggests that eTwinning promotes multicultural as well as cross-cultural understanding among eTwinning students and teachers. It was reported that eTwinning is all about culture and that being involved in eTwinning already means learning about various cultures. The knowledge that the students acquired about their international partners' culture makes them more tolerant and respectful towards them and at the same time more open to diverse cultures. Moreover, cultural understanding was among the skills rated highly both by teachers and students in the scope of the skills eTwinning helped them to develop most in their teaching and learning practices.

Previous studies on creativity suggest that eTwinning develops students' creativity and enables them to express themselves (e.g., Lakki, 2018). Moreover, eTwinning helps to inspire new ideas and make the teaching-learning process more effective and engaging (Acar & Peker, 2021). A similar conclusion was reached by the current research as the

vast number of teachers and students report that eTwinning indeed develops the learners' creativity via integrating different cross-curricular subjects and art components in them. However, apart from promoting creativity eTwinning also helped students to be more responsible towards their outcomes, as well as more reflective after seeing the results of their partners. One surprising finding here is that only six students (of 67 participants) and two teachers (of 16 participants) liked creativity in eTwinning.

The literature review on digital literacy and ICT showed that eTwinning aims to find new ways to use ICT and equip students with the necessary technological skills (Fat, 2012 as cited in Acar, & Peker, 2021). Through eTwinning projects students learn to use the technology in a certain context (Camilleri, 2016); they learn to use multiple media for several purposes (Lakki, 2018) such as to find information and check its reliability (Gilleran, 2019). Students also improve their knowledge of various computer applications (Coutinho, & Rocha, 2007). The results of the current study confirm that eTwinning develops not only learners' but also the teachers' knowledge and proficiency in using different ICT tools. More than 43 students (of 67 participants) and 12 teachers (of 16 participants) confirmed that eTwinning develops digital literacy especially that of ICT tool use to a great extent. The students learn about e-safety, how to do a search on the internet, what information to choose, what is fake news and what is disinformation. The results of the teacher interviews also suggest that the various ICT tools learned during eTwinning projects are widely used not only within the eTwinning platform but also outside it during English lessons.

The literature review on critical thinking and problem solving stated that eTwinning, as a form of project-based learning, developed the students' problem-solving skills (Kearney & Gras-Velázques, 2015, as cited in Bengtsson, 2016; Lakki, 2018). In this regard, the research results indicate that almost half of all the survey respondents (eight teachers and 30 students) agreed that eTwinning developed the aforementioned skills to a great extent while only half of them stated that it developed these skills to a moderate extent. However, an interesting finding related to critical thinking was that according to the participants (six teachers and 23 students) critical thinking and problem-solving skills were the skills that eTwinning least helped to develop in their learning and teaching practices. On the other hand, the interview results proved the opposite, where most teachers brought many examples showing how specific tasks and projects helped to develop critical thinking and problem-solving skills in their students.

CONCLUSIONS

The present study aimed to find out whether and how eTwinning promoted and/or developed 21st century skills in EFL teaching and learning. To do so, a mixed method research was implemented to investigate to what extent Armenian EFL teachers and their students believed that eTwinning was developing 21st century skills in their teaching and learning practices. The study mainly focused on the development of 21st century skills such as collaboration and communication, critical thinking and problem solving, multicultural understanding, creativity and innovation, digital literacy, and ICT tool use.

The research findings suggest that eTwinning does promote the aforementioned skills in EFL classrooms. First of all, eTwinning appears to have a significant role in developing innovation in teachers' teaching and providing them with new and innovative teaching methods, techniques and tools through various activities within the projects, as well as professional development workshops and seminars (Acar & Peker, 2021). Moreover,

integrating various disciplines such as art, ecology, environment, science and technology into eTwinning is believed to foster student creativity (Gouseti, 2013; Licht et al., 2020).

Secondly, the findings suggest that eTwinning promotes communication and collaboration, multiculturalism and cultural understanding both locally and internationally. It is through eTwinning projects that students start to value their cultural heritage and raise their intercultural awareness, as well as teamwork, effective communication and collaboration. Furthermore, most teachers and students reported to have developed their digital literacy and ICT tool use in particular (Acar, & Peker, 2021). In addition, they have started to integrate ICT into their daily teaching and learning processes (Lakki, 2018). Finally, eTwinning has to some extent developed students' critical thinking and problem solving skills (Coutinho & Rocha, 2007; Lakki, 2018).

To improve eTwinning in the scope of teaching and/or developing the aforementioned 21st century skills most teachers highlighted the need to integrate eTwinning in their national curriculums, to raise its appreciation on the national level and think of new mechanisms to motivate more teachers and especially students in future projects. As stated, not only teachers but their students need praise, reward and professional development opportunities.

Since no research has been conducted in Armenia to see the role eTwinning plays on teachers' teaching, as well as students' learning practices in the light of 21st century skills, the following research findings can provide its stakeholders, especially NCET (National Center of Educational Technologies), eTwinning plus Armenia, as well as teachers and their students with important insights about the 21st century skills that eTwinning develops in the Armenian EFL teaching context alone. The recommendations and/or suggestions by the teachers on how to improve eTwinning in the scope of teaching and/or developing the 21st century skills will serve as guidelines for eTwinning plus Armenia when conducting professional development programmes for teachers.

However, the findings of the current study should be viewed in the light of its limitations. The primary limitation of the current research is the small size of the sample population (16 EFL teachers and 67 students). Future studies can also include not only EFL teachers but also teachers of other disciplines. In the current study, only the teachers were interviewed. While in future studies, interviews could be conducted not only with teachers but also with the students since in many cases the teachers' answers may be biased and based on their own perceptions. Some of the students filled out the online survey in schools. In this respect the teachers' guidance to help them with the answers may be another limitation of the study.

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Teacher Questionnaire

1. What region do you teach in?

   short answer _____

2. What age group(s) do you teach?

   short answer_____

3. How long have you been registered in eTwinning?

   less than a year, 1-2 years, 3-5 years, 6-9 years, more than 10

4. How many eTwinning projects have you done?

   short answer _____

5. How many European Quality labels have you got?

   Short answer_____

6. To what extent does eTwinning develop learners' creativity?

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

7. To what extent does eTwinning promote learners' collaboration?

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

8. To what extent does eTwinning promote learners' communication?

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

9. To what extent does eTwinning promote multiculturalism and cross-cultural
   understanding?

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

10. To what extent does eTwinning promote learners' digital literacy (ICT skills, media
    literacy)?

    5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

11. To what extent does eTwinning develop learners' critical thinking/problem-solving?

    5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent,

1-not at all

12. To what extent does eTwinning promote teachers' digital literacy (ICT skills, media
    literacy)?

5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

13. To what extent does eTwinning develop innovative teaching?

5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

14. What new Web 2 tools have you learned with the help of eTwinning? (kahoot, genially, padlet, etc.,)
    short answer _____

15. What is the competence/skill eTwinning helped you to develop most in your teaching?
    (Choose all the options which fit you)

    - digital literacy
    - collaboration
    - communication
    - cultural understanding
    - creativity
    - innovation
    - critical thinking/problem solving
    - other _____

16. What do you like most about eTwinning?

    Short answer _____

Student Questionnaire

1) What region do you live in?

   Ո՞ր մարզում ես բնակվում

   short answer _____

2) How old are you?

   Քանի՞ տարեկան ես

   short answer _____

3) How long have you been registered in eTwinning?

   Որքա՞ն ժամանակ է գրացված ես Իթվիննինգ հարթակում:

   less than a year, 1-2 years, 3-5 years, 6-9 years, more than 10

4) How many eTwinning projects have you done?

   Քանի՞ Իթվինինգ նախագիծ ես իրականացրել:

   short answer_____

5) How many European Quality labels have you got?

   Քանի՞ Որակի Եվրոպական հավաստագիր ունես

   Short answer_____

6) To what extent does eTwinning develop learners' creativity?

   Որքանո՞վ է Իթվինինգը զարգացնում սովորողների ստեղծագործ միտքը:

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

7) To what extent does eTwinning promote learners' collaboration?

   Որքանո՞վ է Իթվինինգը նպաստում սովորողների համագործակցությանը:

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

8) To what extent does eTwinning promote learners' communication?

   Որքանո՞վ է Իթվինինգը նպաստում սովորողների միջև հաղորդակցությունը:

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

9) To what extent does eTwinning promote multiculturalism and cross-cultural understanding?

   Որքանո՞վ է Իթվինինգը նպաստում բազմամշակութային և միջմշակութային գիտելիքներին:

   5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

10) To what extent does eTwinning promote digital literacy (ICT skills, media literacy)?

Որքանո՞վ է Իթվինինգը նպաստում թվային գրագիտությանը /ՏՅՏ հմտություններ, մեդիա գրագիտություն:

5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

11) To what extent does eTwinning develop critical thinking/problem-solving?

Որքանո՞վ է Իթվինինգը զարգացնում քննադատական մտքը/խնդիրների լուծումը

5-to a great extent, 4- to a moderate extent, 3- to some extent , 2-to a small extent, 1-not at all

12) What new Web 2 tools have you learned with the help of eTwinning? (kahoot, genially, padlet, etc.,)

Ի՞նչ Web 2 գործիքներ ես սովորել Իթվինինգի շնորհիվ (kahoot, genially, padlet, և այլն.,)

short answer _____

13) What is the skill eTwinning helped you to develop most in your leaarning?

(Choose all the options which fit you)

Ո՞րն է այն հմտությունը, որ Իթվինինգը ամենաշատն է զարգացրել քո սովորելու գործընթացում: (Նշիր բոլոր պատասխանները, որ քեզ են վերաբերում)

- digital literacy/թվային գրագիտություն
- collaboration/ համագործակցություն
- communication /հաղորդակցություն
- cultural understanding/մշակույթային գիտելիքներ
- creativity /ստեղծագործական միտք
- innovation/ նորարարություն
- critical thinking/problem solving /քննադատական մտածողություն/խնդիրների լուծում
- other _____

14) What do you like most about eTwinning? Ի՞նչն է քեզ ամենից շատ դուր գալիս Իթվինինգում:

Short answer _____

Semi-structured Teacher interview Questions

1. Do you think eTwinning has changed the way you teach? If YES, then How/In what way has it changed?
2. How does/did eTwinning develop learners' creativity?
3. How does/did eTwinning develop innovative teaching?
4. How did eTwinning promote learners' collaboration?
5. How did eTwinning promote learners' communication?
6. How did eTwinning promote multiculturalism and cross-cultural understanding?
7. How did eTwinning promote your students' digital literacy? (ICT skills, media literacy...)
8. How did eTwinning promote your own digital literacy? (ICT skills, media literacy...)
9. How does/did eTwinning develop learners' critical thinking/problem solving skills?
10. From a teacher's perspective, what are your suggestions in order to improve eTwinning in the scope of teaching/developing the above-mentioned skills?