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Research Article

Uzaktan Eğitim Sürecinde Yürütülen eTwinning Projelerine Yönelik Ortaokul Öğrencilerinin Görüşleri: Geri Dönüşüm ve Dijital Okuryazarlık Projeleri

Opinions of Secondary School Students on eTwinning Projects Conducted During Distance Education: Recycling and Digital Literacy Projects

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ÖZ

21. yüzyılı etkileyen dijital devrim, tüm yaşam faaliyetlerinde olduğu gibi eğitim çalışmalarında da değişimlere neden olmaktadır. Dijital uygulamalar (Web 2.0 araçları) ile öğrencilere yaparak ve yaşayarak öğrenme ortamı sağlayan "eTwinning", bilgi ve iletişim teknolojilerinin (BİT) eğitime entegrasyonunda öncü bir e-proje platformudur. Bu çalışmada uzaktan eğitim sürecinde yürütülen eTwinning projelerine yönelik ortaokul öğrencilerinin görüşlerinin incelenmesi amaçlanmıştır. Araştırmanın yöntemi, nitel araştırma modeli desenlerinden olan bütüncül tek durum çalışmasıdır. Çalışma grubunu Kayseri ilinde eTwinning portalında proje yürüterek Ulusal Kalite Etiketleri almaya hak kazanan bir ortaokulda öğrenim gören 6. ve 7. sınıf öğrencileri oluşturmaktadır. Veri toplama aracı olarak uzman görüşleri alınarak oluşturulmuş yarı yapılandırılmış görüşme formu kullanılmıştır. Elde edilen veriler betimsel analiz yöntemi ile analiz edilmiştir. Araştırma sonucunda ortaokul öğrencilerinin eTwinning projelerini iş birliği, eğlenceli ve BİT (teknoloji, web araçları ve internet ağı) kodları ile tanımladığı görülmektedir. eTwinning projelerinin ortaokul öğrencilerinde farklı projelerde proje hedefleri doğrultusunda beceriler kazandırılmasında etkili olduğu tespit edilmiştir. Bunun yanı sıra eTwinning projelerinin ortaokul öğrencilerinde dijital okuryazarlık, el becerileri, iş birliği ve iletişim becerileri gibi genel becerileri geliştirdiği belirlenmiştir. Ayrıca araştırmada uzaktan eğitim sürecinde ortaokul öğrencilerinin eTwinning projelerinin yürütülmesi esnasında yaşadıkları sorunlar (internet ağı, okul dersleri ile beraber yürütme ve iş birliğinde zorlanma gibi) tespit edilerek, belirlenen sorunların çözümüne yönelik önerileri sunulmuştur.

Anahtar Kelimeler: Teknolojinin eğitime entegrasyonu, uluslararası okul projeleri, proje tabanlı öğrenme, etwinning.

ABSTRACT

The digital revolution affecting the 21st century causes changes in educational studies as well as in all life activities. "eTwinning", which provides students with a learning environment by doing and experiencing through digital applications (Web 2.0 tools), is a pioneering e-project platform in the integration of information and communication technologies (ICT) into education. This study aimed to examine the opinions of secondary school students regarding eTwinning projects carried out during the distance education process. The method of the research is a holistic single case study, which is one of the qualitative research model designs. The working group consists of 6th and 7th grade students studying in a secondary school in Kayseri, which has been awarded the National Quality Labels by carrying out

projects on the eTwinning portal. A semi-structured interview form created by taking expert opinions was used as a data collection tool. The findings obtained were analyzed using the descriptive analysis method. As a result of the research, it is seen that secondary school students define eTwinning projects with the codes of collaboration, fun and ICT (technology, web tools and internet network). It has been determined that eTwinning projects are effective in helping secondary school students acquire skills in line with the project objectives in different projects. In addition, it has been determined that eTwinning projects improve general skills such as digital literacy, manual skills, collaboration and communication skills in secondary school students. In addition, in the research, the problems experienced by secondary school students in the implementation of eTwinning projects during the distance education process (such as the internet network, difficulty in cooperating with school lessons) were identified and suggestions were made to solve the identified problems.

Keywords: Integration of technology into education, ınternational school projects, project-based learning, etwinning.

INTRODUCTION

With the pandemic process, information and communication technologies and applications have become widespread both in education and business life. The widespread technological network has become an indispensable part of institutions in science and education, from kindergartens to high school education. Educational institutions have been one of the institutions most affected by developments due to the constant change in existing knowledge, technology and required manpower (Gülcü et al., 2013). The emerging need for international communication has begun to necessitate the development of new skills in people, especially technology literacy, communication and collaboration skills, which are expressed as 21st century skills, are very important. The importance of being technologically literate and the necessity of technology education in the 21st century is emphasized (Şahin & Namlı, 2019). An education system model that will provide individuals with 21st century skills starting from kindergarten age is being adopted (Barnett, 2008; Kesicioğlu, 2019; United Nations Children's Fund [UNICEF], 2018). The role of the teacher in education is also changing, becoming a guide to the student rather than a transmitter of knowledge (Akkoyunlu, 2002; Çeliker et al., 2014; Gülbahar & Tınmaz, 2006). These changes require teachers to have information and communication technologies, language skills, cooperation and communication skills and to follow the innovations in this field.

In our country, many different activities are carried out to ensure that technology has a greater place in education and training. Technology-based learning environments in education can be used for different purposes such as motivation, communication, collaboration, entrepreneurship, preparation, presentation and evaluation of course materials (Şahin, 2019). In the research conducted by Vuorikari, Gilleran and Scimeca (2011), it was determined that the majority of teachers found eTwinning projects suitable for developing information communication technologies, communication, teaching, collaboration and interdisciplinary working skills. Similarly, in the study where Avcı (2021) received teachers' opinions about the eTwinning platform, he stated that teachers worked collaboratively with eTwinning online course applications, learned new teaching methods, benefited from web 2.0 tools and thus used innovative practices in education in the course. These studies highlight the eTwinning platform in digitalization in education.

eTwinning is a nationally and internationally operating e-project platform that brings together preschool children, primary school, secondary school and high school students, and teachers at these levels online (Erasmus+, 2016). eTwinning name consists of the words “e” for “electronic” and “twin” for “mutual partnership”. As its name suggests, it was established within the scope of the Life Long Learning Program to increase cooperation between schools in Europe and support the exchange of good examples (Galvin et al., 2006; Vuorikari et al., 2011). eTwinning projects not only encourage creativity and entrepreneurship by providing a strong

communication opportunity between partners, but also improve communication skills in native and foreign languages with 36 different language options (eTwinning, 2023).

The eTwinning activity, which has increased in popularity in recent years, was organized in 2005 by the European School Network Consortium, financed by the European Commission Education Audiovisual and Culture Executive Agency within the scope of the Erasmus + Programme, carried out by the education ministries or national agencies of 33 European countries and 6 non-European countries and held in Brussels. It is an activity coordinated by the Central Support Service (Erasmus+, 2016). Although eTwinning is an action of the European Commission, this virtual community also includes Turkey and other neighboring countries such as Azerbaijan, Armenia, Georgia, Jordan. eTwinning activity in our country is a free digital platform run by the eTwinning Turkey National Support Service, established within our Ministry's General Directorate of Innovation and Educational Technologies (YEĞİTEK). eTwinning projects, implemented on national and international platforms in order to support the professional competencies of teachers and increase their development and to enable students to learn through project-based learning, have been implemented in Turkey since 2009. Turkey is on the eTwinning platform with 265.896 teachers, 54.863 schools and 46.691 projects (Millî Eğitim Bakanlığı [MEB], 2021).

The eTwinning portal has started to be moved to the European School Education Platform (ESEP) system as of April 1, 2022. The eTwinning system, which started moving on April 1, 2022, is still in the installation phase. When the eTwinning tab in ESEP is examined, there are "Overview", "Groups", "My projects" and "Support" sections. Additionally, in the personal eTwinning section, there are "Notifications", "My dashboard", "My Twinspaces", "My Groups" and "My Profile" sections (European School Education Platform [ESEP], 2023).

The eTwinning platform creates a theme for the audience that creates projects every year. The theme topics of the eTwinning platform for previous years are "Climate Change and Environmental Problems" (2020), "Media Literacy and Disinformation" (2021), "Our Future: Beautiful, Sustainable, Together" (2022) and the 2023 theme "Innovation and Education" has been determined. In this way, solutions or awareness of problems occurring at the international level are provided and projects are carried out in line with common international goals.

The most important feature and basis of the eTwinning platform is that it allows individuals included in the program to increase their personal competence by participating in different activities using information technologies. This process has benefits such as motivation for teachers and students, getting to know different cultures, being informed about educational activities in other European countries, improving the use of foreign languages and being able to use web technologies for educational purposes (eTwinning Turkey, 2017). eTwinning projects can be used in many areas such as coding education, science, technology, engineering, mathematics education, STEM, learning with games, creating creative classes and implementing inclusive education (eTwinning Central Support Service, 2015). Among the eTwinning projects, project studies in the field of science and mathematics have a wide place (MEB, 2021).

In today's world where ICT is developing very rapidly, the eTwinning education platform, which is a network-based learning environment, contributes to the integration of technology into education and the Web 2.0 tools used in its activities can also provide learning that will make lessons interesting. Since eTwinning projects are a network-based learning environment, digital applications create a learning environment for students by doing and experiencing (Gülbay, 2018). Teachers and students who frequently use digital tools on the eTwinning Platform come together through webinars they organize, chat in virtual environments in chat rooms, and carry out their project-related work on the network. Students learn in a more enjoyable way when technology is used in the teaching process (Şahin, 2019). For example, within the scope of the European Union's EU Code Week For All activities, thousands of students gain coding skills by processing information on their favorite computers

(Codeweek, 2023). Many students participate in these events, which are held in October every year, within the scope of the eTwinning projects and are entitled to receive a certificate of excellence (Codeweek Turkey, 2023). This is a factor that increases both learning and motivation in students.

eTwinning is not just a portal where projects are carried out, but also an open resource that facilitates teachers to continue their professional development. As the number of teachers participating in the portal increases, online education needs also increase at the same rate. At this point, professional development seminars are published and updated in the professional development section of the portal. Professional development seminars are published on Massive Online Open Courses (MOOC), prepared by the Turkish National Support Service content development team. Courses with options in Turkish and English continue to be published by updating and adding new topics to the courses (eTwinning Eba, 2020). Teachers who successfully complete the courses can also receive online certificates by taking the end-of-course exams.

As a result of a research conducted by Kearney and Gras Velázquez (2015) on the benefits of eTwinning projects: According to 65% of the teachers, it increased the motivation of teachers and students, 54% said it encouraged cooperation among students and 51% said it was effective in developing interpersonal relationships among students. Teachers participating in eTwinning projects in the research expressed the benefits of eTwinning as their abilities to teach foreign languages, their ability to gain interdisciplinary skills such as teamwork, creativity, problem solving, decision making and teaching through projects. Cachia et al. (2010) using techniques such as literature review, workshops, program analysis, teacher research, interviews and good example analysis, it was stated that e-portals such as eTwinning are a good opportunity for teachers to learn from each other and that teachers should be actively encouraged. As a result of his studies on eTwinning, Naranda (2018) mentioned that eTwinning projects enable students to communicate well and collaborate with students from other countries. It has been stated that eTwinning projects provide and facilitate creativity, necessary digital skills, analytical, critical thinking and problem-solving-oriented thinking. In his research, Akıncı (2018) stated that doing an eTwinning project positively affects students' participation in class and chatting and sharing with strangers leads to positive sensory changes in students. Akıncı also concluded that saving lessons from monotony and teaching them on a digital platform increases the level of motivation, appeals to many senses with rich content and material diversity, thus affecting the performance of students and teachers at a high level.

This research has an important place in terms of raising awareness by providing information about eTwinning, an international e-project platform that has an important place in educating future teachers and students. The research also includes up-to-date information about eTwinning, which has been transferred to the ESEP platform. Considering the studies in the literature, it is seen that most of them are case studies from the teacher's perspective (Akdemir, 2017; Avcı, 2021; Başaran et al., 2020; Cachia et al., 2010; Crişan, 2013; Fat, 2012; Gençtürk Erdem et al., 2021; Gheorghe, 2008; Gouseti, 2012; Gülbay, 2018; Holmes, 2013; Kampylis et al., 2012; Kearney & Gras Velázquez, 2015; Kırıkkaya & Yıldırım, 2019; Selimi & Üseini, 2019; Velea, 2011; Vuorikari et al., 2011; Yamaç, 2018;). So it is thought that this study will provide important feedback since eTwinning projects are evaluated from the perspectives of students. Studies in the literature emphasize that it is very important for the eTwinning platform to be evaluated by students and to put forward their opinions and suggestions (Avcı, 2021). In the literature reviews, it is seen that the studies carried out are examined by another external observer, not by the teacher conducting the project, and data about the study is collected (Başaran et al., 2020; Çavuş et al., 2021; Karataş & Öztay, 2023). However, the fact that one of the authors of this study is a consultant teacher who personally carried out the eTwinning projects under research enabled the production of more detailed data and realistic observations. In addition considering, when looking at general studies, it is seen that the number of students

observed is quite low and they are students working only on a single project (Ahmetoğlu Açıkgöz, 2019; Çevik et al., 2021). This study will contribute to the literature by creating diversity and different perspectives, as it consists of a large number of participants in terms of data diversity, the students are from different grade levels (6th and 7th grades), and the participants are students who take part in different projects.

The students whose opinions were taken carried out eTwinning projects during the distance education process. Considering the collaborations and studies carried out online between countries in many different fields, it is thought that it will be an important study in terms of education, in terms of observing activities that can be done remotely and in terms of observing the reflection of eTwinning projects on students in different conditions.

1.1. Purpose of the Research

The main purpose of this study is to obtain the opinions of secondary school students about eTwinning projects on recycling and digital literacy and to evaluate the eTwinning e-project system from the student perspective.

METHOD

2.1. Research Model

In this research, the case study method, one of the qualitative research methods, and the holistic single case design, one of the case study designs, were used. In single case designs, there is a single unit of analysis. There can often be more than one substrate or unit (6th and 7th grade students) within a single situation. In this case, there will be more than one unit of analysis (Şimşek & Yıldırım, 2008). For this purpose, we tried to reveal the opinions of 6th and 7th grade secondary school students about "eTwinning projects". For these purposes, semi-structured interviews were conducted with students who took part in the projects titled "Research, Learn, Design, Play, Share", "Let Our Streets Become Homes" and "Safety First, Education After", all of which received the National Quality Labels on the eTwinning portal in 2020-2022.

2.2. Working Group

The study group consisted of 19 students (10 girls, 9 boys) from the 6th and 7th grades of a middle school located in a rural area of Kayseri, in the Central Anatolia Region. These students earned the National Quality Label by participating in eTwinning projects in the 2020-2022 academic year. The students participated in three separate projects on the eTwinning portal for three different purposes. The overall objectives of the projects were to use recyclable materials in mind games and digital mind games, to raise awareness about stray animals using recyclable materials, to digitize, and to use the internet safely. Purposive sampling methods were used to select participants. These participants were selected among students at a middle school that had received the Quality Label for conducting an eTwinning project. The students conducted these projects during distance learning and within the context of science courses.

Table 1 shows the general characteristics of the students who make up the study group.

Table 1

Demographic Characteristics of the Students in the Study Group

Demographic Features		Frequency (n)	Percentage (%)
Gender	Female	10	52.63
	Male	9	47.36
Grade	6. Class	9	47.36
	7. Class	10	52.63
Internet Access at Home	Yes	16	84.21
	No	3	15.78
The Technological Tool They Use for Internet Access at Home	Telephone	12	38.70
	Tablet	7	22.58
	Laptop	8	25.80
	Desktop Computer	4	12.90
	We Do Not Use Technological Tools	0	0
Average Time Spent on the Internet per Day	0-1 hour	3	15.78
	1-2 hour	5	26.31
	2-4 hour	7	36.84
	4-6 hour	3	15.78
Taking Part in a Different eTwinning Project Before	Yes	0	0
	No	19	100.00

As shown in Table 1, 36.84% of the participants spent 2-4 hours on the internet. This shows us that the students participating in the project spend a long time on the internet during a day. It is seen that most of the students who have not taken part in any eTwinning project before have internet access at home (84.21%). Many of the students who use different technological tools for internet access have marked more than one option regarding the tool they use, telephone being the most common (f:12). In addition, although there was not much difference between the participation rates in the project, it was determined that 9 students in the study group were at the 6th grade level and 10 students were at the 7th grade level. While 52.63% of these students are female students, 47.36% are male students.

2.3. Limitations of the Study

Research activities are limited to the following items;

- Limited to the 2020-2022 academic year.
- It was limited to 6th and 7th grade students in a public school in Kayseri province.
- The data obtained is limited to the data gained from the students who carried out 3 eTwinning projects mentioned in the research.
- The data obtained is limited to the semi-structured interview form questions directed to students who took part in eTwinning projects carried out using web 2.0 tools in science classes.

2.4. Problem Statement

How are international eTwinning project activities conducted online evaluated from a student perspective?

Sub-problems investigated in the study:

- What are students' opinions about eTwinning projects?
- What are the benefits of eTwinning projects to students?
- What are the challenges faced in carrying out eTwinning projects?

2.5. Implementation

The eTwinning projects conducted within the scope of the research were carried out during the pandemic. The activities to be carried out during the project were determined jointly in line with the project objectives and decided by project team members through voting.

One of the projects, titled "Research, Learn, Design, Play, Share" aimed to create mind games from recyclable materials and play them within the family during the pandemic. Students promoted their mind games by using Web 2.0 tools to other classmates, disseminating their projects and learning how to use different Web 2.0 tools. Additionally, online mind games and tournaments were organized between schools during the project period. The project was conducted during the height of the pandemic and included a phase where mind games were played with family members. Students who won the tournaments were presented with gifts by the project leader teachers. At the end of the project, activities such as writing an acrostic poem as a joint product were conducted with mixed school teams. The project lasted approximately nine months. Ten schools from Türkiye and one school from Italy and their students participated in the project.

The project, titled "Let Our Streets Become Homes" aimed to build shelters for stray animals using recyclable materials and feed them. Additionally, various Web 2.0 tools were used in the project to organize activities related to stray animals. Ten schools and their students from various provinces in Türkiye participated in the project. At the end of the project, a project e-book was created as a joint product with the students.

Another project, titled "Security First, Education Then" aimed to teach students how to use the internet safely. The activities introduced various Web 2.0 tools to students. The project concluded with a virtual exhibition showcasing all the products of the project. A total of 15 schools worked collaboratively on the project including student groups from Turkey (6 schools), Romania (3 schools), Azerbaijan (3 schools), Bosnia and Herzegovina (1 school) and Albania (2 schools).

2.6. Data Collection Tools

For the case pattern study, one of the qualitative research methods, a semi-structured interview form prepared by taking expert opinions was used. In the semi-structured interview method, data is collected through pre-prepared questions and as a result of the interviews, the interviewer may ask the interviewees to explain and elaborate their answers regarding unclear statements (Karasar, 1998). In this study, in addition to using literature sources while creating the semi-structured interview form, the opinions of an academician, a graduate student, two teachers who received the National and European Quality Labels in eTwinning and a Turkish language teacher were taken in terms of spelling and expression suitability. In the semi-structured interview form prepared in the light of the opinions received, the following questions were included in addition to the personal information section:

1) What are the reasons for students to participate in eTwinning projects?

2) What are students' opinions on the positive aspects of eTwinning projects?

3) What are the benefits of eTwinning projects to students?

4) What are students' opinions about the difficulties they encounter during the eTwinning projects?

After giving information about the research to the students, a semi-structured interview form was given. Students were given 40 minutes to answer the questions in the form. In

addition, before data was collected, permission documents were obtained from the students' parents so that the students could participate in the research process.

2.7. Analysis of Data

The data obtained as a result of interviews with data collection tools were analyzed using the descriptive analysis method. For this purpose, codes and themes were created using literature information.

The following procedures were applied during the analysis process, respectively:

- Reviewing the papers,
- Numbering the papers,
- Examining the opinions,
- Developing the categories and distributing the opinions to the categories,
- Conducting validity and reliability studies,
- Interpreting the data and making suggestions by comparing them with the literature.

While analyzing the answers given to the semi-structured interview form, the answers given by the students to the test were collected under different categories. It is seen that categories similar to these categories are also used in the sources in the literature (Başaran et al., 2020; Çavuş et al., 2021; Karataş & Öztay, 2023). While examples of student opinions about the categories are included, students are coded as S1, S2. One-on-one interviews were held with students for questions that required answers that were unclear or required clarification. In these interviews, students were asked about the reasons for their thoughts.

The analysis unit of the research consists of 19 secondary school students in 6th and 7th grades, who constitute the participants of the research in the 2020-2022 academic years.

2.8. Validity and Reliability Studies

Validity and reliability in qualitative research is defined as being believable, transferable, consistent and verifiable (Denzin & Lincon, 1994). Validity is related to how accurately the measurement tool used measures the characteristic of the individual that is intended to be measured (Büyüköztürk, 2008). In the study, content validity was ensured by consulting the opinions of 1 teacher teaching in the field of science education, 1 doctoral student studying for a doctorate in science education, and 2 teachers who carried out eTwinning projects that received European and National Quality Labels in eTwinning. As a result of the feedback from experts, corrections were made and the study was finalized. In order to ensure validity, the coding and analysis of the data were explained in detail (Hruschka et al., 2004). For this purpose, student expressions representing the categories were included (Yıldırım & Şimşek, 2008).

The data in the semi-structured interview form used in the study was asked to be examined and categorized by a different researcher (Observer Triangulation). This aimed to ensure the reliability of the data. The categories obtained by the observers were compared and collected under a category based on common opinion. The consistency of the categories evaluated independently by the researchers was determined as "Consensus" or "Disagreement." The reliability value calculated using the formula [Consensus / (Consensus + Disagreement) x 100] (Miles & Huberman, 1994) was found to be 96%. (For example, one researcher evaluated a long answer given by one of the students under the code "Proper Use of the Internet" while the other researcher evaluated it under the code "Personal Development"). This value was accepted because the reliability value was above 70% (Miles & Huberman, 1994).

FINDINGS

In this study, students' responses to semi-structured interview questions were evaluated and analyzed to determine the impact of eTwinning projects on students and their development. The data obtained were tabulated using coding. The research primarily examined students' reasons for participating in the project. The findings from the analysis of students' responses to the question about their reasons for participating in eTwinning projects are presented in Table 2.

Table 2

Students' Opinions on the Reasons for Participating in eTwinning Projects

Code	Participant	Frequency (n)	Frequency of Rate (%)
Recycle	S1, S15, S17	3	8.82
Using the Internet Correctly	S2, S3, S4, S5, S8	5	14.70
Enjoying Leisure Time	S2, S5, S6, S7, S8, S9, S10, S11	8	23.52
Fun	S5, S7, S9, S11, S16,	5	15.29
Partnership	S9, S10, S17	3	8.82
Staying Away from Technology	S12, S13	2	5.88
Success	S17	1	2.94
Self-improvement	S7, S12, S13, S14, S16, S18, S19	7	20.58
Total	19	34	100

As seen in Table 2, students participated in eTwinning projects for many different reasons. Considering the answers given by the students, it is seen that the rates of their answers in the codes “use of free time” and “personal development” are the highest. Following this, codes such as “using the internet correctly” (f:5) and “having fun” (f:5) stand out. Below are the students' statements that support these data.

S3: “Since we are in touch with the internet, I wanted to use it more accurately.”

S11: “I participated in distance education to learn new things and have fun instead of spending free time at home.”

S17: “I joined to learn how to use waste materials in the best way, to produce successful things in cooperation and to achieve success.”

S18: "Improve myself. Learning and making better designs. Learning more.”

To reveal students' opinions about eTwinning projects, the semi-structured interview form was answered with the question "How would you describe eTwinning projects in 3 words?" There is a section for questions and additional explanations. In order to analyze the meaning of eTwinning projects from the students' perspective, the question "How would you describe eTwinning projects in 3 words?" ?" was asked and the codes for the answers to the question are given in Table 3.

Table 3

Students' Opinions on eTwinning Projects

Code	Participant	Frequency (n)	Frequency of Rate (%)
Partnership	S1, S2, S3, S10, S12, S13, S14, S15, S16, S17	10	18.51
Entertainment	S1, S2, S3, S4, S6, S7, S15, S16	8	14.81
ICT	S3, S4, S5, S6, S7, S10, S11, S13, S14, S18	10	18.51
Recycle	S6, S10, S11, S17	4	7.40
Research and Learning	S4, S5, S7, S8, S9, S11, S18, S19	8	14.81
Producing	S5, S9, S15, S18	4	7.40
Intelligence games	S12, S14	2	3.70
Responsibility	S1, S2, S15, S16	4	7.40
Valuing Time	S4, S5, S8, S17	4	7.40
Total	19	54	100

When the students' answers are examined, most of the students define eTwinning projects with the codes “collaboration” (f:10) and “ICT” (technology, web tools and internet network, communication) (f:10). In addition, the answers they gave within the scope of “entertainment” and “research and learning” are also quite high (f: 8). The codes with which students least defined eTwinning projects least were “brain games” (f:2) and “responsibility”, “use of time”, “production” and “recycling” (f:4).

Examples of students' own expressions of their opinions about eTwinning projects are given below:

S2: “It is both educational and instructive, and I learned to use recyclable materials.”

S9: “It's educational, it's useful, it's thought-provoking, and it gets people to cooperate. This is a really important event.”

S11: “We had a fun time and learned new things during the distance education process. I think more project-based things like this should be created.”

S15: “Recycling waste materials contributed to nature. It saved money. It was an efficient project.”

Their answers to the interview questions conducted to understand the benefits of eTwinning projects from the student perspective are given in Table 4.

Table 4

Students' Opinions on the Benefits of eTwinning Projects

Code	Participant	Frequency (n)	Frequency of Rate (%)
Getting to Know New People	S1, S15	2	5.00
Providing Collaboration	S1, S3, S13, S22	3	7.50
Developing ICT Skills	S1, S2, S4, S5, S6, S7, S8, S9, S10, S11, S17, S18, S19	13	32.50
Recycle	S6, S10, S11, S12, S14	5	12.50
Fun	S6, S10, S16, S19	4	10.00
Learning and Playing Brain Games	S2, S10, S13, S16, S18	5	12.50
Increasing Communication Within the Family	S15, S16	2	5.00
Hand and Design Skill Development	S11, S12, S15, S18, S19	5	12.50
Communication	S17	1	2.50
Total	19	40	100

When the answers given by the students about the benefits of eTwinning projects are examined, it is seen that answer given the most is in the direction of “ICT skills development” with 13 students and answer given the least is “communication” with one student. In addition, it is seen that the rate of the answers emphasizing the concepts of “learning and playing with intelligence games”, “developing manual and design skills” and “recycling”, is high with five students for each code. Examples of students' responses containing the above codes are as follows:

S9: “It taught me how to use the internet safely and usefully and safe web tools at a time when we were deprived of the internet a lot.”

S12: "It helped me strengthen my manual dexterity and stay away from the internet a little longer."

S15: “It increased communication within the family. It taught me new projects. It improved my design skills. It helped me meet new people.”

S16: “It provided many benefits such as adding fun to the distance education process, learning new games, etc. It allowed us to spend more time with our family.”

S17: “It enabled me to communicate with people, present my thoughts and ideas more clearly to the environment and learn to use new applications.”

The answers given by students to the question "What are the difficulties of carrying out eTwinning projects in the distance education process?", which was asked to determine the difficulties they experienced while carrying out eTwinning projects, are given in Table 5.

Table 5

Students' Opinions on the Difficulties They Experienced in Carrying Out eTwinning Projects

Code	Participant	Frequency (n)	Frequency of Rate (%)
Learning New Web 2.0 Tools	S12, S15, S17	3	11.11
Tracking Project Tasks	S19	1	3.70
Conducting with Lessons	S8, S10, S12, S13, S15, S18	6	22.22
Expressing Ideas	S17	1	3.70
Generating New Ideas	S17	1	3.70
Internet Connection	S1, S2, S3, S4, S7, S14, S16	7	25.92
Do Not Collaborate	S16	1	3.70
Material Guarantee	S13	1	3.70
Meeting Hours	S11	1	3.70
Communication	S1, S9, S16	3	11.11
No Difficulties	S5, S6	2	7.40
Total	19	27	100

When the answers given by the students to the question of the difficulties they experienced regarding the implementation of eTwinning projects, which is an online e-project platform, were examined, it was stated that the most common problem was “internet connection”. The answer "Connection problems, not being able to provide consultation or cooperation" is given by student S16. and "I couldn't focus on the project when the internet was cut off," is given by student S1. Their responses support this view. In addition, it has been observed that one of the most common problems is carrying out the lessons together. Student S18 said, "Having other courses, that is, running 2 jobs" and student S8 said, "I had a little difficulty with the classes at first, but then I got used to it." and these statements are examples of student responses to this code. Some examples of other student opinions are given below:

S11: “Sometimes meetings were held and they ended very late and I felt sleepy.”

S17: “I had difficulties learning new practices, expressing my ideas openly with people, or aiming to recycle materials.”

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In this study, the opinions of secondary school students who took part in different eTwinning projects were taken about the eTwinning projects carried out during the distance education process. The aim was to evaluate eTwinning projects from a student perspective by analyzing students' opinions about them, their benefits, and the challenges they faced during their implementation.

Considering the answers given by students to the question about their reasons for participating in eTwinning projects, the fact that the answers “making the most of their free time” and “providing personal development” have the highest rate shows that students fell into a void during the pandemic process. In addition, the high rate of answers such as “using the internet correctly” and “staying away from technology” shows that there is a strong connection with technological tools during the time spent at home. Students who responded in the personal development code stated that they participated in eTwinning projects to improve their manual and design skills and learn new information. The responses given to the benefits of the project as “developing manual and design skills” also show that eTwinning projects can be beneficial to students in developing manual and design skills and learning new information. Yılmaz and

Yılmaz Altun (2012) stated in their study that with eTwinning, students socialize, improve their manual skills and their self-confidence and self-confidence skills also improve. Another study stated that one of the most important contributions of eTwinning projects to students is that they provide an innovative methodological framework to gain competencies (Naranda, 2018).

Among the answers given to the benefits of eTwinning projects, the fact that the students who responded in the information and communication technologies skills (f:13) code included the expressions "using the internet correctly" and "learning new web tools" shows that eTwinning projects are effective in using the internet safely and correctly. Bozdağ (2017) also stated in his study that eTwinning projects contribute to students mostly in terms of technology use and communication skills. Çınar et al. (2024) found that eTwinning projects provide students with the opportunity to engage in collaborative projects, leading to improvements in their overall technological communication and development. According to Şahin (2019), ICT skills contribute to the success of students with visual and auditory activities during the education process. As a result of his study on eTwinning, Gheorghe (2008) touched upon the importance of teachers using the online tools learned in eTwinning projects in the classroom. eTwinning projects also increase the use of Web 2.0 tools in classrooms, which are collaborative and efficient in the advancement of information and communication technologies. Considering this situation, it is thought that eTwinning projects will be an important step to ensure digital literacy in education. Additionally, Karakaşlar Gezgin and Gökbaş Çabuk (2021) state that eTwinning projects enable students to gain digital literacy skills. Naranda (2018) said that eTwinning allows students to get to know the web 2.0 tools and develop security awareness about the internet and digital citizenship without space and time restrictions. Again, eight students responded in the "fun" category, which shows that eTwinning projects are carried out with pleasure by students. The activities included in eTwinning projects create a fun learning environment and encourage students to learn. It is stated in many different sources that learning by having fun increases motivation and creates a desire to participate in activities (Batdı, 2014; Camci, 2012; Çavuş et al., 2021; Mergendoller & Thomas, 2005; Oana, 2008; Van de Craen, 2008). For this reason, it is thought that eTwinning projects can be used especially for subjects and units where students' motivation is low.

Students defined the eTwinning projects carried out in distance education with collaboration, fun and ICT (technology, web tools and internet network) codes. eTwinning projects are defined in many sources as an application that provides cooperation and motivation that enables intercultural interaction (Abaratzis, 2020; Başaran et al., 2020; Kesik & Balcı, 2016; Memişoğlu & Tapan Broutın, 2018; Naranda, 2018; Yılmaz, 2012). Thus, it was observed that there was an increase in students' sense of responsibility and learning behavior from their peers. With cooperative learning, which is used in studies carried out with a certain common purpose, students' success, as well as their leadership, self-confidence and feelings of sharing are strengthened (Açıkgöz & Güngör, 2006). Velea (2011) stated that students are very interested in collaborative eTwinning projects using computers. Bolaño Bascuñana (2024) concluded in his research that eTwinning projects not only foster English-speaking students' competence, but also foster collaborative work and ICT development. As a result of the research, it was seen that students defined their eTwinning projects in a way that included the themes of their projects.

To the question of the benefits of eTwinning projects, some students answered recycling, learning and playing intelligence games. Again, some students included the expressions "recycling" and "environmentally beneficial" in their opinions about eTwinning. These expressions show us that students' learning is in line with the purpose of the project carried out in eTwinning. In parallel with our data, Papadakis and Kalogiannakis (2010), in their research with early childhood students, stated that children became more interested in natural science with the eTwinning project. Again, as a result of Avcı's (2020) study analyzing parent opinions about eTwinning, it was concluded that children's behavior in contributing to recycling, interest

in nature and the desire to spend time in nature increased thanks to the project. Opria (2024) investigated the impact of eTwinning projects on developing students' specific skills related to climate change. The data from these studies concluded that eTwinning projects provide added value to the educational process by significantly contributing to the development of generations sensitive to the environment and climate change. In her research, Yılmaz (2025) stated that eTwinning project activities on environmental issues in science classes had a significant impact on students' environmental literacy. This situation shows us that the goals have been achieved in bringing the general themes of eTwinning to the international level and that eTwinning serves its purpose appropriately.

It seems that the most important problem regarding the implementation of eTwinning projects is technical and network-related since it is an e-project. 7 of 19 students mentioned the problem they experienced due to connection problems. In addition, 6 students stated that they had difficulty in carrying out the eTwinning process together with the courses during the distance education process. Teachers involved in eTwinning projects also stated that having some problems accessing the internet caused disruptions in the implementation process (Başaran et al., 2020; Bozdağ, 2017). Abaratzis (2020) stated that during the implementation of the eTwinning project, a school infrastructure problem was encountered, which caused loss of time and various problems in communicating with partners. Again, Akdemir (2017) mentioned that internet infrastructure problems and insufficient technical support of schools create problems in eTwinning projects. Beşiktepe (2024) attempted to reveal the effects of eTwinning projects on students and teachers and the problems encountered during project implementation. It has been revealed that during the execution of the projects, the workload of the project, communication in a foreign language, lack of technological tools such as computers and tablets, access to the internet and timing create problems.

Precautions that can be taken based on students' statements will increase the efficiency of students in the project process. In light of the findings observed as a result of the study, the following recommendations can be made:

- An infrastructure can be created for network connections and technological tools to be used in schools where eTwinning projects will be carried out.
- Since eTwinning projects will be an important resource in the process of integrating technology into education, their use and encouragement can be increased.
- Since eTwinning projects provide social skills such as collaboration and communication, they can also be used for students with special needs and communication problems.
- Incentive seminars can be organized for students to disseminate eTwinning projects.
- Data can be collected using expanded and different questions in new research on eTwinning.
- Data that includes teacher opinions can be collected and evaluated in future studies.
- Further research can examine the effects of eTwinning projects on different skills.
- Studies can be conducted on eTwinning projects across different subjects and across different subjects.
- Research in this area can be conducted on students of different age groups and the effects of eTwinning projects on students can be examined.

REFERENCES

Abaratzis, D. (2020*). Investigating the effects of eTwinning on the school community, by Institutional Repository*, Library & Information Centre, University of Thessaly, pp. 4-112.

Açıkgöz, K. Ü. & Güngör, A. (2006). The effects of cooperative learning method on the use of reading comprehension strategies and attitudes towards reading. *Journal of Educational Management in Theory and Practice, 12*(4), 481-502.

Ahmetoğlu Açıkgöz, N. (2019). *The effect of e-twinning ımplementation on the proficiency and attitudes of 10th grade vocational and technical anatolian hing school efl students towards english courses in Turkey, graduate school of educational sciences* [Master's thesis, Anadolu University]. YÖK Thesis Center.

Akıllı, C. (2017). *The encountered problems of educational projects prepared and implemented by teachers and school managers in terms of project cycle management (The sample of Elazığ)* [Master's thesis, Fırat University]. YÖK Thesis Center.

Akkoyunlu, B. (2002). Educational technology in Turkey: past, present and future. *Educational Media International, 39* (2), 165-174.

Akdemir, S. A. (2017). eTwinning in language learning: the perspectives of successful teachers. *Journal of Education and Practice 8(10),* 182-190.

Avcı, F. (2021). Teachers' opinions and evaluations about the eTwinning platform as an online learning environment. *Cumhuriyet International Journal of Education, 10*(1), 1-22.

Aydoğmus, M., & Sünbül, A. M. (2015). Analyzing the Appropriate Realization Level of Comenius Projects in Terms of Some Variables Based on Teachers' Perceptions, *International Journal of Technical Research and Applications, 20*, 01-03.

Barnett, W. S. (2008). *Preschool education and its lasting effects: research and policy implications.* Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. http://epicpolicy.org/publication/preschooleducation

Başaran, M., Kaya, Z., Akbaş, N. & Yalçın, N. (2020). The reflection of eTwinning activity on teachers' professional development in the project-based teaching process. *Journal of Educational Theory and Practice Research, 6*(3), 373-392.

Batdı, V. (2014). The effect of activity-based learning approach on academic achievement (A meta-analytic and thematic study). *E-International Journal of Educational Research, 5*(3), 39-55. https://doi.org/10.19160/e-ijer.12976.

Beşiktepe, G. (2024). Öğretmenlerin eTwinning projelerine yönelik görüşleri: katkılar, sorunlar, çözümler. *Asya Studies, 8*(27), 29-46.

Bolaño Bascuñana, L. (2024, May 1). *Information and communication technologies (ICTs) in education: eTwinning projects as a solution to improve oral skill in English.* Universitat d' Alacant. https://rua.ua.es/dspace/handle/10045/144184

Bozdağ, Ç. (2017). Technology integration in schools in Germany and Turkey: a comparative study on the example of eTwinning. *Journal of Ege Education Technologies, 1*(1), 42- 64.

Büyüköztürk, Ş. (2008). *Handbook of data analysis for the social sciences* (9th ed.). Ankara:Pegem A Publishing.

Cachia, R., Ferrari, A., Ala-Mutka, K. & Punie, Y. (2010). *Creative learning & innovative teaching: final report on the study on creativity and innovation in educationin the*

EU member states (No. EUR 24675). Seville: European Commission- Joint Research Centre -Institute for Prospective Technological Studies.

Crişan, G., I. (2013). The ımpact of teachers' participation in etwinning on their teaching and training. *Acta Didactica Napocensia, 6*(4), 19-28.

Camci, F. (2012). *Effect of activity-based teaching grounded on active learning on students' academic skills and learning proces* [Master's thesis, Adıyaman University]. YÖK Thesis Center.

Çavuş, R., Balçın, M. D. & Yılmaz, M. M. (2021). Opinions of science teachers about their experiences in eTwinning project processes. *Cumhuriyet International Journal of Education, 10*(1), 246-272.

Çeliker, H. D., Aköz, O. & Genç, H. (2014). Activity sample project based learning supported with scenario on matter and heat in 6th grade. *Journal of Education and Training Research, 3*(3), 341-349.

Çevik, M., Barış, N., Şirin M., Ortak Kılınç, Ö., Kaplan, Y., Atabey Özdemir, B., Yalçın, H., Şeref, G., Topal, S. & Delice, T. (2021). The effect of dijital activities on the technology awareness and computational thinking skills of gifted students (eTwinning project example). *International Journal of Modern Education Studies, 5*(1), 205-244.

Çınar, E., Avaroğlu, N., Tunç, G., & Taşkaya, S. (2024). An analysis of the impact of eTwinning projects on teachers and students in terms of teachers' views. *Journal of Education and New Approaches, 7*(1), 1-9.

Codeweek. (2023). Accessed on July 29, 2025, from https://codeweek.eu/training .

Codeweek Turkey. (2023). Accessed on July 29, 2025, from http://codeweekturkiye.eba.gov.tr/?page_id=24 .

Denzin, N. K. (1978). *Sociological methods:a sourcebook*. New York, NY: McGraw-Hill.

Denzin, N. K. & Lincoln, Y. S. (1994). *Handbook of qualitative research: California*. Sage Publications, USA.

Erasmus+, (2016). *Erasmus+ Program Guide.*

https://www.etwinning.net/files/EN_eTwinning_Report_2012.pdf

eTwinning Turkey (2017). *Benefits of eTwinning.* http://etwinning.meb.gov.tr/etwinningin-faydalari/

eTwinning Eba (2020). *Professional development seminars*. http://etwinningonline.eba.gov.tr/

European School Education Platform [ESEP]. (2023). *eTwinning project execution portal.* https://school-education.ec.europa.eu/tr/etwinning/support

Fat, S. (2012, April). The impact study of eTwinning projects in Romania. *Paper presented at the 8th International Scientific Conference eLearning and Software for Education.*

Galvin, C., Gilleran, A., Hogenbirk, P., Hunya, M., Selinger, M. & Zeidler, B. (2006). Pedagogical advisory group- reflections on eTwinning: Collaboration and enrichment of eTwinning and the added value of eTwinning projects. *Brüksel:* eTwinning Central Support Service, 29, 2014.

Gençtürk Erdem, E., Başar, F. B., Toktay, G., Yayğaz, İ. H. & Küçüksüleymanoğlu R. (2021). *International Journal of Social Sciences and Education Research Online, 7*(3), 204-2019.

Gheorghe, O. (2008). eTwinning in 2008. In: Elearning. Romania. Bucharest: TEHNE - Center for Development and Innovation in Education. http://www.elearning.ro

Gouseti, A. (2012). *A comparative investigation of the use of digital technologies to facilitate school collaboration within the framework of the eTwinning programme* [Doctoral thesis, University of London].

Gülbahar, Y. & Tınmaz, H. (2006). Implementing Project-Based Learning And E-Portfolio Assesment In an Undergraduate Course. *ISTE (International Society for Technology in Education),* 309-327.

Gülbay, E. (2018). eTwinning collaborative learning environment in initial teacher education. *International Journal of Advanced Research in Science, Engineering and Technology*, 5234-5242.

Gülcü, A., Solak, M., Aydın, S. & Koçak, Ö. (2013). Opinions of subject teachers working in primary education regarding the use of technology in education. *Electronic Turkish Studies, 8*(6), 195-213.

Hruschka, D.J., Schwartz, D., St. John, D.C., Picone-Decaro, E., Jenkins, R.A. & Carey, J.W. (2004). Reliability in coding open-ended data: Lessons learned from HIV behavioral research. *Field Methods,16*(3), 307-331.

Kampylis, P., Bocconi, S., & Punie, Y. (2012, August). Fostering innovative pedagogical practices through online networks: the case of eTwinning. In *Proceedings of the SQM/INSPIRE 2012 Conference, Tampere, Finland* (pp. 21-23).

Karakaşlar Gezgin, S. & Gökbaş Çabuk, M. (2021). Implementation of eTwinning projects: founding teacher perspectives, *Anatolian Teacher Journal, 5*(2), 380-398.

Karasar, N. (1998). *Scientific research method (8th Ed.).* Ankara: Nobel.

Karataş, F. R. & Öztay, E. S. (2023). Opinions of teachers and students about eTwinning project applications. *IBAD Journal of Social Sciences, 14,* 105-120.

Kearney, C. & Gras-Velázquez, À. (2015). *eTwinning: Ten years on. Impact on teachers practice, skills, and professional development opportunities, as reported by eTwinners.* Brüksel: Central Support Service of eTwinning (CSS).

Kesicioğlu, O. S. (2019). *Mathematics education and its importance in early childhood.* (Ed.) Gonca Uludağ. Ankara: Atlas Academic Press.

Kesik, F. & Balcı, E. (2016). Evaluation of EU projects in terms of their contributions to schools: A scale development study. *Kastamonu Education Journal, 24*(4), 1621-1640.

Kırıkkkaya, E. B. & Yıldırım, İ. (2019). What do science teachers think about educational portals?. *International Journal of Scientific Research,* 222- 235.

Köstereliođlu, İ., Bayar, A. & Akın-Köstereliođlu, M. (2014). Activity-based learning process in teacher education: A case study. *Electronic Turkish Studies, 9*(2), 1035-1047.

Memişoğlu, B. & Tapan Broutın, M. S. (2018, Ekim). Integration of Fatih project components into the eTwinning project, *International Necatibey Education and Social Sciences Research Congress (UNESAK)*, vol.5, Balıkesir, Turkey, pp.152-163.

Mergendoller, J. R., & Thomas, J. W. (2005). Managing project based learning: Principles from the field. *Retrieved June, 14*.

Mert-Cüce, A. P. (2012). *Reflections from the activity-based mathematics teaching classroom environment: Action research* [Master's thesis, Karadeniz Technical University]. YÖK Thesis Center.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis (2nd ed.).* Thousand Oaks, CA: Sage

Millî Eğitim Bakanlığı [MEB]. (2021). *National quality label evaluation proces.*

http://etwinning.meb.gov.tr/wpcontent/uploads/2020/12/2021_Kalite_Etiketi_Sureci_1.12.2020.pdf.

Naranda, I. (2018). Learning in an atmosphere of international cooperation and play. *MIPRO 2018 CE*, 959- 964.

Oana, G. (2008). eTwinning in 2008. *Elearning. Romania. Bucureşti: TEHNE-Centrul pentru Dezvoltare şi Inovare în Educaţie.* Available online: http://www.elearning.ro

Opria, S. (2024). *Erasmus+ and eTwinning projects in developing school students' specific skills related to climate change* (No. EGU24-2186). Copernicus Meetings.

Selimi, A. & Üseini, A. (2019). Developing digital competence and entrepreneurial skills through innovative education – the case of North Macedonia. *ICEB'19 – International Congress of Economics and Business*, 204-213, Bursa.

Selimi, A., & Üseini, A. (2019, April). Development of Digital Competence and Entrepreneurship Skills via Innovative Education – a Case Study of the North Macedonia. In *ICEB'19-International Congress of Economics and Business* (pp. 11-13).

Şahin, A. (2019). Teacher opinions on the use of information technology in education: Metaphor study. *Adıyaman University Social Sciences Institute Journal*, 31, 121-159.

United Nations Children's Fund [UNICEF]. (2018). *Learning Through Play*. https://www.unicef.org/sites/default/files/2018-12/UNICEF-Lego-Foundation-Learning-through-Play.pdf

Van de Craen, P. (2008). 15. Content-and language-integrated learning, culture of education and learning theories. In *Reflections on Language and Language Learning* (pp. 209-220). John Benjamins Publishing Company.

Velea, S. (2011, October). ICT in education: responsible use or a fashionable practice. The impact of eTwinning action on the education process. In *ICVL. Proceedings of the 6th International Conference on Virtual Learning. Bucharest: University of Bucharest Publishing House*.

Vuorikari, R., Berlanga, A., Cachia, R., Cao, Y., Fetter, S., Gilleran, A., Ralf, K., Punie, Y., Scimeca, S., Sloep, P. & Petrushyna, Z. (2011, December). ICT-based school collaboration, teachers' networks and their opportunities for teachers' professional development-a case study on eTwinning. In *International Conference on Web-based Learning* (pp. 112-121). Berlin, Heidelberg: Springer Berlin Heidelberg.

Yamaç, A. (2018). An overview of new literacies: some recommendations for policy makers, researchers and teachers. *Journal of Theoretical Educationalsciences, 11*(3), 383-410.

Yıldırım, A. & Şimşek, H. (2008). *Qualitative research methods in the social sciences.* Ankara: Seçkin Publishing House.

Yılmaz, F. (2012). Multiculturalism project: Student opinions on e-twinning applications. *Journal of Dicle University Social Sciences Institute, 4*(8), 120-132.

Yılmaz, M. (2025). *The Effect of eTwinning project activities enriched with web 2.0 tools on 7th grade students' environmental and digital literacy and entrepreneurship perceptions: ecopreneurship model* [Doctoral thesis, Gazi University]. YÖK Thesis Center.

GENİŞLETİLMİŞ ÖZ

Pandemi süreci ile birlikte bilgi iletişim teknolojilerinin eğitim ve iş alanında kullanımı yaygınlaşmıştır. Eğitim kurumları; var olan bilginin, teknolojinin ve insan gücüne duyulan ihtiyacın sürekli değişmesiyle yaşanan gelişmelerden en çok etkilenen kurumlardan biri olmuştur (Gülcü vd., 2013).

Vuorikari, Gilleran ve Scimeca (2011) öğretmenlerin büyük çoğunluğunun bilgi iletişim teknolojilerini, iletişimi, öğretimi, iş birliğini ve disiplinlerarası çalışma becerilerini geliştirmede eTwinning projelerini uygun gördüklerini tespit etmişlerdir (Avcı, 2021). Literatürdeki çalışmaların çoğunluğunun öğretmen bakış açısıyla vaka çalışması olduğu görülmektedir (Akdemir, 2017; Avcı, 2021; Başaran vd., 2020; Cachia vd., 2010; Crişan, 2013; Fat, 2012; Gençtürk Erdem vd., 2021; Gheorghe, 2008; Gouseti, 2012; Gülbay, 2018; Holmes, 2013; Kampylis vd., 2012; Kearney & Gras Velázquez, 2015; Kırıkkaya & Yıldırım, 2019; Selimi & Üseini, 2019; Velea, 2011; Vuorikari vd., 2011; Yamaç, 2018). Bu çalışmanın diğerlerinden farklı olarak öğrenci açısından bir değerlendirme içermesi yönüyle eTwinning projeleri açısından önemli geri bildirimler sağlayacağı düşünülmektedir. Mevcut çalışmanın yazarlarından birinin bizzat araştırma yapılan eTwinning projelerini yürüten bir danışman öğretmen olmasının daha detaylı veriler ve gerçekçi gözlemler üretilmesini sağlamıştır.

Bu araştırmanın temel amacı, geri dönüşüm ve dijital okuryazarlık üzerine yürütülen eTwinning projeleri hakkında ortaokul öğrencilerinin görüşlerini alarak eTwinning e-proje sisteminin öğrenci bakış açısıyla değerlendirilmesidir.

Yöntem

2.1. Araştırma Modeli

Bu araştırmada nitel araştırma yöntemlerinden durum çalışması yöntemi ve durum çalışması desenlerinden bütüncül tek durum deseni kullanılmıştır. Çalışmada 6 ve 7. sınıf ortaokul öğrencilerinin "eTwinning projeleri" hakkındaki görüşleri yarı yapılandırılmış görüşmeler yoluyla belirlenmiştir.

2.2. Çalışma Grubu

Çalışma grubu, İç Anadolu Bölgesi'nde Kayseri ili kırsalında bulunan bir ortaokulun 6 ve 7. sınıflarında öğrenim gören 19 öğrenciden (10 kız, 9 erkek) oluşmaktadır. Çalışma grubunu oluşturan bu öğrenciler, 2020-2022 eğitim-öğretim yıllarında eTwinning projelerine katılarak Ulusal Kalite Etiketi almaya hak kazanmış öğrencilerdir. Katılımcıları seçerken amaçlı örnekleme yöntemi uygulanmıştır.

2.3. Veri Toplama Araçları

Nitel araştırma yöntemlerinden biri olan durum çalışması için uzman görüşleri alınarak hazırlanan yarı yapılandırılmış görüşme formu kullanılmıştır. Hazırlanan yarı yapılandırılmış görüşme formunda öğrencilerin eTwinning projelerine katılma nedenleri, eTwinning projelerinin olumlu yönleri hakkındaki görüşleri ve öğrencilere sağladığı faydalar ile eTwinning projeleri sırasında karşılaştıkları zorluklara ilişkin görüşlerini belirlemeye yönelik sorular bulunmaktadır.

2.4. Verilerin Analizi

Veriler betimsel analiz yöntemi ile analiz edilmiştir. Literatürden yararlanılarak kod ve temalar oluşturulmuştur.

2.5. Geçerlik ve Güvenirlik Çalışmaları

Araştırmada farklı uzmanların görüşleriyle kapsam geçerliği sağlanmıştır. Geçerliği sağlamak için verilerin kodlanması ve analizi ayrıntılı açıklanmıştır (Hruschka vd., 2004). Kategorileri temsil eden öğrenci ifadelerine yer verilmiştir (Yıldırım & Şimşek, 2008). Verilerin analizinde gözlemci üçgenlemesi yöntemi kullanılarak verilerin güvenirliğini sağlanmıştır.

Bulgular

Araştırma kapsamında "Araştır, Öğren, Tasarla, Oyna, Paylaş/Search, Learn, Desing, Play, Share" adlı proje, geri dönüşüm malzemelerinden zeka oyunları yapılarak oynanan ve online zeka oyunları ile okullar arası turnuvalar yapılan bir projedir. "Sokaklarımız Yuva Olsun" projesi kapsamında geri dönüşüm malzemeleri kullanılarak sokak hayvanlarına yuvalar yapılmış, çeşitli Web 2.0 araçları kullanılarak sokak hayvanları konulu etkinlikler yapılmıştır. "Önce Güvenlik, Sonra Eğitim/Safety First, Education After" adlı projede amaç öğrencilere internetin güvenli kullanımının öğretilerek farklı Web 2.0 araçlarının kullanılmasını sağlamaktır.

Öğrencilerin eTwinning projelerine katılma nedenlerine ilişkin "boş zamanlarını değerlendirme" ve "kişisel gelişim" kodlarında verdikleri cevapların yüksek olduğu görülmektedir. Öğrenciler eTwinning projelerini "iş birliği" (f:10) ve "BİT" (f:10) kodları ile tanımlamaktadır. Öğrencilerin eTwinning projelerinin yararları hakkında verdikleri yanıtlar incelendiğinde en fazla yanıtın "BİT becerileri geliştirme" doğrultusunda olduğu görülmektedir. Öğrencilerin online bir e-proje platformu olan eTwinning projelerinin yürütülmesine dair yaşadıkları zorlukların neler olduğu sorusuna verdikleri yanıtlar incelendiğinde en fazla yanıtın "internet bağlantısı" olduğu görülmüştür.

Tartışma, Sonuç ve Öneriler

Öğrencilerin eTwinning projelerine katılma nedenlerine verdikleri cevaplar içerisinde "boş zamanlarını değerlendirme" ve "kişisel gelişim sağlama" yanıtlarının en fazla orana sahip olması, pandemi sürecinde öğrencilerin boşluğa düştüğünü göstermektedir. Bunun yanı sıra "interneti doğru kullanma" ve "teknolojiden uzak durma" cevaplarının yüksek oranda verilmesi, pandemide teknolojik araçlar ile kuvvetli bir bağın olduğunu göstermektedir. Kişisel gelişim kodunda yanıtlar veren öğrenciler, el ve tasarım becerilerini geliştirmek ve yeni bilgiler öğrenmek için eTwinning projelerine katıldıklarını belirtmişlerdir. Araştırmalarda da eTwinning projelerinin öğrencilere yeterlikleri kazanmak için yenilikçi bir metodolojik çerçeve sağladığı belirtilmiştir (Naranda, 2018; Yılmaz & Yılmaz Altun, 2012).

Yürütülen eTwinning projelerinin olumlu yönleri ile ilgili soruya verilen yanıtlardan bilgi ve iletişim teknolojileri becerileri kodunda yanıt veren öğrencilerin "interneti doğru kullanma" ve "yeni web araçları öğrenme" ifadelerine yer vermesi internetin güvenli ve doğru kullanılmasında eTwinning projelerinin etkili olduğunu göstermektedir. Benzer araştırmalar eTwinning projelerinin öğrencilere en çok teknoloji kullanımı ve iletişim becerileri konularında katkı sağladığını göstermiştir (Bozdağ, 2017; Gezgin & Gökbaş Çabuk, 2021; Gheorghe, 2008; Karakaşlar Gezgin & Gökbaş Çabuk, 2021; Naranda, 2018; Şahin, 2019). Bu durum göz önüne alındığında eTwinning projelerinin eğitimde dijital okuryazarlık sağlamak adına önemli bir adım olacağı düşünülmektedir. Yine "eğlenme" kategorisinde yanıtlar verilmesi eTwinning projelerinin öğrenciler tarafından sevilerek yürütüldüğünü göstermektedir. Farklı birçok kaynakta da eğlenerek öğrenmenin motivasyonu arttırdığı ve faaliyetlere katılım isteği oluşturduğu belirtilmiştir (Batdı, 2014; Camci, 2012; Çavuş vd., 2021; Mergendoller &

Thomas, 2005; Oana, 2008; Van de Craen, 2008). Bu nedenle özellikle öğrencilerin motivasyonunun düşük olduğu konular için eTwinning projelerinden yararlanılabileceği düşünülmektedir. Öğrenciler uzaktan eğitimde yürütülen eTwinning projelerini iş birliği kodu ile tanımlamışlardır. eTwinning projeleri birçok kaynakta da kültürlerarası etkileşimi, iş birliği ve motivasyonu sağlayan bir uygulama olarak tanımlanmaktadır (Abaratzis, 2020; Başaran vd., 2020; Kesik & Balcı, 2016; Memişoğlu & Tapan Broutın, 2018; Naranda, 2018; Yılmaz, 2012). eTwinning projesi sayesinde öğrencilerde sorumluluk duygusu ve akranlarından öğrenme davranışlarında artış olduğu görülmüştür. Bu araştırmada öğrencilerin eTwinning projelerini, projelerine konu olan temaları içerecek şekilde tanımladıkları tespit edilmiştir.

eTwinning projelerinin yararlarının neler olduğu sorusuna "geri dönüşüm", "BİT" ve "zeka oyunları öğrenme" cevapları veren öğrencilerin sayısı çok olmuştur. Bu ifadeler öğrencilerde gerçekleşen öğrenmenin eTwinning'de yapılan projenin amacı doğrultusunda olduğunu göstermektedir. Benzer şekilde daha önce yapılan çalışmalarda da yürütülen eTwinning projelerinde öğrencilerin proje temasına uygun kazanımlar elde ettiği görülmüştür (Avcı, 2020; Papadakis & Kalogiannakis, 2010). Bu durum hem eTwinning temalarının uluslararası düzeyde kazandırılmasında hedeflere ulaşıldığını hem de eTwinning'in amaca uygun hizmet ettiğini göstermektedir.

eTwinning projelerinin yürütülmesi ile ilgili göze çarpan en önemli sorunun e-proje olması, sorunun teknik ve ağ kaynaklı olduğunu göstermektedir. eTwinning projelerinde yer alan öğretmenler de internete erişim konusunda bazı sorunlar yaşamalarının uygulama sürecinde aksaklıklara neden olduğunu belirtmişlerdir (Abaratzis, 2020; Akdemir, 2017; Başaran vd., 2020; Bozdağ, 2017).