



Understanding Teachers' Classroom Management Anxiety: The Role of Educational Technology Usage in Classrooms

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ABSTRACT

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The aim of this study is to reveal whether there is a significant relationship between level of teachers' use of educational technologies and classroom management anxiety. The research was structured with relational survey model which is one of the survey models. The study group of the research consists of teachers working in pre-school, primary, secondary, and high schools in Amasya in the 2021-2022 academic year. The research sample consisted of 159 teachers who completed the data collection tools voluntarily. In the study, Levels of Educational Technology Usage Scale and Classroom Management Anxiety Scale were used as data collection tools. In the results of the research, it was determined that there was a significantly weak and negative relationship between the level of teachers' use of educational technologies and their classroom management concerns. It was also inferred that the use of educational technologies explained approximately 11% of the total variance of classroom management anxiety. When the levels of teachers' use of educational technologies were examined according to the variables of gender, age, and educational status, it was determined that there was a significant difference, but no significant difference was found according to the school type variable. Additionally, when the classroom management anxiety of the teachers was examined, it was seen that there was a significant difference as per the gender variable, while there was no significant difference as per the educational status, school type and age variables.

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INTRODUCTION

In parallel with the changing world, developments in technology have concluded that people should update themselves and keep up with this process. In this context, teachers, who are primarily responsible for the student, can use the educational technologies necessary for the transfer of knowledge in the education process. However, ensuring the active participation of students in the lesson, producing solutions for possible problems, etc. are necessary factors for effective classroom management. In this context, the change of educational environments and teachers' professional competencies has become mandatory (Basaran et al. 2021). In the modern age, teacher qualifications are critical for students to acquire 21st-century skills and to improve their educational environment (Erdem & Kingir, 2022). The role expected from teachers in educational environments is not only to present the information available to the students, but also to interpret the achievements gained by following the new developments with a critical perspective and to share the current and correct information with their students (Dargut & Çelik, 2014). In this direction, teachers are expected to use technological tools at a level that meets the interests and needs of students and to increase their skills in using these tools (Spratt, 2019). The effective and correct use of technology in educational environments both increases the quality of education and facilitates the learning processes of students (Ersoy & Gürgen, 2021). It is obvious that not using technology effectively and correctly can affect both the quality of education and learning processes negatively. Additionally, students who use technology very effectively expect teachers to be experts in the use of information technologies and to guide them (Revilla Munoz et al., 2017). It is thought that teachers may be concerned about their deficiencies in using technology skills by students. In this context, this study was conducted to examine the relationship between teachers' level of use of educational technologies and classroom management anxiety. It is thought that by revealing this relationship, it will contribute to intervention studies aimed at reducing teachers' classroom management anxieties, showing more effective classroom management skills, and creating a quality teaching environment. Additionally, the findings of this research are expected to contribute to the studies on reducing teachers' classroom management anxieties, improving classroom management competencies, and improving teachers' educational technology competencies. In this direction, answers to the following research questions were sought to achieve the aims of the research.

1. Is there a relationship between teachers' use of educational technologies and classroom management anxiety levels?
2. Does the level of teachers' use of educational technologies significantly predict classroom management concerns?
3. Does the relationship between the level of use of educational technologies and the level of classroom management anxiety differ according to gender?
4. Does the relationship between the level of use of educational technologies and the level of classroom management anxiety differ according to age?
5. Does the relationship between the level of using educational technologies and the level of classroom management anxiety differ according to the type of school?
6. Does the relationship between the level of use of educational technologies and the level of classroom management anxiety differ according to the level of the school from which the teachers graduated?

Teachers' Levels of Use of Educational Technologies

The emergence of the concept of educational technology and the use of technology in education has impacted our education system as well as in the education system of many countries (Arslan et al., 2022). Educational technology is defined as a tool used in education and training fields to make students' learning processes more efficient (Huang, Spector & Yang, 2019). It is critical for teachers to

use educational technologies effectively and to blend these technologies with field knowledge and to make education and training environments productive (Bayrak & Bayrak, 2021). It is expected that teachers' technological competencies to be expected to be high to use educational technologies beneficially in learning environments (Dođru et al., 2017). This is because the teacher is the person who guides the use of technology in learning environments (Şengür & Anagün, 2021).

It is possible to say that teachers should not only use technology effectively, but also actively use these technologies in the classroom environment. However, it is not easy for teachers to abandon traditional methods and use educational technologies in learning processes (Aksođan & Bulut Özek, 2020). Although there are efforts to increase teachers' use of educational technologies in our country, it is seen that the level of teachers' use of educational technologies has not reached the desired level (Dađ, 2016). It is stated that the number of teachers who do not use educational technologies in the classroom environment is high in these periods, as access to technology is easier in educational environments (Bilgiç, 2021). It has been observed that teachers have difficulties in using technology such as using distance education tools such as EBA and ZOOM, using computers, and preparing digital materials, especially in the distance education process (Basaran et al. 2021).

Adeoluwa et al. (2013) found in their study that teachers and students in secondary education institutions have low levels of educational technology use. Although primary school teachers regard their level of use of educational technologies as high according to their own statements, there are indications that various courses and seminars are needed in the integration of technology into education (Safa & Arabacıođlu, 2021). Bolat et al. (2020) stated that most of the branch teachers working in secondary schools have high technology usage levels but low educational technology usage levels. Similarly, Bozkurt and Cilavdarođlu (2011) stated in their study that teachers consider themselves competent in using technology, but they are unsuccessful in integrating technology into their lessons. The studies in the literature examined demonstrate that although teachers use technology at a high level, their level of integrating technology into the lesson and their use of educational technologies are lower (Başaran et al. 2021; Safa & Arabacıođlu, 2021; Bolat et al. 2020). Based on the related studies examined; it is predicted that teachers' effective use of educational technologies in teaching processes will increase their classroom management skills and reduce classroom management anxiety.

Classroom Management Anxiety by Teachers

Classroom management, which is expressed as one of the most difficult tasks for teachers (Jones & Jones, 1998), is defined as the whole of the activities carried out to make the classroom ready for learning by providing coordination between teacher, student, curriculum, time, place, method, content, and technology. (Saritas, 2006). In the classroom of a teacher who has effective classroom management knowledge and can apply classroom management strategies well, discipline problems are rarely seen, students' participation rate is high, and learning occurs more easily (Emmer & Stough, 2003). Similarly, it is important for teachers to use all competencies related to their field in the classroom environment to create an effective learning environment (Demirtaş, 2012). It is seen that the success of the students in the classrooms of the teachers who perform the classroom management effectively is higher (Çakmak et al., 2008). For this reason, effective classroom management skills are necessary to increase students' participation and success in the lesson.

Teachers' responsibilities, such as increasing efficiency in learning environments, planning in the classroom environment, responding to students' requests to be role models, ensuring discipline in the classroom environment, achieving success in the classroom, etc. make the classroom management anxiety levels of teachers more comprehensible (Breen & Lindsay, 2002). Teachers without a good command of their field, sufficient knowledge, and experience, and who cannot fully use the materials they have, experience anxiety (Uçak & Bindak, 2017). Additionally, teachers' lack of knowledge about classroom management, personality traits and inexperience cause them to experience anxiety (Oral, 2012).

Gezen (2021), in his study on determining the classroom management concerns of secondary school teachers, stated that the classroom management concerns of the participants were high. In the study by Sadık and Nasırcı (2019), it was stated that the classroom management anxieties of teachers working in high schools were low, while vocational course teachers working in vocational high schools had higher classroom management concerns compared with teachers working in other branches. The high level of classroom management anxiety of teachers negatively affects their performance in the classroom (Gezen, 2021). In this context, it is possible to say that classroom management is a prerequisite for teachers' quality and effective teaching, and that classroom management anxiety is a factor affecting the education process.

It has been stated that this classroom management anxiety can reduce the professional pleasure of teachers and reveals a professional burnout (Özer et al., 2016). It has been observed that teachers who use educational technologies effectively have high classroom management skills (Varank & İlhan, 2013). Similarly, Güneş and Buluç (2018) found in their study that there is a significant relationship between teachers' classroom management skills and their level of technology use. It is revealed that teachers' classroom management concerns are a remarkable issue, and this concern may be caused by the lack of educational technology usage in the education process, and this relationship needs to be revealed.

Purpose and Importance of the Study

When the literature is examined, it is revealed that classroom management anxiety is an important issue that should be emphasized. Although there are many studies on teachers' classroom management skills, the scarcity of studies on teachers' classroom management anxiety has drawn attention. The lack of studies in the literature on classroom management anxiety, which negatively affects the performance of teachers in the classroom (Mishra & Yadav, 2013), causes damage to their self-confidence, and even affects them to quit the profession (Ingersoll & Smith, 2003). This demonstrates the need for further studies. It has been stated that teachers' use of educational technologies will positively contribute to their successful display of classroom management skills and reduce classroom management concerns (Güneş & Buluç, 2018). This study aims to examine the relationship between teachers' level of use of educational technologies and classroom management anxiety on that sense.

METHOD

Research Design

This study, which reveals the relationship between teachers' levels of technology use in education and classroom management concerns, was conducted as a descriptive study in the survey model. Karasar (2002) defines the survey model as a survey model that shows whether there is a significant difference between the groups formed between more than one variable according to the dependent variable.

Participants

The group of this study consists of teachers working in Amasya Provincial Directorate of National Education. The study group consists of 161 teachers selected by appropriate sampling management from the teachers working in various schools. Two teachers with extreme values affecting the normal distribution of the data were excluded from the study group and the analysis were made on the data of 159 teachers. The distribution of the study group by gender, educational status, age and school types is summarized in Table 1.

Table 1. *Distribution of demographic characteristics*

Variable	Category	N	%
Gender	Female	103	64.8
	Male	56	35.2
Educational Status	Associate Degree	4	2.5
	Bachelor's degree	131	82.4
	Master's Degree	24	15.1
Age	23–30	18	11.3
	31–40	65	40.9
	41–50	49	30.8
	51–60	27	17.0
Type of School	Pre-school	2	1.3
	Primary school	27	17.0
	Secondary school	52	32.7
	High school	78	49.1

When the data in Table 1 are examined, it is seen that the number of female teachers in the study group is 103 (64.8%) and the number of male teachers is 56 (35.2%). 131 people (82.4%) have undergraduate degrees, 24 people (15.1%) have master's degrees and 4 (2.5%) people have associate degrees considering their educational status. 65 (40.9%) of the teachers are between the ages of 31–40, 49 (30.8%) are between the ages of 41–50, 27 (17.0%) are between the ages of 51–60, and 18 (11.3%) are between the ages 23–30. The highest level of participation was at the high school level, while the least participation was at the pre-school level when the distribution of the teachers in the study group according to the type of school, they work in is examined

Research Instruments and Processes

Data were collected using two scales within the scope of the study. The Levels of Educational Technology Usage developed by Bayraktar (2015) was used to measure teachers' level of use of educational technologies, and the Classroom Management Anxiety Scale developed by Özkul and Dönmez (2019) to measure classroom management concerns.

Ethics committee approval was obtained primarily during the collection of research data. After approval, necessary permissions were obtained to fill in the scales by the sample group. data were collected online by the researcher. The link address of the scale was sent to the schools in an official letter and the scale was filled by the teachers. The data were collected on a voluntary basis among teachers working in preschool, primary school, secondary school, and high school. The data collection process took approximately 4 weeks. The scales were applied to 161 teachers working in schools of the Provincial Directorate of National Education in Amasya.

Levels of Educational Technology Usage Scale

The Levels of Educational Technology Usage scale developed by Bayraktar (2015) is a 5-point likert ("Totally Agree" (5) - "Totally Disagree" (1)) type and consists of 38 items. The first sub-dimension "Technology Literacy" consists of 19 items, the second sub-dimension "Technology Integration in the Course" consists of 9 items, the third sub-dimension "Social Ethics and Legal Provisions" consists of 6 items, and the fourth sub-dimension "Communication" consists of 4 items. The total variance explanation rate of the scale was determined as 62.89. The Cronbach Alpha internal consistency coefficient of the scale was .975, and the Cronbach Alpha values of the sub-dimensions were .959, .912, .901, and .767, respectively.

Classroom Management Anxiety Scale

The classroom management anxiety scale, developed by Özkul and Dönmez (2019), is a 5-point likert ("Totally Agree" (5) – "Totally Disagree" (1)). Classroom management anxiety scale consists of three dimensions and 23 items. The first sub-dimension of the scale "Communication Anxiety" consists of 4 items, the second sub-dimension "Motivational Anxiety" consists of 8 items and the third sub-

dimension “Time Management Anxiety” consists of 11 items. The total variance explanation rate of the scale was determined as 65.83%. The Cronbach Alpha value of the scale was found to be .953 for the first sub-dimension, .922 for the second sub-dimension, .794 for the third sub-dimension, and .960 for the total scale.

Data Analysis

Firstly, the normality test was conducted to determine the tests to be used to analyze the opinions of the teachers within the scope of this study. The skewness and kurtosis values for all scales and their sub-dimensions are shown in Table 2.

Table 2. *Skewness and kurtosis values of scales and sub-dimensions*

Scale	Sub-Dimension	n	Skewness	Kurtosis
Levels of Educational Technology Usage	Technology Literacy	159	-.10	-.928
	Technology Integration in Class	159	-.489	-.421
	Social Ethics and Legal Provisions	159	1.126	.281
	Contact	159	-.309	-.350
	Total	159	-.227	-.418
Classroom Management Anxiety	Communication Anxiety	159	-1.124	.625
	Motivational Anxiety	159	-.910	-.126
	Time Management Anxiety	159	-.956	-.355
	Total	159	-.904	-.296

If the skewness and kurtosis values of the data are between +1.5 and -1.5 in the normality distribution test, it is stated that the data provide the normal distribution assumption (Tabachnick & Fidell, 2013). According to Table 2, it is seen that the skewness and kurtosis values of the scales and sub-dimensions are within the specified range. In this respect, our data provide the assumption that it has a normal distribution.

Multivariate analysis of variance (MANOVA) was performed to determine the differences between binary and multiple variables, as it provided the assumption of a normal distribution of the data. Correlation and multiple regression analyzes were performed to determine the relationship between the variables. In the multiple regression analysis, the effect of educational technology usage levels on classroom management anxiety was examined and educational technology usage levels were determined as the independent variable (predictor). Classroom management anxiety was determined as the dependent variable (predicted) due to the assumption that teachers could be affected by their educational technology use proficiency.

Ethic

The necessary ethics committee permissions for the research were obtained from the Social Sciences Ethics Committee of Amasya University with the decision dated 02.11.2021 and numbered 40960.

FINDINGS

Descriptive Findings

The “Level of Educational Technologies Usage” scale of teachers and the arithmetic mean and standard deviation values of the sub-dimensions is shown in Table 3.

Table 3. *Mean and standard deviation values of educational technologies usage levels scale*

	Sub-Dimensions	n	\bar{x}	sd
Levels of Educational Technology Usage	Technology Literacy	159	3.36	.99
	Technology Integration in Class	159	3.92	.77
	Social Ethics and Legal Provisions	159	4.50	.72
	Contact	159	3.50	.98
	Total	159	3.69	.75

When the results of the teachers’ use of educational technologies in Table 3 were examined, the average value of the scores obtained from the scale of the teachers’ use of educational technologies was found to be 3.69. When the results are examined according to the sub-dimensions, it is seen that the sub-

dimension of social ethics and legal provisions ($\bar{x}=4.50$, $sd=.72$) has the highest level.

The teachers' "Classroom Management Anxiety" scale and the arithmetic mean and standard deviation values of the sub-dimensions are summarized in Table 4.

Table 4. Mean and standard deviation values of the classroom management anxiety scale

	Sub-Dimensions	n	\bar{x}	sd
Classroom Management Anxiety	Communication Anxiety	159	4.04	1.09
	Motivational Anxiety	159	3.99	1.06
	Time Management Anxiety	159	3.86	1.29
	Total	159	3.93	1.11

When the results of the analysis to determine the Classroom Management Anxiety of the teachers in Table 4 were examined, the average value of the teachers' scores from the classroom management anxiety scale was found to be 3.93. When the results are examined according to the sub-dimensions, it is seen that the communication anxiety ($\bar{x}=4.04$, $sd=1.09$) sub-dimension has the highest level.

Relational Findings

Correlation analysis was conducted to determine the relationship between teachers' level of use of Educational Technologies and classroom management anxiety. Before the analysis, the results of the analysis performed to determine whether the data met the assumption of normal distribution is shown in Table 2 and it was seen that the data met the assumption of normal distribution. The correlation matrix showing the relationship between teachers' ability to use educational technologies and classroom management anxiety is given in Table 5.

Table 5. Correlation matrix showing the relationship between levels of educational technologies use and classroom management anxiety

Variables	A	A1	A2	A3	A4	B	B1	B2	B3
A. Levels of Educational Technology Usage	1								
A1. Technology Literacy	.954**	1							
A2. Technology Integration in Class	.883**	.770**	1						
A3. Social Ethics and Legal Provisions	.603**	.431**	.520**	1					
A4. Contact	.519**	.349**	.432**	.327**	1				
B. Classroom Management Anxiety	-.234**	-.293**	-.119	-.060	-.035	1			
B1. Communication Anxiety	-.193*	-.263**	-.072	.006	-.031	.853**	1		
B2. Motivational Anxiety	-.226**	-.287**	-.108	-.038	-.047	.954**	.813**	1	
B3. Time Management Anxiety	-.228**	-.275**	-.128	-.087	-.024	.971**	.744**	.873**	1

N=159; * $p<.05$; ** $p<.01$

As shown in Table 5, there is a negative, significant, and weak relationship between teachers' levels of using educational technologies and classroom management anxiety ($r=-.234$, $p<.01$). According to teachers' opinions, the levels of using educational technologies and communication anxiety ($r=-.193$, $p<.05$), motivation anxiety ($r=-.226$, $p<.01$) and time management anxiety ($r=-.228$, $p<.01$) were found to have a negative, significant, and weak relationship.

According to the teachers' views, technology literacy and communication anxiety ($r=-.263$, $p<.01$), motivation anxiety ($r=-.287$, $p<.01$), time management anxiety ($r=.275$, $p<.01$) were found to have a significant, negative, weak correlation.

Multiple regression analysis was conducted to determine to which extent teachers' use of educational technologies predicted classroom management anxiety. Before the analysis, the results of the analysis performed to determine whether the data met the assumption of normal distribution is shown in Table 2 and

it was seen that the data met the assumption of normal distribution. The results of the regression analysis are given in Table 6.

Table 6. Regression analysis results in classroom management anxiety

	B	Standard Error	β	t	p	Tol.	VIF
Constant	4.20	.579		7.25	.000		
Technology Literacy	-.557	.134	-.496	-4.162	.000	.406	2.46
Technology Integration in Class	.348	.187	.240	1.85	.065	.346	2.89
Social Ethics and Legal Provisions	.031	.139	.020	.220	.826	.715	1.39
Contact	.032	.096	.028	.333	.740	.799	1.52
R=.338 R ² =.114 Durbin-Watson=.805 F(4,154)=4.966 p=.001							

As shown in Table 6, the sub-dimensions of teachers' level of use of educational technologies predict classroom management anxiety ($r=.338$, $R^2 = .114$, $F(4, 154) = 4.966$, $p < .05$). With the relevant sub-dimensions, it was seen that they explained approximately 11% of the total variance of classroom management anxiety. It is seen that the order of importance of the predictive variables on classroom management anxiety is "Technology Literacy," "Technology Integration in Classes," "Communication" and "Social Ethics and Legal Provisions." Looking at the regression analysis, it is seen that technology literacy ($t=-4.162$, $p=.000$) has a significant and negative effect on classroom management anxiety.

Findings According to Demographic Characteristics of Teachers

The Manova test was conducted to determine whether the level of teachers' use of educational technologies and classroom management anxiety showed a significant difference according to their gender. It was seen that the Levene F test result ($p > .05$) performed before the Manova test provided the assumption of homogeneity of variances, and the Box M test (Box M =.512, $p > .05$) provided the necessary conditions for the assumption of equality of covariance matrices. The results of the Manova test are given in Table 7.

Table 7. Analysis results according to gender

Factors	Gender	N	\bar{x}	S	sd	F	η^2	P
Levels of Educational Technology Usage	Female	103	3.58	.69	1-157	5.74	.035	.018
	Male	56	4.08	.82				
Classroom Management Anxiety	Female	103	4.09	1.07	1-157	6.27	.038	.013
	Male	56	3.64	1.13				

Wilks Lambda (λ)=.008, $F(2-156)=4.95$, $p < .05$

As shown in Table 7, there is a significant difference between teachers' levels of using educational technologies according to their gender and classroom management anxiety (Wilks Lambda (λ)=.008, $F(2-156)=4.95$, $p < .05$). Because of the test, it is seen that the level of educational technology use by male teachers is higher than that of female teachers. However, it is seen that female teachers' classroom management anxiety is higher than that of male teachers.

The assumptions of the test were tested before the Manova test, which was planned to determine whether the level of teachers' use of educational technologies and classroom management anxiety differed significantly according to the level of the school they graduated from. It was seen that the necessary conditions were met for the homogeneity of variance assumption because of the Levene F test ($p > .05$), and for the assumption of equality of covariance matrices because of the Box M test (Box M =.512, $p > .05$). Since the number of associate degree graduates is low, it was tested by grouping it with undergraduate graduates. The results of the Manova test are shown in Table 8.

Table 8. Analysis results according to the graduation levels

Factors	Educational Status	N	\bar{x}	S	sd	F	η^2	P
Levels of Educational Technology Usage	Associate / Bachelors Degree	135	3.62	.761	1-157	7.81	.047	.006
	Master's Degree	24	4.08	.615				
Classroom Management Anxiety	Associate / Bachelors Degree	135	3.97	1.09	1-157	.786	.005	.377
	Master's Degree	24	3.75	1.22				

Wilks Lambda (λ)=.022, F(2-156)=3.91, $p<.05$

As shown in Table 8, there is a significant difference between the level of teachers' use of educational technologies and their classroom management anxiety levels according to the school level they graduated from (Wilks Lambda (λ)=.022, F(2-156)=3.91, $p<.05$). Because of the test, it was understood that there was a significant difference between the levels of using educational technologies among those with a master's degree and those with a bachelor's/associate degree. We observed that the educational technology usage levels of those with a master's degree were higher.

Before the Manova test, which was planned, the assumptions of the test were examined to determine whether the level of teachers' use of educational technologies and classroom management anxiety showed a significant difference according to their age. It was seen that the necessary conditions were met for the assumption of homogeneity of variances because of Levene F test ($p>.05$), and for the assumption of equality of covariance matrices because of the Box M test (Box M =.735, $p>.05$). The results of the Manova test are given in Table 9.

Table 9. Analysis results according to age

Factors	Age	N	\bar{x}	S	sd	F	η^2	P
Levels of Educational Technology Usage	23-30	18	3.85	.66	3-155	4.75	.084	.003
	31-40	65	3.84	.64				
	41-50	49	3.68	.78				
	51-60	27	3.23	.85				
Classroom Management Anxiety	23-30	18	4.10	1.09	3-155	.951	.018	.418
	31-40	65	4.04	1.03				
	41-50	49	3.71	1.20				
	51-60	27	3.97	1.15				

Wilks Lambda (λ)=.006, F(6-308)=3.10, $p<.05$

As shown in Table 9, there is a significant difference between the level of teachers' use of educational technologies according to their age and their classroom management anxiety (Wilks Lambda (λ)=.006, F(6-308)=3.10, $p<.05$). The POST Hoc Test (Tukey) test was performed to examine which groups had significant differences. It was determined that there is a significant difference between the levels of using educational technologies between teachers aged 23 -30 and teachers aged 50-60, and between teachers aged 30-40 and teachers aged 50-60 because of the test. It has been observed that the teachers aged 23-30 and 30-40 have higher educational technology use levels than teachers aged 50-60.

The assumptions of the test were tested before the Manova test, which was planned to examine whether there was a significant difference between the level of teachers' use of educational technologies and the classroom management anxiety according to the type of school they work in. It was seen that the necessary conditions were met for the assumption of homogeneity of variances because of Levene F test ($p>.05$), and for the assumption of equality of covariance matrices because of the Box M test (Box M =.761, $p>.05$). Since the number of teachers working in pre-school schools is low, it was tested by grouping together with the teachers working in the primary school. The results of the Manova test are shown in Table 10.

Table 10. Analysis results according to school types

Factors	School Type	N	\bar{x}	S	sd	F	η^2	P
Levels of Educational Technology Usage	Preschool/Primary School	29	3.72	.71	2-156	.735	.009	.481
	Secondary school	52	3.78	.74				
	High school	78	3.62	.78				
Classroom Management Anxiety	Preschool/Primary School	29	4.09	.96	2-156	.401	.005	.670
	Secondary school	52	3.86	1.19				
	High school	78	3.93	1.12				

Wilks Lambda (λ)=.684, F(4-310)=.571, p<.05

As shown in Table 10, there is no significant difference between the level of teachers' use of educational technologies and classroom management anxiety according to the type of school they work in (Wilks Lambda (λ)=.684, F(4-310)=.571, p<.05).

DISCUSSION and CONCLUSION

The results of the research demonstrated that teachers with higher educational technology use levels have higher classroom management skills and had lower classroom management concerns. Güneş and Buluç (2018) stated that the higher the level of technology use, the higher the classroom management skills will be. Varank and İlhan (2013) stated that teachers with a high perception of educational technology have higher classroom management skills. As a result, as teachers' educational technology use competencies increase, their classroom management concerns decrease.

It was concluded that educational technology use levels are a predictors of classroom management anxiety of the results of the analysis conducted to study educational technology use levels predict classroom management anxiety or not. That is, it is said that the level of educational technology use is effective in the classroom management anxiety of teachers who are one of the most crucial parts of education. Because of the analysis made according to gender in the research, it was seen that the level of using educational technologies of female teachers was lower than that of male teachers. Bolat, et al. (2020) state that male teachers' use of educational technology and the level of integration into the lesson are higher than that of female teachers. Summak et al. (2010) revealed in their study that male teachers are better at using technology than female teachers. These results agree with the results of this study. Güneş and Özerbaş (2015) state that there is no difference between the levels of female and male teachers using educational technologies and they use them equally. Çakır and Oktay (2013) found in their study that the technology use levels of female and male teachers are similar to each other. Aksoğan and Bulut Özek (2020) have defined that there is no significant difference according to gender in teacher candidates' using technology in education.

In the study, it is seen that female teachers' classroom management concerns are higher than those of male teachers. Gezen (2021) concluded that there was no significant difference between male teachers' classroom management anxiety levels and female teachers' classroom management anxiety levels. Sadık and Nasırcı (2019) state that female teachers have lower classroom management concerns than males. In this study, it is considered that classroom management concerns are high since most of the female teachers in the study group work at the high school level. Additionally, it can be said that classroom management concerns increase in connection with the low level of educational technology use.

When the study group is analyzed according to the age variable, it is seen that the teachers between the ages of 23-30 and 30-40 have higher educational technology use levels than the teachers between the ages of 50-60. It is thought that this situation is explained by the fact that young teachers start using technology at an earlier age and are more interested in technology. Horzum (2010) states that the use of technology is higher for teachers with low professional seniority. Kaya (2017) states in his study that young teachers use technology more in teaching processes. Admiral et al. (2017) stated that

as seniority increases, positive attitudes toward technology decrease. Bolat et al. (2020) stated that using the level of educational technologies of teachers with low seniority is higher than that of teachers with higher seniority. The results of this study comply with the results of our study. In contrast, studies have shown that the level of using computer and internet-based technologies does not make a significant difference according to the age variable (Durak & Seferoğlu, 2017; Ulaş & Ozan, 2010). As a result, as the age of the teachers increases, their educational technology usage level decreases.

In the study, it is seen that teachers' classroom management concerns do not differ according to the age variable. Yalçınkaya and Tonbul (2002) found that classroom management skills did not change according to seniority in their studies. Yılmaz and Aydın (2015) found that primary school teachers' classroom management skills do not differ according to age and seniority. Similarly, Güven and Cevher (2005) found that classroom management skills did not change according to the age variable. Dinçer and Akgün (2015) stated that teachers with more seniority have higher classroom management skills. As a result, it is seen that teachers do not experience classroom management anxiety as their seniority changes. Although older teachers have deficiencies in the use of educational technologies compared to that of younger ones, the reason why classroom management anxiety does not change according to their age may be thanks to their classroom management competence.

It is seen that the types of schools in which the teachers participate in the research work do not show a significant differ according to the scale of determining the level of use of educational technologies. Aktürk and Delen (2020) found in their study that primary and secondary school teachers' technology acceptance levels are higher than those of high school teachers. Ursavaş (2014) stated that primary school teachers' information technology usage skills differ compared with secondary and high school teachers.

It was found that the classroom management anxiety levels of the teachers participating in the study did not differ according to the type of school and the educational status of the teachers. Sadık and Nasırcı (2019) found that high school teachers' classroom management anxiety levels were generally low. Ozgan et al. (2010) and Bayrakçı and Sarı (2018) found in their studies that teachers' classroom management skills did not differ according to their educational status.

In the analysis conducted according to the educational status of the teachers in the research, it was concluded that the level of educational technology use by postgraduate teachers was higher than that of undergraduate and associate degree graduates. Durak and Seferoğlu (2017) stated that postgraduate teachers are more competent in using technology. Usluel et al. (2007) in his study with classroom and branch teachers stated that the use of information technologies in the learning-teaching process resulted in favor of those who received postgraduate education according to the education level of the teachers. This situation can be explained by the fact that teachers who are self-developing and open to innovation constantly improve themselves in terms of technology use competence.

RECOMMENDATIONS

Young teachers with high proficiency in technology use and senior teachers can cooperate on the use of educational technologies. It can be ensured that teachers' classroom management concerns can be reduced by making studies to improve the use of educational technologies, especially by female teachers.

Although classroom management anxiety is so important that it can affect every stage of education, there are very few studies in the literature on reducing this anxiety and finding its causes. Both quantitative and qualitative studies can be conducted in this area. Studies on this subject will help increase the efficiency of education.

REFERENCES

- Adeoluwa, O. V., Aboderin, O. S., & Omodara, O. D. (2013). An appraisal of educational technology usage in secondary schools in ondo state (Nigeria). *International Journal of Innovation and Applied Studies*, 2(3), 265-271.

- Admiral, W., Louws, M., Lockhorst, D., Paas, T., Buynsters, M., Cviko, A., Janssen, C., Jonge, M., Nouwens, S., Post, L., Ven, F., & Kester, L. (2017). Teachers in school-based technology innovations: A typology of their beliefs on teaching and technology. *Computers & Education, 114*, 57-68. <https://doi.org/10.1016/j.compedu.2017.06.013>
- Aktürk, A. O., & Delen, A. (2020). The relationship between teachers' technology acceptance levels and self-efficacy beliefs. *Science, Education, Art and Technology Journal (SEAT Journal), 4*(2), 67-80.
- Aksoğan, M., & Bulut Özek, M. (2020). The Relationship between Pre-Service Teachers' Technology Competencies and Technology Perspectives. *Gümüşhane University Journal of Social Sciences Institute, 11*(2), 301-311.
- Arslan, G. B., Kızılay, E. & Hamalosmanoğlu, M. (2022). Examining the Research in Turkey on Technology Integration in Education. *Anadolu University Journal of Education Faculty, 6* (1), 39-55. <https://doi.org/10.34056/aujef.976627>
- Başaran, M., Ülger, I. G., Demirtaş, M., Kara, E., Geyik, C., & Vural, Ö. F. (2021). Investigation of Teachers' Use of Technology in the Distance Education Process. *OPUS International Journal of Society Research, 17*(37), 4619-4645. <https://doi.org/10.26466/opus.903870>
- Bayrak, N., & Bayrak, G. (2021). The Effects of In-Service Training Courses about the Use of Technology on Teachers' Technological Pedagogical Content Knowledge Self-Confidence. *YYU Journal of Education Faculty, 18* (1), 1009-1041 <https://doi.org/10.33711/yyuefd.957385>
- Bayraktar, R. (2015). *Determination of level of teachers' educational technology usage: A study of a scale development* (Publication No. 407709) [Unpublished master's thesis]. Karadeniz Technical University.
- Bilgiç, H. G. (2021). Pre-service teachers' perceptions of educational technology: a metaphor analysis. *Educational technology theory and practice, 11* (2), 211-235. <https://doi.org/10.17943/etku.817529>
- Bolat, D., Korkmaz, Ö., & Çakır, R. (2020). Determination of The Level of Secondary School Teachers to Use Information Technologies and To Integrate Them into Their Courses. *Journal of Ahmet Keleşoğlu Education Faculty, 2*(2), 229-250.
- Bozkurt, A. & Cilavdaroğlu, A. K. (2011). Mathematics and classroom teachers' perceptions of technology use and integration into their instruction. *Kastamonu Education Journal, 19*(3), 859-870.
- Breen, R., & Lindsay, R. (2002). Different disciplines require different motivations for student success. *Research in Higher Education, 43*(6), 693-725. <https://doi.org/10.1023/A:1020940615784>
- Çakır, R., & Oktay, S. (2013). Teachers' use of technology as becoming information society. *Journal of the Faculty of Industrial Arts Education, (30)*, 35-54
- Çakmak, M., Kayabaşı, Y., & Ercan, L. (2008). Opinions of pre-service teachers on classroom management strategies. *Journal of Hacettepe University Faculty of Education, 35* (35), 53-64.
- Dağ, F. (2016). Examination of the professional development studies for the development of technological competence of teachers in Turkey in the context of lifelong learning. *Journal of Human Sciences, 13*(1), 90-111.
- Dargut, T., & Çelik, G. (2014). Pre-service turkish language teachers' attitudes and thoughts toward use of technology in education. *Journal of Mother Tongue Education, 2*(2), 28-41. <https://doi.org/10.16916/aded.04927>
- Demirtaş, H. (2012). Basics of classroom management. H. Kiran (Ed.), *Effective classroom management* (pp. 1-34). Ankara: Anı.
- Dinçer, Ç., & Akgün, E. (2015). Developing a classroom management skills inventory for preschool teachers and the correlation of preschool teachers' classroom management skills with different variables. *Education and Science, 40*(177). <http://dx.doi.org/10.15390/EB.2015.2346>
- Doğru, M., Şeren, N., & Koçulu, A. (2017). An investigation about primary school teachers' self-efficacy perception related to technology use from the point of variables. *Eurasian Journal of Social and Economic Research, 4* (12), 464-472.
- Durak, H., & Seferoğlu, S. S. (2017). An Investigation of the Factors Effective on Teachers' Technology Usage Competencies. H. F. Odabaşı, B. Akkoyunlu & A. İşman (Ed). *Educational Technology Readings 2017* (29).
- Emmer, E. T., & Stough, L. M. (2003). Classroom management: A critical part of educational psychology, with implications for teacher education. *In Educational psychologist* (pp. 103-112). Routledge.
- Erdem Y., & Kingir, S. (2022). Analysis of teachers' self-efficacy towards teaching: a review study, *Trakya Journal of Education, 12*(1), 165-175.
- Ersoy, M., & Gürgen, L. (2021). Examination of Articles Related to Educational Technologies, *E-International Journal of Educational Research, Vol: 12, No: 2, 2021*, pp. 1-16 <https://doi.org/10.19160/e-ijer.927830>
- Gezen, H. (2021, June 11-12). *Determining Secondary School Teachers' Classroom Management Anxiety Levels and Examining them in Terms of Various Variables* [Paper presentation]. Biruni University 1st International Congress on Teaching And Teacher Education, Türkiye.

- Güneş, A. M., & Buluç, B. (2018). The Relationship Between Classroom Teachers' Classroom Management Skills and Technology Use. *Necatibey Faculty of Education Electronic Journal of Science & Mathematics Education*, 12(2). <https://doi.org/10.17522/balikesirnef.506518>
- Güneş, A. M., & Özerbaş, M. A. (2015). The views of primary school teachers concerning the use of educational technologies in the initial reading and writing process. *Kastamonu Education Journal*, 23 (4), 1775-1788.
- Güven, E. D., & Cevher, N. (2005). The level of preschool teachers' classroom management skills and its relations with different variables. *Pamukkale University Journal of Education* 18 (18), 71-92.
- Horzum, M.B. (2010). Investigating teachers' Web 2.0 tools awareness, frequency and purposes of usage in terms of different variables. *International Journal of Human Sciences*, 7(1), 603-634.
- Huang, R., Spector, J. M., & Yang, J. (2019). Educational Technology: A Primer for the 21st Century. *Lecture Notes in Educational Technology*.
- Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Educational leadership*, 60(8), 30-33.
- Jones, V. F., & Jones, L. S. (1998). *Comprehensive classroom management, creating communities of support and solving problems* (5th ed.). Boston: Pearson/Allyn and Bacon.
- Karasar, N. (2002). *Scientific Research Method*, Ankara, Nobel Publications
- Kaya, B. (2017). *The relationship between attitude levels and vocational relationship on the use of technology in education in classroom teachers* (Publication No. 462333) [Unpublished Master Thesis]. Ahi Evran University.
- Mishra, S. K., & Yadav, B. (2013). Job anxiety and personality adjustment of secondary school teachers in relation of gender and types of teacher. *Educational Research International*, 1(1), 105-126.
- Oral, B. (2012). Student teachers' classroom management anxiety: A study on behavior management and teaching management. *Journal of Applied Social Psychology*, 42(12), 2901-2916. <https://doi.org/10.1111/j.1559-1816.2012.00966.x>
- Özer, B., Gelen, İ., & Duran, V. (2016). Novice teachers' behavior. *Electronic Journal of Social Sciences*, 15(58), 822-836. <https://doi.org/10.17755/esosder.20854>
- Özkul, R., & Dönmez, B. (2019). Classroom management concerns: A scale development Study. *İnönü University Journal of the Faculty of Education*, 20(3), 673-694. <https://doi.org/10.17679/inuefd.521575>
- Özgan, H., Yiğit, C., Aydın, Z., & Küllük, M. C. (2010). Analysis and comparison of primary school teachers' perceptions about classroom management. *Gaziantep University Journal of Social Sciences*, 10(1), 615-635.
- Revilla Munoz, O., Alpiste Penalba, F., Fernandez Sanchez, J., & Santos, O. C. (2017). Reducing techno-anxiety in high school teachers by improving their ICT problem-solving skills. *Behaviour & Information Technology*, 36(3), 255-268. <https://doi.org/10.1080/0144929X.2016.1221462>
- Sadık, F., & Nasırcı, H. (2019). Investigation of classroom management anxiety levels of teachers working in high schools. *Scientific Educational Studies*, 3(2), 109-131. <https://doi.org/10.31798/ses.641051>
- Safa, B. S., & Arabacıoğlu, T. (2021). Investigation of the educational technology usage levels of primary school teachers in terms of individual innovativeness characteristics. *Ondokuz Mayıs University Journal of Education*, 40(1). <https://doi.org/10.7822/omuefd.686056>
- Sarı, B., & Bayrakçı, M. (2018). Class management skills of secondary school teachers. *Bolu Abant İzzet Baysal University Journal of Faculty of Education*, 18(4), 1960-1977. <https://doi.org/10.17240/aibuefd.2018.18.41844-448649>
- Sarıtaş, M. (2006). The strategies used in order to change and ameliorate the students' classroom behaviors that are considered undesirable in the evaluations of teacher trainees. *Journal of Uludağ University Faculty of Education*, 19 (1), 167-187.
- Sprott, R. A. (2019). Factors that foster and deter advanced teachers' professional development. *Teaching and Teacher Education*, 77, 321-331
- Summak, M. S., Bağlıbel, M., & Samancıoğlu, M. (2010). Technology readiness of primary school teachers: A case study in Turkey. *Procedia-Social and Behavioral Sciences*, 2(2), 2671-2675. <https://doi.org/10.1016/j.sbspro.2010.03.393>
- Şengür, S., & Anagun, S. (2021). Information technology usage levels of primary school teachers and Web 2.0 applications in education. *Journal of Education in Eskişehir Osmangazi University Turkic World Apply and Research Center*, 6 (2), 128-150
- Tabachnick, B.G. & Fidell, L. (2013). *B.G. Using Multivariate Statistics* (6th ed.) Pearson, Boston
- Uçak, K., & Bindak, R. (2017). Professional anxiety levels of physical education and sport teacher candidates (ondokuz mayis university sample). *Journal of National Sport Sciences*, 1(2), 44-54. <https://doi.org/10.30769/usbd.332204>

- Ulaş, A. H., & Ozan, C. (2010). The qualification level of primary school teachers' use of educational technology. *Journal of Graduate School of Social Sciences*, 14 (1), 63-84.
- Ursavaş, Ö., Şahin, S., & Mcilroy, D. (2014). Technology acceptance measure for teachers: T-TAM. *Journal of Theory and Practice in Education*, 10(4), 885-917.
- Usluel, Y., Mumcu, F. K., & Demiraslan, Y. (2007). Ict in the learning-teaching process: teachers' views on the integration and obstacles. *Journal of Hacettepe University Faculty of Education*, 32 (32), 164-178.
- Varank, I., & Ilhan, S. (2013). The effects of teachers' educational technology skills on their classroom management skills. *Mevlana International Journal of Education (MIJE)*, 3(4), 138-146. <http://dx.doi.org/10.13054/mije.13.60.3.4>
- Yalçınkaya, M., & Tonbul, Y. (2002). The perception and observation regarding to the primary school teachers' classroom management skills. *Ege Journal of Education*, 1(2).
- Yılmaz, Z., & Aydın, Ö. (2015). Investigation of primary school teachers' perceptions of classroom management skills with respect to some variables. *Mersin University Journal of the Faculty of Education*, 11 (1).