Training of future primary teachers for innovation in the context of the updated content of education

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Abstract

In this information age, it is seen that the limitation of education and training, with space and time have started to be discussed and alternative methods and approaches have been suggested for students. The general purpose of this study is to plan the training of future primary school teachers in e-learning environments within the current education. 380 volunteer primary school teachers who continue to teach in Kazakhstan participated in the research in the spring term of 2020-2021. Scanning method was used in the research. General opinion measurement tool for e-learning, which was developed by the researchers was used. The collected data were analyzed using a spss program. One Way Anova and T-test were applied to analyze the data obtained from the e-learning measurement tool. According to the results of the research, primary school teachers had high e-learning levels. There was no difference in e-learning levels according to their professional seniority.

Keywords: Primary School ,Teacher, E-Learning, Distance Education,Training

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1. Introduction

It is seen that technology has become a trend that is developing day by day and leaves its place with a new one, besides, it is seen that the dizzying developments in technology raise the boundaries of education and learning, and an education approach that can go beyond the educational places and classrooms (Capuyan et al. 2021). In today's world, where learning-within-education is increasing rapidly, concepts such as education, teaching, learning, teacher and student have begun to be questioned and new names have been introduced to these concepts (Khajayeva et al., 2021). Today, which is called the information age, it is seen that the limitation of education and training with space and time has started to be discussed and alternative methods and approaches have been discussed for students (Mafugu, 2021). As a result of these developments, firstly the concept of distance education and e-learning, and later on, the concepts of internet assisted teaching, virtual education, online education, web-based learning, lifelong education, unlimited education, self-learning and electronic learning (e-learning) have been developed (Uzunboylu et al., 2020). With the development of e-learning technologies in education, it is seen that information can be learned and shared more quickly, learning can be done by making it enjoyable, and unlimited, indefinite and anytime, anywhere-learning environments are created (Gokbulut, 2020). The definition of the concept of e-learning differs everywhere. When the literature is examined, it is seen that scientists make various definitions for the concept of e-learning (Supriyatno et al., 2020). E-learning is an innovative approach that offers well-designed, student-centered, interactive and facilitative learning environments by making use of different digital technology features and materials, as well as learning materials suitable for open and on-site learning environments, without the limitations of time and space.

According to another definition, electronic learning, or simply e-learning, is a personal development system in which teaching content or learning experiences are distributed through electronic technologies, primarily computers and computer networks (Aboagye et al., 2020). In a different definition, he stated that e-learning is the presentation of course content through electronic media such as the internet, intranet, and cloud technology (Pascu et al., 2018). In larger searches, e-learning, information and communication technologies help, and the execution of teaching activities in learning environments by providing access to information and interacting with multimedia applications regardless of time and place thanks to virtual and wide area networks such as internet/intranet (Choudhury et al. 2020). In the light of all these definitions, e-learning; It can be carried out synchronously (simultaneously) or asynchronously (differently in time) by using technological opportunities without being tied to any time and place, where mutual interaction, communication and re-learning takes place all the time, giving the individual the opportunity to progress according to his own learning pace, offering instant feedback, It can be defined as an interactive learning-teaching process that includes learning methods, saves on education costs, and supports lifelong learning by providing equal opportunities in education (Yakubu et al., 2018).

Today, in the 21st century, traditional learning methods are thought to be quite simple in the education and learning processes of students. In the literature, it is said that educators should be able to organize educational activities well in order to respond to the interests, needs and expectations of students and to reach the goals of education. At this point, it is thought that teachers should have the knowledge, skills, experience and experience to keep traditional classrooms apart (Petkova et al., 2020). One of the methods of differentiating education and training from traditional classrooms is e-learning.

Thanks to e-learning applications or software, students can carry out their learning activities wherever and whenever they want, regardless of time and place, by carrying a whole library or a classroom environment in their pocket with their mobile phone. In this way, the individual can save time, effort, resources, etc., by accessing accurate and comprehensive information as soon as possible. it saves money (Rabiman et al., 2020). E-learning has a very different structure from the traditional classroom environment. It is thought to provide learners with many advantages over traditional teaching. The advantages of e-learning are; Making education relevant, increasing the popularity of education, making learning more interesting and attractive, enabling more participation of different segments in the learning process through visual intelligence and auditory designs, enabling the continual review of the appropriateness and accuracy of the educational material and making necessary changes, interactive Thanks to an environment, it provides information sharing by increasing communication and interaction among the trainees, using active learning techniques, giving immediate feedback to the learner, taking into account different abilities and learning styles, creating a living global learning community, etc. It is seen that it contains many features such as (Uyar et al., 2020).

Today, e-learning has become a part of politics all over the world and it is seen that it has become compulsory in order to adapt to new studies. It is thought that e-learning is becoming more and more popular in the world in learning and teaching processes and it is widely used in educational institutions (Atasoy et al., 2020). As a result of the exponential advances in the Internet and Internet technologies, e-learning has emerged by bringing a new perspective in modern education (Karaca et al., 2016). Today's learning and teaching methods are more about learning modules, photos, videos, applications, etc., rather than explaining the course content. It should initiate the rebuilding process in education by designing comprehensive learning contents and approaches that include In this respect, our teachers should also follow alternative learning-teaching approaches, keep up with the innovations and changes in the world and place contemporary approaches in their professional lives (Al-Fraihat et al., 2020).

1.1 Purpose of Research

This research was carried out in order to determine the attitudes of primary school teachers towards e-learning environments within the current education-teaching practices. In the study, answers were sought to the following questions in order to determine the effects of some variables on primary school teachers' attitudes towards e-learning:

1. What are primary school teachers' attitudes towards e-learning?

2. Primary School Teachers' attitudes towards e-learning; Is there a significant difference according to gender variables?

3. Is there a significant difference in primary school teachers' attitudes towards e-learning according to professional seniority variables?

4. Is there a significant difference in primary school teachers' attitudes towards e-learning according to the variables of educational status?

2. Methods anf Materials

In this section, the research method, study group, type and source of data, data collection tools and statistics used in the research will be discussed.

2.1 Research Model

This research is a descriptive study and was carried out using the survey model. The screening method is a research approach that aims to describe a past or present situation as it exists (Uzunboylu et al., 2021). In this research, primary school teachers' attitudes towards e-learning; were described according to the variables of gender, professional seniority, and educational status.

2.2 Working Group/Participants

The research was carried out on a voluntary basis and was carried out on 380 primary school teachers working in the schools located in the center of Kazakhstan in the 2020-2021 fall academic year and willing to participate in the research voluntarily. The measurement tool used in the research was applied to 380 primary school teachers and accepted.

2.3 Data Collection Tools

In the study, a personal information form developed by the researchers, called the "attitude scale towards e-Learning" measurement tool developed by the researchers, was used to collect the necessary information about primary school teachers. The content validity of the developed measurement tool was examined by experts working in the field of educational technology and having the title of 4 professors, and unnecessary items were removed from the measurement tool or rearranged. . 18 items of the measurement tool consisting of a total of 24 items were used and 6 items were extracted from the measurement tool thanks to expert opinion. Primary school teachers' opinions were sought from two factorial dimensions, namely "e-learning susceptibility" and "e-learning avoidance" of primary school students. The Cronbach Alpha reliability coefficient of the measurement tool as a whole was calculated as 0.91. Measuring tool; "strongly disagree" (1), "disagree" (2), "undecided" (3), "agree" (4) and "strongly agree" (5). The measurement tool was collected from primary school teachers in the form of an online environment.

2.4 Analysis of Data

Data obtained from primary school teachers' attitude measurement tool towards e-learning, using frequency (f), percentage (%), mean (M), standard deviation (SD), t-test and one-way analysis of variance (one-way ANOVA). The statistics were analyzed in the program. The data obtained from the program are given in the findings section accompanied by tables and comments.

2.5 Application

Seminars on e-learning, consisting of 5 choices, were organized for 380 primary school teachers continuing their studies in Kazakhstan. In the 4-week training period, information such as "what is e-learning", "how to prepare materials with e-learning", "how to discover e-learning environments", how to measure success with e-learning" were given in the form of seminars. After the 4-week training, the measurement tool and information form were applied to the primary school teachers and the data were given in the findings section in tables. The training is arranged over the Google Meet program, which is preferred by most primary schools, and each section is distributed over weeks to be limited to 80 people, each seminar is covered in a total of 40 minutes, 30 minutes of which are training, 10 minutes of which are questions and answers, in case of online education from primary school teachers thanks to their smart devices. They were expected to attend the lesson with video and microphone. The measurement tool applied in primary school teachers was collected by means of google form and coded in excel environment and transferred to spss program.

3. Results

In this section, the findings obtained as a result of the analysis of the data obtained in the research and various interpretations in line with these findings are given.

3.1. Participants'statistics

Gender

In this section, the distinctions of primary school teachers by gender are given in Table 1.

Table 1 : *Distribution of primary school teachers by gender*

Gender	F	%
Male	180	47.37
Female	200	52.63
Total	**380**	**100**

As seen in Table 1, it is seen that 47.37% (180 people) of the primary school teachers in the study group are male and 52.63% (200 people) are female primary school teachers. In the gender section, the findings reflect the actual gender distribution.

Professional Seniority

In this section, the professional seniority status of primary school teachers is examined and detailed information is given in Table 2.

Table 2 : *Distribution of Primary School Teachers by Professional Seniority*

Professional Seniority	F	%
less than 5 years	140	36.84
between 6-10 years	100	26.31
between 11-15 years	90	23.68
between 16-20 years	35	9.22
more than 20 years	15	3,95
Total	**380**	**100**

As can be seen in Table 2, the distribution of primary school teachers in the study group according to their professional seniority is the highest with 36.84% (140 people) less than 5 years, 26.31% (100 people) between 6-10 years, 23.68% (90 people). people) between 11-15 years, 9.22% (35 people) between 16-20 years and finally 3.95% (15 people) have more than 20 years of professional seniority, the findings in the professional seniority section reflect the true distribution.

Learning statuses

In this section, the occupational seniority status of primary school teachers is examined and detailed information is given in table 3.

Table 3: *Distribution of primary school teachers by learning status*

Learning Statuses	F	%
Educational institute	51	13.42
license	175	46.05
Master	120	31.57
Doctorate	34	9.02
Total	**380**	**100**

As can be seen in Table 3, the distribution of primary school teachers in the study group according to their educational status is the highest with 13.42 percent (151 people), education institute with 46.05% (175 people), undergraduate with 31.57% (120 people). It is seen that 9.02% (34 people) graduated from a master's degree and finally a doctorate. In the education status section, the findings reflect the actual distribution.

3.2. General Attitude Scores of Primary School Teachers for E-Learning

Table 4 : *Comparison of General Attitude Scores of Primary School Teachers toWards E-Learning*

E- General Attitude to Learning Scale	N	M	SS

E- Susceptibility to Learning	380	3.90	.421
E- Avoid learning	380	2.40	.585

When Table 4 is examined, it is seen that primary school teachers' attitude scores towards e-learning are examined. Accordingly, it is seen that the e-learning predisposition score is (*M*=3.90). Also, when Table 4 is examined, it is seen that primary school teachers have a score of staying away from e-learning (*M*=2.40). According to these values, it can be said that primary school teachers adopt this method as their propensity to e-learning is good and their avoidance is low.

3.3. Primary School Teachers' Attitude Scores Towards E-Learning by Gender

The t-test was applied to find out whether the gender variable of primary school teachers differs for e-learning.

Table 5 : *Comparison of General Attitude Scores of Primary School Teachers for E-Learning by Gender*

E- Attitude to Learning Scale	*Gender*	N	M	SS	sd	t	p
E- Susceptibility to Learning	Female	200	3.80	.433	380	-2.283	.023*
	Male	180	3.95	.403			
E- Avoid learning	Female	200	2.50	.567	380	2.263	.024*
	Male	180	2.30	.595			

According to the results of the t-test applied according to Table 5, it was concluded that the difference between the general attitude scores of primary school teachers towards e-learning in terms of gender variable in the dimension of "e-learning inclination" was significant [t(380)= -2.283, p<.05] . When the arithmetic averages in the e-learning disposition dimension are examined, it is seen that the average of male primary school teachers is (*M*=3.95), it is higher than the average of female teachers (*M*=3.80), and male primary school teachers have higher scores. Accordingly, it can be said that male primary school teachers are more prone to e-learning than female primary school teachers.

According to the gender variable, the t-test, which showed the difference in the "staying away from e-learning" dimension of the teachers' general attitude scale towards e-learning, was the last one [t(380)= 2.263, p<05]. When the arithmetic averages in the dimension of staying away from e-learning are examined, it is seen that the average of female primary school teachers (*M*=2.50) is higher than the average of male primary school teachers (*M*=2.30). According to this result, it is seen that female primary school teachers stay away from e-learning more than male primary school teachers. This value supports the success of male teachers on e-learning-learning-learning.

3.4 Primary School Teachers' General Attitude Scores Towards E-Learning According to the Variable of Professional Seniority

Anova test was applied to find out that the primary school teachers' professional seniority variable is not different for e-learning.

Table 6 : *Comparison of Primary School Teachers' General Attitude Scores Towards E-Learning According to the Variable of Professional Seniority*

E- General Attitude to Learning Scale	Variance Source	Squares Sum	sd	Squares Average	F	P
E- Susceptibility to	Intergroups	.937	6	.234		
	In-groups	57.404	374	.177	1.280	.250
	Total	58.341	380			
E- Avoid learning	Intergroups	.404	6	.124		
	In-groups	110.740	374	.345	.401	.840
	Total	111.114	380			

According to the results of the one-way analysis of variance (ANOVA) conducted for the general attitude scores of primary school teachers towards e-learning according to the variable of professional seniority, no statistically significant difference was found for the Susceptibility to E-Learning dimension [F(6-374)=1.280, p>.05]. Again, as a result of the analysis, it was concluded that there was no statistically significant difference for the dimension of staying away from e-learning [F(6-374) .401, p>.05]. Since primary school teachers with high professional seniority are counted as digital immigrants, it is thought that their high e-learning status is an advantage for primary school students.

3.4 Primary School Teachers' General Attitude Scores Towards E-Learning According to the Variable of Educational Status

Table 7: *Comparison of Primary School Teachers' General Attitude Scores towards E-Learning According to   the Learn Variable*

E- General Attitude to Learning Scale	Learning Status	n	<u>M</u>	SS
E- Susceptibility to Learning	Educational institute	51	3.75	.490
	License	175	3.87	.424
	Master	120	3.70	.414
	Doctorate	34	3.91	.222
E- Avoid learning	Educational institute	51	2.40	.713
	License	175	2.55	.603
	Master	120	2.50	.574
	Doctorate	34	2.30	.230

When Table 7 is examined, when the general attitude scores of primary school teachers towards e-learning according to the variable of educational status are examined, the highest value in the "predisposition to e-learning" dimension (M=3.91) is doctoral levels, and the highest value in the dimension of staying away from e-learning (M=2.55). It is seen that the highest score belongs to primary

school teachers with "undergraduate" education. According to this variable, it can be said that e-learning levels are higher than their educational status.

4. Discussion

In the study of Tomczyk et al. (2020), they aimed to reveal the relationship between the attitudes of future and current teachers towards e-learning and the evaluation of the new e-learning platform, and as a result, the majority of teachers and future educators concluded that their use of e-learning in education is high. According to the results of the research, if this value is taken into consideration, it has been found that the e-learning status of primary school teachers is high. Hofmeister and Pliz (2020) aimed to analyze the technology and e-learning perceptions of teachers in Poland, Italy and Germany in their work in 2020, and as a result, the online learning approach as a form of teacher education is met with great interest among VET teachers and the person They found that the perception of such an education option for their own benefit is positive. According to the results of the research, when the study was considered, this study, which was applied to 380 primary school teachers, was mentioned in the study on the perception and teaching of e-learning environments. It was concluded that they wanted to make education more efficient by applying this method on their own students. In this context, it can be said in the discussion environment of the research that the use of technology in education and e-learning will contribute to education in every field in these studies, which are applied in 2 regions where time and space are not the same.

Üstün, Karaoglan Yılmaz & Yılmaz (2020) aimed to reveal how teachers' readiness for e-learning affects their studies, and according to the results of the research, they concluded that there are statistically significant differences according to the gender variable. Finally, suggestions for future studies are presented within the scope of the research results. According to the results of the research, when this value is considered, a significant difference was found in the e-learning status of primary school teachers according to gender, and it was concluded that male primary school teachers understood and used better than female primary school teachers. According to these values, in the discussion part of the research, it can be said that the use of technology in some regions differs according to gender and age, and the brain differs in every aspect and in people, in this sense, it can be said based on the discussion notes of the research that this study should be applied in different places in a different time period.

In the study of Akbaş and Gökbulut (2020), they aimed to determine the information and communication technology skill levels of social studies teachers, and according to the results of the research, they found that there was no statistically significant relationship between their professional seniority and information communication technology competencies and sub-factors. When this value is considered according to the results of the research, no statistically significant difference was found for the E-Learning Susceptibility dimension of primary school teachers. Based on these results, in the discussion part of the research, it can be said that professional seniority in e-learning and different subjects do not differ according to professional seniority, our age is the age of information and communication, and in this context, having more professional seniority can become an advantage or a disadvantage compared to those with less professional seniority. This situation is directly proportional to educating oneself in the information age, and this situation is of great importance for students.

The studies mentioned in the discussion environment are relevant and important for the study, the value of e-learning environments and their place in the educational environment is directly proportional to the studies carried out, the more studies are done in this context, the more studies are done for the students and they will contribute to their education. In addition, it is among the expectations of the research that this study sheds light on other studies.

5. Conclusions

E-learning environments are important in every sense, as it is seen in today's technologies, this situation concerns both teachers and students, it is important for a teacher to use e-learning levels in the best way in education life. It was concluded that primary school teachers participated and continued their education life. The strongest aspect of a research is that the high number of people related to the identified problem is directly proportional to the analysis of the problem situation of the research. In addition, another result of the research is the educational status of primary school teachers, in this context, it has been concluded that there are 51 people in the Education Institute, 175 people in the Bachelor, 120 people in the Master's and 34 people in the Ph.D. The equipment level of a teacher who graduated from different places and levels may also differ from others, in this context, educational background is important for e-learning.

Considering another result of the research, the attitude scores of primary school teachers towards e-learning were examined and it was concluded that primary school teachers adopted this method with a good propensity for e-learning and a low level of avoidance. In this context, when this result is considered, the fact that the seminars held and the situation of staying away from e-learning situations in their lives also mean that the subject is well learned. Good e-learning situations also support this issue. According to another result of the study, it was concluded that the difference between the general attitude scores of primary school teachers towards e-learning in terms of gender variable in the dimension of "predisposition to e-learning" is significant. According to the results, it was concluded that male primary school teachers are more prone to e-learning than female primary school teachers, as it was said in the discussion part of the research, the concept of gender differs according to the segment and environment, it is important for the result of this variable to conduct a research on this value at another time. This result in the study does not mean that the e-learning status of female primary school teachers is bad. Considering another end of the study, it was concluded that whether there is a significant difference between the general attitude scores of primary school teachers towards e-learning according to the variable of professional seniority, and there is no statistically significant difference for the dimension of staying away from e-learning among the values. Since primary school teachers with high professional seniority are counted as digital immigrants, it is thought that their high e-learning status is an advantage for primary school students.

When the final result of the research is considered, when the general attitude scores of primary school teachers towards e-learning are examined according to the variable of educational status, the highest value in the dimension of "predisposition to e-learning" is doctoral levels, and the highest score in the dimension of staying away from e-learning is educational status It is seen that it belongs to primary school teachers who have "license". According to this variable, it can be said that e-learning levels are higher than their educational status. When all these results are taken into consideration, they should work on learning and e-learning software; It is thought that static, dynamic, synchronous or

asynchronous free e-learning applications/software services should be provided to primary school teachers, out-of-school students, parents or individuals from all segments of the society who need learning. Thus, it is thought that primary school teachers, who communicate and interact with individuals by using these applications, will benefit the society from their experiences by providing teaching services anywhere and anytime. In addition, it is thought that such studies will motivate primary school teachers even more and their attitudes towards e-learning will increase positively.

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