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Investigation of Online Education Readiness of Teachers Involved in eTwinning Quality Processes in the Context of Various Variables (Example of Eskişehir Province) [1]

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Abstract

In this research, it is aimed to examine the readiness for online education of teachers who are members of the eTwinning platform (eTwinner) and who take part in the project processes that present a quality label as a result, in the context of demographic and technology usage variables and to develop suggestions in this direction. The research, based on the cross-sectional survey model, was carried out with 384 teachers working in Eskişehir and registered on the eTwinning portal in the 2022-2023 academic year. The K–12 Teachers' Online Teaching Readiness Scale was applied. In the analysis of the data, a t-test was used for variables with two sublevels, and one-way ANOVA was used for the variables with more than two sublevels. In case of a difference in the ANOVA test, post-hoc tests were used to determine the pairwise differences. The results showed that the average level of readiness for online education of eTwinner teachers working in Eskişehir is high and the group with the highest readiness for online education is teachers with a service period of 1-10 years. Among the factors of educational technology proficiency, learner readiness, and relative usefulness, male teachers were more than female. On the other hand, it is a remarkable result in the research that female teachers have higher proficiency in pedagogical and ethical competency than male teachers, and that postgraduate teachers in technical and pedagogical, and ethical competence have higher proficiency than those with undergraduate degrees.

Keywords: *Online Education, Readiness, Etwinning, Quality Process, Teachers and Technology*

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eTwinning Kalite Süreçlerinde Görev Alan Öğretmenlerin Çevrimiçi Eğitime Hazırbulunuşluklarının Farklı Değişkenler Bağlamında İncelenmesi (Eskişehir İli Örneği)

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Öz

Bu araştırmada eTwinning platformunda üyeliği bulunan (eTwinner) ve sonucunda bir kalite etiketi sunan proje süreçlerinde görev alan öğretmenlerin çevrimiçi eğitime hazırbulunuşluklarını demografik ve teknoloji kullanımına ilişkin değişkenler bağlamında incelemek ve bu doğrultuda öneriler geliştirmek amaçlanmıştır. Kesitsel tarama modeli temel alınarak gerçekleştirilen araştırma 2022-2023 eğitim-öğretim yılında Eskişehir'de görev yapan ve eTwinning portalında kayıtlı 384 öğretmen ile gerçekleştirilmiştir. Öğretmenlerin çevrimiçi eğitime ilişkin hazırbulunuşluklarını ortaya çıkarmak ve çevrimiçi eğitime hazırbulunuşluklarını farklı değişkenler bağlamında incelemek amacıyla, K-12 Öğretmenleri Çevrimiçi Eğitim Hazır Bulunuşluk Ölçeği uygulanmıştır. Verilerin analizinde öncelikle normallik varsayımı test edilmiş sonrasında değişken durumuna göre parametrik testlerden bağımsız örneklem t-testi ve tek yönlü varyans analizi (ANOVA) gerçekleştirilmiştir. ANOVA analizi sonrası oluşan ikili farkların tespitinde Post-Hoc testlerinden yararlanılmıştır. Araştırmanın sonucunda; Eskişehir'de görev yapan eTwinner öğretmenlerin çevrimiçi eğitime hazırbulunuşluk düzeyi ortalamalarının yüksek düzeyde olduğu ve çevrimiçi eğitime hazırbulunuşluğu en yüksek grubun 1-10 yıl arası hizmet süresine sahip öğretmenler olduğu görülmüştür. Eğitim teknolojileri yeterliği, öğrenen hazırbulunuşluğu ve göreli yararlılık faktörlerinde erkek öğretmenlerin kadınlardan; kadın öğretmenlerin ise pedagojik ve etik yeterlilikte erkeklere göre yüksek yeterliliğe sahip olduğu, teknik yeterlikte ve pedagojik ve etik yeterlilikte lisansüstü mezun öğretmenlerin lisans mezunu olanlardan daha yüksek yeterliliğe sahip olduğu araştırmada dikkat çeken bir sonuçtur.

Anahtar Kelimeler: *Çevrimiçi Eğitim, Hazırbulunuşluk, eTwinning, Kalite Süreçleri, Öğretmenler ve Teknoloji*

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Introduction

Educators such as teachers and school administrators are expected to adapt to the rapid changes and developments of the 21st century and update the education methods they use in the education process. Online education, which has come to the fore with the developments in computer and internet technology and can be considered an important tool in updating the educational approaches, methods, and techniques used by teachers in the education process, has been implemented in Turkey as well as in many countries of the world in recent years and is becoming widespread day by day (Telli and Altun, 2021). Being able to take place anytime and anywhere, eliminating the limitations of time and space, and providing lifelong learning are described as the most basic factors in the spread of online education. In addition, due to the Covid-19 global epidemic, which has affected the whole world recently, there has been a rapid increase in the distance education process and the number of learners who have to take online education based on this process (Özen, 2022). The increase in the number of learners has highlighted the fact that teachers, who are in the position of teaching, acquire knowledge and skills in online distance education environments and develop their knowledge and skills. Based on these views, it is thought that the readiness of teachers in online education has become important in related learning environments.

Online learning, which includes the integration of new technologies such as the internet, intranet, e-mail and satellite broadcasts into the learning process, is defined by Contreras and Shadi (2015) as the use of electronic media, educational technology and information and communication technologies (ICT) in education (Mosa, Mahrin and İbrahim, 2016). Readiness for online learning is defined as the ability of potential e-learning users to use alternative technologies as well as a new learning environment (Hashim and Tasir, 2014, p.267). According to Borotis and Poulymenakou (2004), online learning readiness is "an individual's mental or physical preparation for some e-learning experience or action". Readiness for online learning should also be seen as "factors that must be realized before e-learning implementation (Odunaike et al., 2013 as cited in Mosa, Mahrin and Ibrrahim, 2016; Sakal, 2017).

Today, interest in online education and student-centered education has increased. As an example, Stanford University started to implement Education 4.0, which emerged in parallel with Industry 4.0 in 2013 and includes data-based technology integration such as artificial intelligence and big data, as a training program at the origin of the increasing interest (Kılıç, 2018 as cited in Şimşek and Fiş Erümit, 2022). In this context, teacher competencies have also come to the fore in terms of changing expectations and needs in educational institutions. Within the scope of the general competencies of the teaching profession, teachers are expected to use information and communication technologies effectively in the teaching and learning process. In addition, teachers undertake various responsibilities in acquiring new skills and values for themselves, their students and society (General Directorate of Teacher Training and Development, 2017, pp. I-14).

In order for learners to benefit from the advantages of online learning, they must have certain technical skills and be ready for online learning (Sakal, 2017). The needs of a learner whose readiness level is identified can be determined; preparation, a plan and curriculum can be made in accordance with those needs (Harman and Çeliker, 2012). The readiness of teachers, who are both learners and teachers, plays an important role in determining future strategies, measures and interventions to advance and develop e-learning (Polat, Hopcan andYahşi, 2022).

The eTwinning platform, launched in 2005 with the initiative of the European Commission, is one of the learning platforms that offers online learning opportunities. eTwinning is a non-profit online platform where countries such as Turkey, Azerbaijan, Jordan, and countries in Europe form a large part of the participating schools and where target groups such as teachers and school administrators working in these schools can work

as members. It offers the opportunity to reach teachers and students from many countries. The eTwinning platform is defined as a community for schools in Europe. eTwinning can also be described as the most exciting learning community in Europe, where communication and cooperation come to the fore and projects are developed and shared (European Commission, 2021).

In 2022, the eTwinning platform was transferred to the European School Education Platform (ESEP). ESEP covers all levels of education from early childhood education and care to primary and secondary education, including pre-service vocational education and training (European Commission, 2022a). Teachers who are members of this platform can organize and conduct on-site and online activities in eTwinning with their colleagues and students from the countries participating in the Erasmus+ program (European Commission, 2022b).

eTwinning projects are projects that are based on the cooperation of students from different schools and different countries, and where the planned studies are carried out with student-centered activities and these activities are shared with partners in the online environment. Teachers from at least two different schools can create a project. Teachers and students cooperate by using information and communication technologies to carry out their studies, communicating over the internet. A project can be awarded with a national or European quality label. For a project to qualify for the European Quality Label, schools from at least 2 different countries must be involved in the project and work actively (YEĞİTEK, 2022b). eTwinning projects are important in terms of the eTwinning platform being technology-supported, bringing digital skills to the fore in projects, and meeting the needs and expectations of the new generation (Karataş and Özatay, 2023, p.109).

Teachers and members of the eTwinning community are called eTwinners. With the social networking features available to eTwinners, they can network, share and collaborate with other registered eTwinners and schools by networking, participating in eTwinning groups and European projects. There are also options on the eTwinning platform that support professional development such as webinars, short and long online courses (including Massive Open Online Course-MOOCs), online conferences and events, self-education materials (European Commission, 2022b).

The Digital Economy and Society Index (DESI) 2020 mentions about the global epidemic of Covid 19 and the digital transformation process that affects daily life, and emphasizes that employees in public institutions should improve their digital skills after the epidemic process (European Commission, 2022c). In such a process, according to Döğer and Kurnaz (2022, p.68), it is not known which characteristics of teachers affect technology competence in eTwinning projects. Considering that eTwinning project applications are completely based on an internet-based social network, the use of technology is decisive in the effectiveness of teachers in these projects.

It is important to measure the online readiness of teachers who are members of the eTwinning portal, which provides online education and learning. Because with the assessment of readiness for online learning, it will measure the ability of users to adapt to technological challenges, collaborative learning and training, as well as learning and training at their own pace, synchronously and asynchronously (Hashim & Tasir, 2014, p.267).
In the context of all expressions, it is thought that the level of the predisposition of teachers registered in and working on the eTwinning portal to online learning and their readiness for online education should be determined considering the Covid-19 pandemic process. Although there are studies in the literature that determine the readiness of teachers for online education, it has been understood that there is no study related to the online education readiness of eTwinner teachers in the national context. For this reason, teachers who have works on the eTwinning portal have been identified as the target audience (N=550). Numerous online

events are organized within the scope of eTwinning; international online learning activities, learning activities and webinars organized by the experts, Turkish National Support Service or provincial coordinators can be given as examples of these activities (YEĞİTEK, 2023). It can be said that an etwinner teacher is involved in these processes while running a project on the eTwinning platform. For these reasons considering that it would be easier for eTwinner teachers to adapt to the distance education process, it was tried to reach teachers working in Eskişehir and registered on the eTwinning portal.

Thus the aim of this study is to examine the readiness for online education of teachers who are members of the eTwinning project platform in Eskişehir and take part in the project processes, which present a quality label as a result, in the context of demographic and technology usage variables and to make suggestions in this direction. For this purpose, answers to the following research questions were sought.

Teachers involved in eTwinning quality processes;

1. What is the readiness level for online education?
2. Does the gender variable make a difference in online education readiness levels?
3. Does education status make a difference in online education readiness levels?
4. Does the education they receive online regarding the use of technology in education make a difference in their readiness for online education?
5. Does the length of service make a difference in the level of readiness for online education?
6. Does the duration of membership in the eTwinning portal make a difference in readiness levels for online education?

Methodology

This research was designed in the cross-sectional survey model, which is one of the quantitative research methods (Büyüköztürk, et al., 2012). The cross-sectional survey model aims to take a photo of the situation by collecting data at once to illuminate a situation, variable, or phenomenon and to reveal the relationship between the situation, variables, and variables by examining this photo. The K-12 Teachers' Online Teaching Readiness Scale was applied to reveal the teachers' readiness for online education.

Study Group

Teachers who work in Eskişehir and have project works that bring quality labels on the eTwinning platform constitute the universe of the research (N=550). Within the scope of the study, it is aimed to reach the universe, and the link of the data collection tool was sent to the relevant teachers via Google form. Within the scope of the study, data were obtained from 384 (n=384) teachers. Creswell (2013) states thatae sample number of 360 or more generalizes the universe.

Ethical Statement

Research ethics permission for this study was obtained with the decision numbered E-88074293-605-01-65577715 on 12.12.2022.

Data Collection

In the collection of data, the 'survey on the Internet' method, which is a faster, more effective, and economical method, which is seen to be increasing in popularity in the literature, was used (Arıkan, 2018). The surveys were uploaded to the online survey platform called Google Forms, and the link to access the form was shared with the teachers.

Data Collection Tools

As a data collection tool in the research, the Participant Information Form including demographic and technology usage variables and Polat, Hopcan, and Yahşi (2022) K-12 Teachers Online Teaching Readiness Scale was used. Information about the form and scale used in the research is given below.

Participant information form

In this study, Participant Information Form included gender, educational status, educational technologies education status, level of use in learning-teaching processes of online web 2.0 tools, length of service, process of participation in the eTwinning platform, number of project applications and the type of quality label received by the study group.

K-12 teachers online teaching readiness scale

Polat, Hopcan andYahşi (2022), a 5-point Likert-type scale consisting of 9 sub-factors and 52 items, validity and reliability tests were applied, and it can be applied to teachers. The confirmatory factor analysis (CFA) performed shows that the fit of the scale is in the desired range and is good. "x^2/sd= 2.476, RMSEA= 0.067, S-RMR= 0.034, GFI= 0.99, AGFI= 0.96, CFI= 0.99, NNFI= 0.98, IFI= 0.99". The Cronbach's alpha coefficient calculated for the reliability analysis was 0.83 and 0.92 for the subscales, and 0.93 for the whole scale. The results of the validity and reliability analysis of the scale show that the scale can be applied to teachers.

Data Analysis

SPSS 25.0 package program was used for the analysis of the data obtained from the data collection tools. The findings were evaluated at the 95% confidence interval and at the 5% significance level. Since the data in the study showed a normal distribution, t-test was used for variables with two sublevels in the comparison of quantitative data such as gender and educational status that affect teachers' online education readiness. After the t-test, the Cohen effect size value was calculated to calculate the size of the differentiation among the groups with a significant difference. On ANOVA was used for variables with more than two sublevels that affect teachers' online education readiness, such as length of service. In case of a difference in the ANOVA test, post-hoc tests were used to determine the pairwise differences.

The skewness and kurtosis coefficients of the scores obtained from the K-12 Teachers Online Teaching Readiness Scale were found to be between +1.5 and -1.5. According to the obtained values, it can be said that the data provides the assumption of normality (De Carlo, 1997). Table 1 shows the scores that teachers got from the online education readiness scale.

Table 1
Teachers' Scores from the Online Teaching Readiness Scale

Variables	n	Min.	Max.	Mean	Sd.	Skewness	Kurtosis
Technical Competence	384	1,52	5.00	4,2270	,72036	-,918 ,125	-,135 ,248
Educational Technology Competence	384	1,50	5.00	4,1688	,81822	-1,094 ,125	,930 ,248
Computer Self-Efficacy	384	1.00	5.00	3,8635	1,00335	-,855 ,125	,211 ,248
Management Support	384	1.00	5.00	3,4349	1,13415	-,506 ,125	-,591 ,248
Colleague	384	1.00	5.00	4,2871	,83363	-1,176 ,125	,734 ,248
Learner Readiness	384	1.00	5.00	3,3184	,94809	-,050 ,125	-,567 ,248
Contents	384	1.00	5.00	3,3026	1,04788	-,362 ,125	-,470 ,208
Relative Usefulness	384	1.00	5.00	2,8813	1,04402	-,045 ,125	-,600 ,248
Pedagogical and Ethical Competence	384	1.00	5.00	4,4342	,58560	-,908 ,125	-,037 ,248

When the scores in Table 1 are examined, the scores of the teachers differ from 9 different sub-factors: technical competence, educational technology competence, computer self-efficacy, management support, colleague, learner readiness, content, relative usefulness, and pedagogical and ethical competence.

Cronbach's Alpha value was examined to determine the reliability level of the scale used in the research. It is seen that Cronbach's Alpha internal reliability coefficient is .893 and the scale has high reliability.

Findings and Comment

In this section, the findings obtained as a result of the research are given. Explanations and comments were made based on the findings; The findings were evaluated in accordance with the sub-objectives.

Demographic Findings for the Study Group

In this section, the frequency and percentage distributions of the data collected through the participant information form are shown the in tables. Table 2 shows the distribution of the study group by gender.

Table 2
Distribution Table by Gender of the Study Group

Variables	*Groups*	*Frequency*	*Percent*
	Female	345	89,8
Gender	Male	39	10,2
	Total	384	100

As it can be seen in Table 2, when the distribution of teachers who responded to the relevant questionnaire within the scope of the study is examined by gender, it is understood that 345 of them are female and 39 of them are male and female eTwinner teachers participate more in the eTwinning learning portal than male teachers.Table 3 shows the distribution of the study group according to their educational status.

Table 3
Distribution Table of the Study Group by Educational Status

Variables	*Groups*	*Frequency*	*Percent*
	Undergraduate Education	307	79,9
Educational Status	Graduate Education	77	20,1
	Total	384	100

As can be seen in Table 3, when the distribution of teachers who responded to the relevant survey within the scope of the study is analyzed according to their educational status, it is understood that 307 of them have undergraduate education, 77 of them have graduate education and that eTwinner teachers with undergraduate degrees participate more in the eTwinning portal than teachers with graduate degrees. Table 4 shows the distribution of the study group according to their educational technology education status.

Table 4
Distribution Table of the Study Group According to the Educational Technologies Education Status

Variables	*Groups*	*Frequency*	*Percent*
	Yes	318	82,2
Education Status	No	66	17,8
	Total	384	100

As seen in Table 4, when the distribution of the teachers who responded to the survey in the scope of the study according to their educational status regarding the use of technology in education is examined, it is seen that 318 of them received the relevant training, 66 of them did not, and eTwinner teachers who received training on the use of technology in education participated in the study more than the teachers who did not. Table 5 shows the distribution table of the study group according to the level of use of online Web 2.0 tools in the learning-teaching processes.

Table 5
Distribution Table of the Study Group by Level of Use in Learning-Teaching Processes of Online Web 2.0 Tools

Variables	***Groups***	***Frequency***	***Percent***
Web 2.0 Usage Level	Low	9	2,3
	Middle	142	37,0
	High	233	60,7
	Total	384	100

As can be seen in Table 5, when the distribution of the teachers who responded to the related questionnaire in the study according to their level of use in the learning-teaching processes is examined, the low level of use of 9 of them, the medium level of 142 of them, and the high level of use of online Web 2.0 tools in the learning-teaching processes. It is understood that eTwinner teachers with high levels of use participate more in the study than teachers who use other levels.

Table 6 shows the distribution table of the study group according to the length of service.

Table 6
Distribution Table of the Study Group by Terms of Service

Variables	***Groups***	***Frequency***	***Percent***
Service Period	1-10 Years	75	19,5
	10-20 Years	200	52,1
	20 and above	109	28,4
	Total	384	100

As can be seen in Table 6, when the distribution of teachers who responded to the relevant survey within the scope of the study is examined according to their length of service, it is understood that 75 between 1-10 years, 200 between 10-20 years and 109 between 20 years and above participated in the study. According to the

variable of length of service, teachers with 10-20 years of service show the highest participation.Table 7 shows the distribution table of the study group according to the process of participation in the eTwinning platform.

Table 7
Distribution Table by Study Group's Participation in the eTwinning Platform

Variables	***Groups***	***Frequency***	***Percent***
Participation Process	Pre-Pandemic	316	82,3
	Pandemic Process and After	68	17,7
	Total	384	100

As seen in Table 7, when the distribution of the teachers who responded to the survey within the scope of the study according to the Participation Process of the eTwinning Platform is examined, it is seen that 316 were members of the platform before the pandemic and 68 were included in the system during and after the pandemic period, and the majority of eTwinner teachers were members of the relevant platform before the pandemic.

Table 8 shows the distribution table of the working group according to the number of project applications.

Table 8
Distribution Table of the Study Group by Number of Project Applications

Variables	***Groups***	***Frequency***	***Percent***
Number of Projects	1-10	325	33,9
	10-20	48	62,2
	20 and more	11	3,9
	Total	384	100

As can be seen in Table 8, when the distribution of the teachers who responded to the survey within the scope of the study according to the Number of Project Applications to the eTwinning Platform is examined, it is seen that 325 of them participated with 1-10 projects, 48 of them with 10-20 projects and 11 of them with 20 or more projects. It is understood that the majority of the teachers applied to the relevant platform with a number of 1-10 projects.Table 9 shows the distribution table according to the type of quality label received by the study group.

Table 9
Distribution Table by Type of Quality Label Received by the Study Group

Variables	*Groups*	*Frequency*	*Percent*
Quality Label	I never took	15	3,9
	National	139	33,9
	National and European	209	62,2
	Total	384	100

As can be seen in Table 9, when the distribution of the teachers who responded to the relevant questionnaire within the scope of the study is analyzed according to the Type of Quality Label They Received, it is seen that 15 of them did not receive any labels, 139 received national labels and 209 received both national and European labels. It is understood that it also has a European quality label. Based on these findings, it can be said that most of the projects of eTwinner teachers working in Eskişehir are awarded with both national and European labels.

Findings Related to the Problem Situation

In the first sub-problem of the research, it was tried to determine the readiness levels of the teachers involved in the eTwinning quality processes for online education. The numerical values of the analysis results obtained are given in Table 10.

Findings on readiness levels for online education

Table 10
Table of Readiness Levels of Teachers for Online Education

Variables	**n**	**Min.**	**Mak**	**Mean**	**Ss.**	**Skewness**	**Kurtosis**
Readiness in Online Education	384	2,35	5.00	3,9115	,56004	-,370 ,125	-,220 ,248

In Table 10, the readiness levels of teachers for online education, and the arithmetic mean and standard deviation scores of their levels are presented. The score ranges of the data obtained in the Likert scale type should be considered equal and the average score range factor should be 0.79 (Büyüköztürk, 2010). In revealing the current score range; the lowest point value (1) is subtracted from the highest point value to be obtained from the scale item, and this value is found by dividing the total value by the number of degrees, and finally the score ranges are determined (Erkuş, 2012). The evaluation intervals of the relevant scale are shown in Table 11.

Table 11
Readiness Scale Item Evaluation Intervals in Online Education

Value of Choice	Item Value Range
1 – Very Low	1,00 – 1,79
2 – Low	1,80 – 2,59
3 – Mid	2,60 – 3,39
4 - High	3,40 – 4,19
5 – Very High	4,20 – 5,00

In the context of all these statements in Table 11, it is seen that the average the teacher's readiness for online education is 3.91, at a "high" level. According to Erkuş (2012), in revealing the current score range; The lowest point value (1) is subtracted from the highest point value (5) to be obtained from the scale item, and this value is found by dividing the total value by the number of degrees, and finally the score ranges are determined. In this context, the score range obtained from the scale shows that the teachers' readiness level for online education is high.

Findings on the effect of gender variable on teachers' readiness for online education

The readiness scale for online education consists of 9 subscales: technical competence, educational technology competence, computer self-efficacy, management support, colleague, learner readiness, content, relative usefulness, and pedagogical and ethical competence. Independent samples t-test was used to analyze whether there was a difference in the context of the gender variable. In Table 12, there are findings regarding the effect of gender variable, which is the second sub-problem of the research, on teachers' online education readiness levels.

Table 12
The Effect of Gender Variable on Teachers' Readiness for Online Education

Variable	*Groups*	*Mean*	*F*	*P*	*Cohen's d*
Technical Competence	Female	4,6213	1,014	0,315	
	Male	4,6781			
Educational Technology Competence	Female	4,1585	10,513	0,001*	0,48
	Male	4,2607			
Computer Self-Efficacy	Female	3,8678	2,692	0,102	
	Male	3,8256			
Management Support	Female	3,4618	0,531	0,467	
	Male	3,1966			
Colleague	Female	4,3145	1,071	0,301	
	Male	4,0449			
Learner Readiness	Female	3,3029	8,700	0,003*	0,40
	Male	3,4551			
Contents	Female	3,2899	2,551	0,111	
	Male	3,4154			
Relative Usefulness	Female	2,8446	3,910	0,049*	0,29
	Male	3,2051			
Pedagogical and Ethical Competence	Female	4,4754	5,004	0,026*	0,32
	Male	4,0705			

When the values in Table 12 are examined; Educational Technology Competence (P=.001<.05), Learner Readiness (P=.003<.05), Relative Usefulness (P=0.049<.05), and Pedagogical and Ethical Competence of eTwinner teachers working in Eskişehir for online education. It is seen that the factors (P=,026<,05) differ significantly in terms of gender variables. When Cohen's d values of the said difference are examined, it is seen that the relevant values for the sub-dimensions with significant differences between them are in the range of 0.29 - 0.48 and have a medium effect size. It is understood that men have higher proficiency than women in educational technology competency, learner readiness, and relative usefulness factors. In terms of pedagogical and ethical competence, it is seen that female teachers have higher competence than male teachers. According to Polat, Hopcan, and Yahşi (2022), educational technology proficiency includes items such as online collaboration and using online exam/quiz tools, and these items (items 12 and 15) are considered important in terms of readiness for online education. In the learner readiness factor (items 33 and 34), both high interest in online learning and time management are expressed as the most important items. In the relative usefulness factor consisting of 5 items (items 42 and 43), it was shown that the readiness of teachers who thought that online education was efficient and effective was high. Within the scope of the pedagogical and ethical competence factor consisting of 8 items, it was seen that the ability to communicate online with colleagues is important in terms of readiness (item 50).

Findings on the effect of educational status variable on teachers' readiness for online education

The differentiation status of eTwinner teachers working in Eskişehir for online education according to their educational status was analyzed with independent samples t-test analysis. In Table 13, there are findings regarding the effect of the third sub-problem of the research, the variable of educational status, on the teachers' readiness for online education.

Table 13
The Effect of Educational Status Variable on Teachers' Readiness for Online Education

Variable	*Groups*	*Mean*	*F*	*P*	*Cohen's d*
Technical Competence	Undergraduate	4,5816	24,739	0,000*	0,41
	Graduate	4,8081			
Educational Technology Competence	Undergraduate	4,1384	0,704	0,402	
	Graduate	4,29			
Computer Self-Efficacy	Undergraduate	3,8638	1,443	0,230	
	Graduate	3,8623			
Management Support	Undergraduate	3,4387	0,086	0,769	
	Graduate	3,4199			
Colleague	Undergraduate	4,2801	0,085	0,770	
	Graduate	4,3149			
Learner Readiness	Undergraduate	3,2997	0,158	0,691	
	Graduate	3,3929			
Contents	Undergraduate	3,2541	2,715	0,100	
	Graduate	3,4961			
Relative Usefulness	Undergraduate	2,828	1,081	0,299	
	Graduate	3,0935			
Pedagogical and Ethical Competence	Undergraduate	4,4222	5,452	0,020*	0,35
	Graduate	4,4821			

When the values in Table 13 are examined; It is seen that eTwinner teachers' readiness for online education in Eskişehir differs significantly in terms of educational status variable in Technical Competence (P=.000<.05) and Pedagogical and Ethical Competence (P=.020<.05) factors according to their educational status variable. Cohen's d values of the said difference were examined. It is seen that the relevant values for the sub-dimensions with significant differences between them are in the range of 0.35 - 0.41 and have a medium effect size. It is understood that teachers with postgraduate degrees in technical competence and pedagogical and ethical competence have higher proficiency than those with undergraduate degrees. According to Polat, Hopcan and Yahşi (2022), technical competence generally includes items related to computer and internet usage skills (items 3, 5, 6, and 7). It has been stated that computer and internet usage skills are important in terms of teachers' readiness for online education.

Findings on the effect of education on the use of technology in education by teachers on the level of readiness for online education

The differentiation of eTwinner teachers' readiness for online education, working in Eskişehir, according to their educational status on technology use was analyzed with independent samples t-test analysis. In Table 14, there are findings regarding the effect of the variable of educational status on the use of technology, which is the fourth sub-problem of the research, on the teachers' readiness for online education.

Table 14
The Effect of Education on the Use of Technology in Education on Teachers' Readiness for Online Education

Variable	*Groups*	*Mean*	*t*	*P*	*Cohen's d*
Technical Competence	Evet	4,6897	5,368	0,004*	0,41
	Hayır	4,3249			
Educational Technology Competence	Evet	4,2631	4,294	0,265	
	Hayır	3,7146			
Computer Self-Efficacy	Evet	3,9591	5,116	0,701	
	Hayır	3,4030			
Management Support	Evet	3,4712	4,531	0,030*	0,37
	Hayır	3,2601			
Colleague	Evet	4,3491	4,185	0,014*	0,56
	Hayır	3,9886			
Learner Readiness	Evet	3,4285	4,218	0,003*	0,42
	Hayır	2,7879			
Contents	Evet	3,3484	1,377	0,671	
	Hayır	3,0818			
Relative Usefulness	Evet	2,9384	1,503	0,204	
	Hayır	2,6061			
Pedagogical and Ethical Competence	Evet	4,5031	3,236	0,000*	0,45
	Hayır	4,1023			

When the values in Table 14 are examined; Technical Competence (P=,004<,05), Management Support (P=,030<,05), Colleague (P=,014<,05) according to the readiness of eTwinner teachers in Eskişehir for online education, according to their education on educational technologies, Learner Readiness (P=.003<.05) and Pedagogical and Ethical Competence (P=.000<.05) sub-factors are seen to differ significantly in terms of technology education status variable. Cohen's d values of the said difference were examined. It is seen that the relevant values for the sub-dimensions with significant differences between them are in the range of 0.41 - 0.56 and have a medium effect size. In the context of the relevant sub-factors with a significant difference, it is seen that the readiness level of all teachers who received training on the use of technology in education is higher than the others.

Findings on the effect of the length of service variable on teachers' readiness for online education

The differentiation of eTwinner teachers' readiness for online education according to their length of service in Eskişehir was carried out with a one-way ANOVA analysis. Post-hoc tests after the homogeneity of variance test were used to determine the groups with a significant difference after the ANOVA Analysis. In Table 15, there are findings regarding the effect of the fourth sub-problem of the research, the variable of the length of service, on the teachers' readiness for online education.

Table 15
ANOVA Table on the Effect of Length of Service on Teachers' Readiness for Online Education

Variables	*Groups*	*Mean*	*F*	*P*	*Diffirence*
Service Year	1-10 year	4,0790	11,429	,000*	2-1
	10-20 year	3,7850			2-3
	20 and above	4,0284			

As seen in Table 15, as a result of the ANOVA analysis, it is seen that the eTwinner teachers' readiness for online education differs according to their length of service. Post-Hoc tests are used to determine between which groups the differentiation occurs. Since the variances were homogeneously distributed (P=.146>.05), the Hochberg GT2 test was performed because the sample distribution was not equal.

According to the Post-Hoc analysis results in Table 15, it is seen that teachers with 10-20 years of service differ from other groups. It is seen that the average of readiness for online education (3.78) of teachers with a service period of 10-20 years is lower than the other groups. In this context, it is understood that teachers with 10-20 years of service are the group with the lowest readiness level for online education.

Findings on the effect of teachers' etwinning portal membership period on online education readiness levels

The differentiation status of eTwinner teachers' readiness for online education in Eskişehir according to the periods when they were members of the eTwinning portal (before or after the pandemic) was carried out by independent samples t-test analysis. In Table 17, there are findings regarding the effect of the sixth sub-problem of the research, the periods when teachers are members of the eTwinning portal, on their readiness for online education.

Table 17
The Effect of Teachers' Periods of Membership in the eTwinning portal on Readiness for Online Education

Variable	*Groups*	*Mean*	*t*	*P*	*Cohen's d*
Technical Competence	Pre-Pandemic	4,5999	2,217	0,002*	0,45
	Pandemic Process or After	4,7533			
Educational Technology Competence	Pre-Pandemic	4,1129	2,918	0,010*	0,36
	Pandemic Process or After	4,4289			
Computer Self-Efficacy	Pre-Pandemic	3,8323	1,318	0,001*	0,48
	Pandemic Process or After	4,0088			
Management Support	Pre-Pandemic	3,3924	1,586	0,335	
	Pandemic Process or After	3,6324			
Colleague	Pre-Pandemic	4,2785	0,437	0,983	
	Pandemic Process or After	4,3272			
Learner Readiness	Pre-Pandemic	3,3916	3,306	0,002*	0,42
	Pandemic Process or After	2,9779			
Contents	Pre-Pandemic	3,3114	0,354	0,468	
	Pandemic Process or After	3,2618			
Relative Usefulness	Pre-Pandemic	2,9006	0,784	0,459	
	Pandemic Process or After	2,7912			
Pedagogical and Ethical Competence	Pre-Pandemic	4,4225	0,849	0,159	
	Pandemic Process or After	4,4890			

When the values in Table 17 are examined; The readiness of eTwinner teachers in Eskişehir for online education is Technical Competence (P=.002<.05), Educational Technology Proficiency (P=.010<.05), Computer Self-Efficacy (P=.001<, 05), Learner Readiness (P=,002<,05) sub-factors differ significantly in terms of technology education status variable. Cohen's d values of the said difference were examined. It is seen that the relevant values for the sub-dimensions with significant differences between them are in the range of 0.36 - 0.48 and have a medium effect size. In the context of the relevant sub-factors with a significant difference, it is understood that the level of readiness in online education of the teachers who were included in the system during and after the pandemic process from the time they became a member of the eTwinning portal is higher than the teachers who were included in the system before the pandemic. According to Polat, Hopcan, and Yahşi (2022), computer self-efficacy consists of five items and it has been stated that providing technical support, allocating sufficient time, and giving practical training are especially important in terms of readiness within the scope of items 17, 18 and 19.

Conclusion

Undoubtedly, teachers have the biggest task in the studies to be carried out to use technology in education and to improve, support, and accelerate learning in this way. The learning-teaching process will become meaningful with teachers' ability to bring technology to the classroom environment, support them in this regard, and their online readiness (Şimşek & Fiş Erimut, 2022). In addition, according to Sakal (2017, p.83), every institution that will engage in distance education should definitely focus on the readiness of the trainers, even if their infrastructure is ready. The eTwinning portal, which is an online platform that offers distance education, can also be described as a platform that contributes to the learning of teachers and students using technology.

According to the first findings obtained from the scale applied in line with the purpose of the research, the scores of the teachers from 9 different sub-factors such as technical competence and educational technology competence differed. In this study, when the distribution of eTwinner teachers by gender is examined, it is understood that female teachers participate more in the eTwinning learning portal than male teachers. A similar result was reached in the studies of Döğer and Kurnaz (2022), and it was suggested that male teachers could be encouraged to do projects more in eTwinning projects.

When the distribution of teachers according to their educational status is examined, it is understood that undergraduate eTwinner teachers participate more in the study than graduate teachers. When the distribution of teachers regarding the use of technology in education is examined, it is seen that eTwinner teachers who receive training on technology use in education participate more in the study than teachers who do not. It was also emphasized by Bozdağ (2017), Memişoğlu and Broutin (2018) that the projects within the scope of the eTwinning platform are an important tool in the use of technology in education. Acar (2021) also stated that teachers' eTwinning activity contributed to their professional development, and they improved themselves especially in the use of technology.

When the distribution of eTwinner teachers' use of online Web 2.0 tools in learning-teaching processes is examined, it is seen that 9 of them use low, 142 of them medium use, 233 of them use high level, and eTwinner teachers who use online Web 2.0 tools in learning-teaching processes have a high level of use. It is understood that the teachers participated in the study more than the teachers. In the study of Karataş and Özatay (2023), it was stated that participating in eTwinning projects that require the use of the internet contributes to teachers using Web 2.0 tools and learning alternative teaching methods and techniques. Gençtürk Erdem, Başak Başar, Toktay, Yayğaz and Küçük Süleymanoğlu (2021) also concluded that teachers with a high perception of technology competence use web 2.0 tools with their eTwinning studies.

When the distribution of teachers according to their length of service is examined, the teachers with 10-20 years of service show the highest participation. In addition, it is understood that teachers with 1-10 years of service participate less in the study than teachers with other service periods. In Avcı's (2020) study in which teachers' views on the eTwinning platform were determined, the finding that the majority of the teachers participating in the study had a professional experience of 10 years or more was included. Based on this finding, the teachers' participation in the study was interpreted as they wanted to continue their professional development, even though it had been a long time since their graduation.

When the distribution of eTwinner teachers working in Eskişehir according to the participation process in the eTwinning platform is examined, it is seen that the majority of teachers were members of the relevant platform before the pandemic and the majority of them applied to the relevant platform with the number of 1-10 projects. In this context, it can be said that eTwinner teachers used the online learning platform before the pandemic and were inclined to online education.

When the distribution of eTwinner teachers according to the type of quality label is examined, it is understood that the majority of them have both national and European quality labels. In the quality label evaluation criteria of the projects on the eTwinning platform, e-security-related practices such as sharing accurate and reliable information among schools by taking cyber security measures under the title of technology use are taken into account (National Support Service, 2022; YEĞİTEK, 2022a). The quality label requires collaborative work to be provided with online applications and shared work online by taking the necessary security measures. In the study of Gençtürk, Başar, Toktay, Yayğaz, and Küçüksüleymanoğlu (2021), in line with the interviews they conducted with the teachers who received the quality label, they found that the teachers had a high level of cyber security awareness, that they transferred the knowledge to classroom applications with Web 2.0 tools, and that they benefited from the knowledge and practices of other schools at a high level. they have stated.

It has been understood that the average readiness level of the teachers involved in the eTwinning quality processes for online education is at a "high" level with an average of 3.91. It can be interpreted that teachers' high readiness for online education means that they better understand their personal characteristics, abilities and resources. Baran and Özen (2020) also stated this in their study and emphasized that this is necessary for a high-quality online learning process.

It is understood that male eTwinners have higher proficiency than females in educational technology competence, learner readiness and relative usefulness factors. In the studies of Polat, Hopcan, and Yahşi (2022, p.225-226), in the technical competence factor; a significant difference was found in favor of women in terms of colleague, content, pedagogical (professional) and ethical competence factors. In this study, although there was no difference in terms of gender variable in technical competence, colleague, content factors, it was understood that eTwinner female teachers had higher proficiency in pedagogical and ethical competence than male teachers. The only common result in both studies can be interpreted that female teachers have higher pedagogical and ethical competence than male teachers. Pedagogical (professional) and ethical competence includes skills such as being able to communicate with colleagues online, taking into account the copyrights of materials used in online education (Polat, Hopcan & Yahşi, 2022). As a platform where teachers from different countries can communicate with their colleagues and share their experiences, the eTwinning portal can be interpreted as a platform where especially female teachers exhibit the skills specified in the pedagogical and ethical competence factors. In the research of Döğer and Kurnaz (2022), it was concluded that female teachers with quality labels use technology better in their eTwinning projects. Despite the studies stating that female teachers are better than male teachers in terms of technology proficiency, there is a situation in favor of male teachers in this study and in the study of Polat, Hopcan and Yahşi (2022). Different variables such as the number of teachers participating in the study, educational status, and the region they work may have affected the emergence of this situation.

It has been observed that eTwinner teachers' readiness for online education in Eskişehir differs significantly in terms of educational status variable in terms of technical competence and pedagogical and ethical competence factors according to the variable of educational status. Teachers with postgraduate degrees in technical competence and pedagogical and ethical competence seem to have higher proficiency than those with undergraduate degrees. Teachers involved in the graduate education process may have used technological applications in their academic studies. As Ziphorah (2014) emphasized in his study, if teachers are well-equipped with technology knowledge and skills, they will be able to use existing technological tools.

Also, it has been observed that the readiness of eTwinner teachers in Eskişehir for online education differs significantly in terms of the sub-factors of technical competence, management support, colleague, learner

readiness, and pedagogical and ethical competence according to their educational technology education status. In the context of the relevant sub-factors with a significant difference, it is seen that the readiness level of all teachers who received training on the use of technology in education is higher than the others. When the changing roles of the teacher in the context of the 21st century are examined, it is stated in the literature that the teacher has roles such as using technology effectively, using information and communication technologies as a learning tool, and managing change (Ünsal, 2021). The results of this study also examine these roles of teachers from an angle and reveal that teachers who develop these skills have higher readiness levels in online education. Döğer and Kurnaz (2022) also found that teachers with more project experience use technology better in their eTwinning projects. Gençtürk Erdem, Başak Başar, Toktay, Yayğaz and Küçük Süleymanoğlu's (2021) work titled "Contribution of eTwinning projects to teachers' digital literacy skills suggests that it is important for teachers to obtain correct information online, to work in accordance with eTwinning project criteria and to use digital applications in order to improve their digital literacy skills.

In this study, it has also been concluded that the readiness of eTwinner teachers working in Eskişehir for online education differs in their length of service. It has been observed that the average of readiness for online education of teachers with a service period of 10-20 years is lower than the other groups, so it can be said that these teachers have the lowest level of readiness for online education. The group with the highest readiness for online education is eTwinner teachers with a service period of 1-10 years. A similar conclusion was reached in the studies of Polat, Hopcan, and Yahşi (2022, p.226) and it was stated that young teachers are more ready to teach online.

This study is limited to eTwinner teachers working in Eskişehir. A similar study can be carried out with all teachers in Turkey or with teachers and students working in different countries. In this study, it is seen that teachers with 10-20 years of service have the lowest level of readiness for online education. It is recommended to organize in-service training for teachers with the specified service period. In addition, school-based or online in-service training can be offered to teachers, including the use of Web 2.0 tools, interactive script writing, and gamification within the scope of online education. Experimental research can also be conducted with teachers whose online readiness is determined.

Since it is important for eTwinner teachers to have a high level of online learning readiness for qualified projects and successful online education applications, studies should be conducted to improve teachers' online readiness. The high readiness of teachers for online education also affects many factors such as the use of technology, computer self-efficacy, colleagues, and student readiness. Every variable that affects the quality of online education will also affect learners, so by measuring teachers' online education readiness, studies related to many variables such as the online education process and learners' success in this process can be done. In eTwinning projects, detailed studies can be carried out in which the criteria considered in the quality label evaluation process and the online training readiness of teachers are associated with each criterion.

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Genişletilmiş Özet

Amaç

Bu araştırmanın amacı eTwinning platformunda üyeliği bulunan ve sonucunda bir kalite etiketi sunan proje süreçlerinde görev alan öğretmenlerin çevrimiçi eğitime hazırbulunuşluklarını demografik ve teknoloji kullanımına ilişkin değişkenler bağlamında incelemek ve bu doğrultuda öneriler geliştirmektir. Bu amaç doğrultusunda Eskişehir'de eTwinning kalite süreçlerinde görev alan öğretmenlerin çevrimiçi eğitime hazırbulunuşluk düzeyleri belirlenmiştir. Öğretmenlerin cinsiyet, öğrenim durumu, eğitimde teknoloji kullanımı ile ilgili çevrimiçi ortamlarda alınan eğitim, Web 2.0 araçlarının öğrenme-öğretme süreçlerinde kullanım düzeyi, hizmet süresi ve eTwinning portalına üyelik süresi gibi değişkenlerin çevrimiçi eğitime hazırbulunuşluk düzeylerine etkisine bakılmıştır.

Tasarım ve Yöntem

Nicel araştırma yönteminin kesitsel tarama modeli temel alınarak gerçekleştirilen bu araştırma, 2022-2023 eğitim-öğretim yılında Eskişehir'de görev yapan ve eTwinning portalında kayıtlı 384 öğretmen ile gerçekleştirilmiştir. Öğretmenlerin çevrimiçi eğitime ilişkin hazırbulunuşluklarını ortaya çıkarmak ve çevrimiçi eğitime hazırbulunuşluklarını farklı değişkenler bağlamında incelemek amacıyla, Polat, Hopcan ve Yahşi (2022) tarafından geliştirilen ve 9 alt faktör ile 52 maddeden oluşan K-12 Öğretmenleri Çevrimiçi Eğitim Hazır Bulunuşluk Ölçeği ile araştırmacılar tarafından hazırlanan Katılımcı Bilgi Formu internet ortamında anket yöntemi kullanılarak Google form adlı online anket platformu ile uygulanmıştır.

Formdan elde edilen verilerin analizi için SPSS 25.0 paket programından yararlanılmıştır. Demografik sorularla desteklenen verilerin analizinde cinsiyet, öğrenim durumu, öğretmenlerin eğitimde teknoloji kullanımı üzerine aldıkları eğitim gibi iki alt düzeyi olan değişkenler için t-testi kullanılmıştır. Belirtilen değişkenler için gerçekleştirilen t testi analizi sonucunda anlamlı fark bulunan gruplar için de farklılaşmanın boyutunu belirleyebilmek adına Cohen etki büyüklüğü değerleri hesaplanmıştır. Hizmet süresi gibi ikiden fazla

alt düzeyi olan değişkenler için tek yönlü ANOVA'dan yararlanılmıştır. ANOVA testinde fark çıkması durumunda ikili farkların saptanmasında Post-Hoc testlerinden faydalanılmıştır. Araştırmada kullanılan ölçeğin güvenirlik düzeyini belirlemek için Cronbach's Alpha değeri incelenmiştir. Cronbach's Alpha iç güvenirlik kat sayısının ,893 olduğu ve ölçeğin yüksek güvenirliğe sahip olduğu görülmüştür.

Bulgular

Araştırmanın sonucunda; Eskişehir'de görev yapan eTwinner öğretmenlerin eTwinning platformuna pandemi öncesi üye olduğu, kadın öğretmenlerin erkeklere göre, lisans mezunu öğretmenlerin lisansüstü mezunlara göre, eğitimde teknoloji kullanımına yönelik eğitim alan öğretmenlerin eğitim almayanlara göre, Web 2.0 araçlarının öğrenme-öğretme süreçlerinde kullanım düzeyi yüksek olan öğretmenlerin diğer düzeyde kullanım gösterenlere göre ve 10-20 yıl arası hizmet süresine sahip öğretmenlerin çalışmaya daha fazla katılım sağladığı görülmüştür. eTwinner öğretmenlerin büyük çoğunluğunun ilgili platforma 1-10 proje sayısı ile başvuru yaptığı, ulusal ve uluslararası kalite etiketi sahibi olduğu anlaşılmıştır.

Araştırmaya katılan öğretmenlerin çevrimiçi eğitime hazırbulunuşluk düzeyi ortalamaları yüksek düzeydedir. Çevrimiçi eğitime hazırbulunuşluğu en yüksek grup ise 1-10 yıl arası hizmet süresine sahip öğretmenlerdir. Eğitim teknolojileri yeterliğinde, öğrenen hazırbulunuşluğu ve göreli yararlılık faktörlerinde erkek öğretmenlerin kadınlardan; kadın öğretmenlerin ise pedagojik ve etik yeterlilikte erkeklere göre yüksek yeterliliğe sahip olduğu, teknik yeterlikte ve pedagojik ve etik yeterlilikte lisansüstü mezun öğretmenlerin lisans mezunu olanlardan daha yüksek yeterliliğe sahip olduğu araştırmada dikkat çeken bir başka sonuçtur. eTwinner öğretmenlerin çevrimiçi eğitime hazırbulunuşluklarının eğitim teknolojileri üzerine eğitim alma durumlarına göre teknik yeterlik, yönetim desteği, mesleki işbirliği, öğrenen hazırbulunuşluğu ve pedagojik ve etik yeterlik alt faktörlerinde hazırbulunuşluk düzeyinin diğerlerine göre daha yüksek olduğu da anlaşılmıştır.

Sınırlılıklar

Bu çalışma Eskişehir'de görev yapan eTwinner öğretmenlerle sınırlıdır. Ayrıca örneklem grubundan alınan verilerde eTwinner öğretmenlerin çevrimiçi eğitime hazırbulunuşlukları araştırma kapsamında kullanılan ölçek maddelerinden elde edilen yanıtlar kapsamıyla sınırlı olup, örneklemden elde edilen verilerin gerçek ve samimi yanıtlar olduğu varsayılmaktadır.

Öneriler

Benzer bir çalışma Türkiye'deki tüm öğretmenlerle ya da farklı ülkelerde görev yapan öğretmenlerle ve öğrencilerle gerçekleştirilebilir. eTwinning platformunda üyeliği bulunan ve sonucunda bir kalite etiketi sunan proje süreçlerinde görev alan öğretmenlerle sınırlandırılan bu çalışma Eskişehir'de eTwinning platformu dışında çalışmalar yapan öğretmenler hedef kitle seçilerek ve bir eğitim kademesi belirtilerek de geliştirilebilir.

Bu çalışmada 10-20 yıl hizmet süresine sahip öğretmenlerin çevrimiçi eğitime hazırbulunuşluk seviyeleri en düşük grup oldukları görülmektedir. Belirtilen hizmet süresine sahip öğretmenlere yönelik olarak hizmetiçi eğitimler düzenlenmesi önerilmektedir. Ayrıca öğretmenlere Web 2.0 araçlarının kullanımı, çevrimiçi eğitim kapsamında etkileşimli senaryo yazımı, oyunlaştırma gibi farklı etkinlikleri de içerecek şekilde okul temelli ya da çevrimiçi hizmetiçi eğitimler sunulabilir. Çevrimiçi hazırbulunuşluğu belirlenen öğretmenlerle deneysel araştırmalar da gerçekleştirilebilir.

eTwinner öğretmenlerin nitelikli projeler yapabilmeleri, çevrimiçi eğitim uygulamalarının başarılı olabilmesi için çevrimiçi öğrenme hazırbulunuşluklarının yüksek olması önemli olduğundan öğretmenlerin çevrimiçi hazırbulunuşluklarını geliştirecek çalışmalar da yapılabilir. Öğretmenlerin çevrimiçi eğitime hazırbulunuşluklarının yüksek olması teknoloji kullanımı, bilgisayar özyeterliliği, mesleki işbirliği, öğrenci

hazırbulunuşluğu gibi birçok faktörü de etkilemektedir. Çevrimiçi eğitimin kalitesini etkileyen her değişken öğrenenleri de etkileyecektir, dolayısıyla öğretmenlerin çevrimiçi eğitim hazırbulunuşluğu ölçülerek, çevrimiçi eğitim süreci, öğrenenlerin bu süreçteki başarıları gibi pek çok değişkenle ilişkili çalışmalar yapılabilir.

Özgün Değer

eTwinning portalı son yıllarda Türkiye'de çok sayıda öğretmenin üye olduğu çevrimiçi bir öğrenme portalı olarak tanımlanabilir. Bu araştırmada eTwinning portalında kayıtlı ve bu portalda çalışmaları olan öğretmenlerin çevrimiçi öğrenmeye ne düzeyde yatkın oldukları ve Covid-19 pandemi süreci dikkate alınarak öğretmenlerin çevrimiçi eğitime hazırbulunuşluk düzeyleri belirlenmiştir. Ulusal ve uluslararası alanyazında öğretmenlerin çevrimiçi eğitime hazırbulunuşluklarının belirlendiği çalışmalara rastlanmakla birlikte ulusal alanyazında eTwinner öğretmenlerin çevrimiçi eğitim hazırbulunuşlukları ile ilişkili herhangi bir çalışmanın bulunmadığı anlaşılmıştır.

Araştırmacı Katkısı: Emin ÖZEN (%50), Funda ÇIRAY ÖZKARA (%50).