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THE RELATIONSHIP BETWEEN TEACHERS' TEACHING STYLES AND THEIR ATTITUDES TOWARDS DISTANCE EDUCATION

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ABSTRACT

The purpose of this research was to determine the relationship between teachers' teaching styles and their attitudes towards distance education. In the study, the data were collected from teachers working in Mersin province public schools in the 2021 spring semester. As data collection tools, the Distance Education Attitude Scale and Grasha Teaching Style Scale were used. According to the findings, there were significant differences per different variables, but no relationship existed between the two scales.

Keywords: Teaching styles; distance education; teachers

ÖĞRETMENLERİN ÖĞRETME STİLLERİ İLE UZAKTAN EĞİTİME YÖNELİK TUTUMLARI ARASINDAKİ İLİŞKİ

ÖZET

Bu çalışmanın amacı öğretmenlerin sahip oldukları öğretme stilleri ile uzaktan eğitime yönelik tutumları arasındaki ilişkiyi ortaya koymaktır. Araştırma verileri 2021 Bahar döneminde Mersin ilinde resmi okullarda görev yapan öğretmenlerden toplanmıştır. Veri toplama aracı olarak Uzaktan Eğitime Yönelik Tutum Ölçeği ve Grasha Öğretme Stili Ölçeği kullanılmıştır. Elde edilen bulgulara göre farklı değişkenler bakımından anlamlı farklar tespit edilirken iki ölçek arasında ilişki tespit edilememiştir.

Anahtar Kelimeler: Öğretme Stilleri; uzaktan eğitim; öğretmenler

INTRODUCTION

Teachers and students are the primary constituents of educational activities, that play a substantial role in the development and progress of societies. In order to carry out the educational

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activities effectively, taking account of individual differences of students and adopting a student-fronted approach is important. In addition, like other primary constituents of educational activities, individual differences of teachers and their teaching styles are also of great significance because every teacher has their unique way of addressing topics and transferring knowledge.

Teaching style could be described as behaviors that teachers constantly and consistently demonstrate in their interactions with students during the teaching-learning process or as their ways of presenting knowledge and their interaction quality with students (Grasha, 2002; Felder, 1995). Some teachers often believe that some specific teaching styles are best for them due to suiting their personality and teaching psychology. However, in general, teachers should have teaching styles that can address different student personalities and their different learning styles and attitudes stemming from these personality differences. This is because teaching styles are the principal factors that shape complicated teaching-learning process and play the most significant part in leading this process to success (Artvinli, 2010). In order to develop a teaching style-oriented course design, educators should first determine their own adult style characteristics. This effort helps educators to get to know themselves. At present, many educators may reveal the characteristics of their styles with years of experience (Babadoğan, 2000).

Teaching styles are also one of the most influential factors in fulfilling learning, which is called the behavior change process (Ünal, 2017). Teaching styles are an important area of subject competence in the pedagogical formation dimension of the teaching profession that prospective teachers should acquire (Yeşilyurt, Okudan, & Kızılaslan, 2020). Content knowledge, pedagogical competence, professional self-efficacy, communication skills, and teaching experience of teachers are very important in achieving teaching goals. Teaching experiences of teachers and some of their personal characteristics (intelligence, interests, sociocultural levels, etc.) also shape their teaching styles. Presenting or teaching the same subject/unit in different ways is closely related to teachers' teaching styles as well as their professional competence (Maden, 2012).

Human beings are inherently in need of learning and change throughout their lives. Considering that learning is one of the basic needs of humans, offering education through different methods, improving and delivering it to everyone, and valuing the needs and individual differences come to the forefront. In an environment where change and innovation are felt and necessary at all times, it is unacceptable for learning and teaching to stand still (Ergin, 2010). The rapid spread of multimedia and communication technologies has increased the opportunities for lifelong learning and education at different times and places. With the introduction of the internet into our lives, higher education institutions have been trying to respond to the need for distance education by effectively integrating these technologies into their systems (Kavrat & Türel, 2013).

The Covid-19 pandemic has put negative impacts on all areas from health to socioeconomic life and caught countries unprepared. One of the areas affected the most by these impacts was the education system of counties. This process forces the established systems to reshape and make radical changes. These changes are observed in all levels of education, severely affecting all components of education,

especially teachers and students. With the transition to distance education, there has been confusion among stakeholders, and the consequences encountered in the continuum of this process are something unclear (Kaynar, Kurnaz, Doğrukök, & Şentürk Barışık, 2020).

Currently, there is an ongoing fight against a global outbreak and because of this outbreak, which rapidly spread throughout the world, a number of disruptions occurred in educational activities. Along with this outbreak, countries had to suspend face-to-face education and include all students in a system they already used. On the one hand, the students who received the education and on the other hand the teachers who gave the education were affected by the methods and practices known as distance education and they all tried to keep up with the situation (Kurnaz, Kaynar, Şentürk Barışık, & Doğrukök, 2020). Many teachers who had face-to-face education experiences and had developed their teaching styles accordingly started using the distance education system for the first time with this unexpected situation and tried to adapt to it.

Distance education refers to educational activities in which students, teachers, and educational tools located in different places are brought together through communication technologies. The first emergence of distance education was in vocational, social, or family education subjects. Such kind of education eliminates the time and space problems. The use of satellite technology for educational televisions in the 1990s improved the flexibility of time and space. In addition, the new opportunities that distance education brings in enriching the curriculum and its affordability compared to traditional education have played a significant role in its proliferation (TUENA, 1998).

In distance education, a more effective education opportunity can be offered to individuals by creating a flexible, rich, and interactive education environment, going beyond the stereotyped structure in traditional education. Distance education also plays an important role in reducing the cost of education by avoiding many factors such as buildings, classrooms, teachers, and educational materials that limit the capacity of students to participate in education. Considering all these, it is seen how important distance education is (Özbay, 2015). In addition to making positive contributions to the current education system, the distance education system also has disadvantages such as lack of communication, being antisocial, and difficulty of measurement and evaluation (Bozdağ & Dinç, 2020).

The utilization of information and communication technologies and distance education systems have been debated as an alternative system even before the Covid-19 outbreak. However, the fact that millions of students had to stay home speeded up providing distance education services. Education Information Network (EBA), which was already in use, began to fulfill an important task in this process (Demir & Özdaş, 2020). The Ministry of National Education currently offers distance education opportunities to students through the Education Information Network infrastructure in all primary and secondary education institutions (Uyar, 2020). Like many countries, through distance education systems, Turkey has been trying to solve the education issue, which has affected millions with the prolongation of the Covid-19 outbreak. After improving technological infrastructures, distance education practices started at all levels in a short time and these practices are still in progress. However,

the extent to which distance education alone is effective has been a matter of debate recently and, like in many countries, the option of continuing face-to-face education comes to the fore in Turkey.

Teachers should adapt their experiences and teaching strategies to this system to get effective results from distance education practices. In addition, online developers should know various learning approaches to select the most appropriate teaching strategies. Strategies should motivate learners, address individual differences, encourage meaningful learning and interaction, and provide relevant feedback (Ally, 2008). This study aimed to examine the distance education attitudes of teachers with different teaching styles according to various variables (gender, professional seniority, and professional status). Answers were sought to the following research questions.

1- What teaching style do teachers adopt when conducting distance education activities?

2- How do teachers with different teaching styles evaluate distance education activities during the Covid-19 outbreak?

3- What are the teachers' views on distance education per their teaching styles?

METHOD

This study was carried out using a correlational survey model to examine the relationship between teachers' attitudes towards distance education and their teaching styles. Correlational survey model targets revealing the relationship between two or more variables (Karasar, 2003).

Study Group

The data of the study were collected from 316 teachers working in Mersin province public schools in the 2021 spring semester. As a result of the normality analysis conducted on the research data, seven cases distorting normal distribution were removed and the analyses were carried out with data from 309 teachers. The distribution of data is shown in Table 1 per gender, branch, and seniority.

Table 1. Distribution of Teachers Who Participated in the Study

		N	*%*
Gender	Female	148	47.9
	Male	161	52.1
Branch	Classroom Teacher	141	45.6
	Branch Teacher	168	54.4
Seniority	0-5 years	35	11.3
	6-10 years	68	22.0
	11-15 years	85	27.5
	16-20 years	67	21.7
	21 years or more	54	17.5

Considering the distribution of research participants, there were 148 (47.9%) female and 161 (52.1%) male teachers. Classroom and branch teachers were 141 (45.6%) and 168 (54.4%) in number, respectively. Considering the distribution of their seniority, 35 (11.3%) teachers had 0-5, 68 (22%) had 6-10, 85 (27.5%) had 11-15, 67 (21.7%), and 54 (17.5%) had 21+ years of seniority.

Data Collection Tools

Distance Education Attitude Scale: This scale was developed by Ağar (2007) to measure the attitudes of teachers towards distance education. It consisted of two sub-dimensions, the advantages of distance education and limitations of distance education. The advantages of distance education refer to positive opinions regarding distance education. However, the limitations of distance education comprise negative opinions regarding distance education. As such, the total score of the scale was not computed. Instead, separate analyses were conducted with each sub-dimension. The Cronbach's alpha value relating to the scale reliability was 0.903 for the Advantages of Distance Education subscale and 0.854 for the Limitations of Distance education.

Grasha Teaching Styles Scale: Grasha (1994) developed this scale to measure the teaching styles used by teachers. Then, Sarıtaş and Süral (2010) adapted it into Turkish culture. The Grasha Teaching Styles Scale consists of five sub-dimensions and 40 items, with eight items under each sub-dimension. These sub-dimensions were Expert, Formal Authority, Personal Model, Facilitator, and Delegator,

respectively. The total score was not obtained because each sub-dimension measured a different teaching style. The Cronbach's alpha reliability coefficients of the sub-dimensions of the scale were computed. Accordingly, the reliability value was 0.786 for Expert, 0.752 for Formal Authority, 0.814 for Personal Model, 0.771 for facilitator, and 0.806 for Delegator.

FINDINGS

Scores that teachers who participated in the study obtained from the Distance Education Attitude Scale and Grasha Teaching Styles Scale are shown in Table 2.

Table 2. Descriptive Statistics Relating to the Sub-dimensions of Scales

Scale	Sub-dimension	*N*	$\bar{X}$	*SD*
Distance Education Attitude Scale	Advantages of Distance Education	309	2.83	.66
	Limitations of Distance Education	309	3.67	.77
Grasha Teaching Styles Scale	Expert	309	3.77	.31
	Formal Authority	309	3.60	.40
	Personal Model	309	4.20	.39
	Facilitator	309	4.43	.33
	Delegator	309	3.57	.43

Considering the mean scores of the sub-dimensions of the teachers' attitude scale, the mean score relating to the advantages of distance education was low ($\bar{x}$ = 2.83). Accordingly, teachers may have demonstrated a negative attitude towards the advantages of distance education. Moreover, the mean score relating to the limitations of distance education subscale was $\bar{x}$ = 3.67, showing that teachers had moderate views concerning the limitation of distance education.

Considering the scores obtained from the Teaching Styles Scale sub-dimensions, teachers obtained the highest score from the facilitator sub-dimension ($\bar{x}$=4.43). Teachers see themselves at a higher level in the Facilitator sub-dimension. Scores obtained from the personal model sub-dimension was ($\bar{x}$=4.20), which shows that teachers consider themselves at a high level in this sub-dimension. Considering other sub-dimensions, scores obtained from the Expert, Formal Authority, and Delegator sub-dimensions were ($\bar{x}$=3.77), ($\bar{x}$=3.60), and ($\bar{x}$=3.57), respectively. Accordingly, one could contend that teachers find themselves at moderate levels in these three sub-dimensions.

T-test results relating to gender differences in teachers' attitudes towards distance education are presented in Table 3.

Table 3. Results of T-Tests Applied to the Sub-dimensions of Distance Education Attitude Scale According to the Gender Variable

Distance Education Attitude Scale	Gender	*N*	$\bar{X}$	*SD*	*t*	*df*	*p*
Advantages of Distance Education	Female	148	2.81	.63	-.600	307	0.549
	Male	161	2.85	.68			
Limitations of Distance Education	Female	148	3.77	.75	2.185	307	0.030*
	Male	161	3.58	.78			

*$p < 0.05$

According to the results of t-tests conducted to measure whether teachers' views on distance education significantly differed by gender variable, there was no significant gender difference in the Advantages of Distance Education sub-dimension. Contrarily, scores of female teachers ($\bar{x}$=3.77) from the Limitations of Distance Education sub-dimension significantly differed from those of male teachers ($\bar{x}$=3.58). Female teachers were more concerned about the limitations of distance education than male teachers.

Furthermore, the t-test results on whether the gender variable makes a difference in the sub-dimension of teaching styles are presented in Table 4.

Table 4. Results of T-Tests Applied to the Sub-dimensions of Grasha Teaching Styles Scale According to the Gender Variable

Grasha Teaching Styles Scale	Gender	*N*	$\bar{X}$	*SD*	*t*	*df*	*p*
Expert	Female	148	3.82	.33	2.994	307	.003
	Male	161	3.72	.29			
Formal Authority	Female	148	3.75	.39	6.651	307	.000
	Male	161	3.46	.35			
Personal Model	Female	148	4.37	.42	7.729	307	.000
	Male	161	4.05	.29			
Facilitator	Female	148	4.50	.33	3.435	307	.000
	Male	161	4.37	.32			
Delegator	Female	148	3.74	.39	7.133	307	.001
	Male	161	3.41	.40			

*$p < 0.05$

As seen in Table 4, there were significant gender differences in all sub-dimensions of teachers' teaching styles. The scores female teachers had in all sub-dimensions were significantly higher than those of male teachers. Considering the sub-dimensions, female and male teachers obtained ($\bar{x}$=3.82) and ($\bar{x}$=3.72) from the Expert, ($\bar{x}$=3.75) and ($\bar{x}$=3.46) from the Formal Authority, ($\bar{x}$=4.37) and ($\bar{x}$=4.05) from the Personal Model, ($\bar{x}$=4.50) and ($\bar{x}$=4.37) from the Facilitator, plus ($\bar{x}$=3.74) and ($\bar{x}$=3.41) from the Delegator sub-dimension, respectively. Gender variable yielded significant differences in the sub-dimensions of the Grasha Teaching Styles Scale.

The results of t-tests performed to examine the differences between the classroom and branch teachers' attitudes towards distance education are presented in Table 5.

Table 5. Results of T-Tests Applied to the Sub-dimensions of Distance Education Attitude Scale According to the Branch Variable

Distance Education Attitude Scale	Gender	*N*	$\bar{X}$	*SD*	*t*	*df*	*p*
Advantages of Distance Education	Classroom Teacher	141	2.71	.62	-3.029	307	.003
	Branch Teacher	168	2.93	.68			
Limitations of Distance Education	Classroom Teacher	141	3.82	.69	3.127	307	.002
	Branch Teacher	168	3.55	.82			

*$p < 0.05$

When the differences between scores teachers obtained from the sub-dimensions of the Distance Education Attitude Scale were examined per branch variable, there were significant differences in both sub-dimensions between classroom and branch teachers. While the mean score of classroom teachers relating to the advantages of distance education was ($\bar{x}$=2.71), the mean score of branch teachers was ($\bar{x}$=2.39). Similarly, the mean score of classroom teachers relating to the limitations of distance education was ($\bar{x}$=3.82), but that of branch teachers was ($\bar{x}$=3.55). Accordingly, classroom teachers had more negative attitudes towards distance education in both-sub-dimensions than branch teachers.

The results of t-tests performed on whether the branch variable makes any difference in the sub-dimensions of teaching styles are presented in Table 6.

Table 6. Results of T-Tests Applied to the Sub-dimensions of the Grasha Teaching Styles Scale According to the Branch Variable

Grasha Teaching Styles Scale	Gender	*N*	$\bar{X}$	*SD*	*t*	*df*	*p*
Expert	Classroom Teacher	141	3.82	.23	2.597	307	.010*
	Branch Teacher	168	3.73	.37			
Formal Authority	Classroom Teacher	141	3.68	.31	3.158	307	.002*
	Branch Teacher	168	3.53	.45			
Personal Model	Classroom Teacher	141	4.35	.37	6.096	307	.000*
	Branch Teacher	168	4.08	.38			
Facilitator	Classroom Teacher	141	4.48	.30	2.702	307	.007*
	Branch Teacher	168	4.38	.35			
Delegator	Classroom Teacher	141	3.65	.36	3.213	307	.005*
	Branch Teacher	168	3.49	.48			

*$p < 0.05$

As shown in Table 6, significant differences were found according to the branch variable in all teaching styles that teachers used. In all sub-dimensions, classroom teachers obtained significantly higher scores than branch teachers. Considering these sub-dimensions, classroom and branch teachers obtained scores of ($\bar{x}$=3.82) and ($\bar{x}$=3.73) from the Expert, ($\bar{x}$=3.68) and ($\bar{x}$=3.53) from the Formal Authority, ($\bar{x}$=4.35) and ($\bar{x}$=4.08) from the Personal Model, ($\bar{x}$=4.48) and ($\bar{x}$=4.38) from the Facilitator, and ($\bar{x}$=3.65) and ($\bar{x}$=3.49) from the Delegator sub-dimension, respectively. The branch variable yielded significant differences in the sub-dimensions of the Grasha Teaching Styles Scale. Classroom teachers had significantly higher scores than branch teachers.

Table 7. ANOVA Results Relating to the Views of Teachers on Distance Education According to the Seniority Variable

Scale		Seniority	*N*	$\bar{X}$	*df*	*F*	*p*	Significant Difference
Distance Education Attitude Scale	Advantages of Distance Education	0-5 years	35	3.13	4-304	7.591	.000*	♠ Between 20 years or more and all others; ♠ Between 0-5 and 16-20 years and more
		6-10 years	68	2.96				
		11-15 years	85	2.90				
		16-20 years	67	2.75				
		20 years or more	54	2.47				
	Limitations of Distance Education	0-5 years	35	3.33		5.950	.000*	Between 20 years or more and 0-5, 6-10, and 11-15 years Betwen16-20 and 0-5 and 6-10 years
		6-10 years	68	3.53				
		11-15 years	85	3.61				
		16-20 years	67	3.79				
		20 years or more	54	4.02				

*$p < 0.05$

Considering the ANOVA results relating to the views of teachers per seniority variable, negative attitudes may develop generally when there is an increase in seniority. Those with 0-5 years of seniority had the highest score in the Advantages of Distance Education sub-dimension ($\bar{x}$ = 3.13). Teachers with 6-10, 11-15, 16-20, and 20+ years of seniority obtained scores of ($\bar{x}$=2.95), ($\bar{x}$=2.90), ($\bar{x}$=2.75), and ($\bar{x}$=2.47), respectively. As seniority increases, scores obtained from the Limitations of Distance Education sub-dimension decrease. According to the results of the Post Hoc test performed because of significant differences between scores, there was a significant difference between teachers with 20+ years of seniority who had the lowest score regarding the Limitations of Distance Education and other groups. Similarly, in this same sub-dimension, a significant difference was found between teachers with 0-5 and those with 16-20 years of seniority.

Table 8. ANOVA Results Regarding the Views of Teachers on Their Teaching Styles According to the Seniority Variable

		Seniority	*N*	$\bar{X}$	*df*	*F*	*p*	Significant Difference
Grasha Teaching Styles Scale	Expert	0-5 years	35	3.71	4-304	2.432	.093	
		6-10 years	68	3.74				
		11-15 years	85	3.74				
		16-20 years	67	3.78				
		20 years or more	54	3.88				
	Formal Authority	0-5 years	35	3.55		.211	.326	
		6-10 years	68	3.61				
		11-15 years	85	3.59				
		16-20 years	67	3.62				
		20 years or more	54	3.61				
	Personal Model	0-5 years	35	4.24		1.165	.214	
		6-10 years	68	4.14				
		11-15 years	85	4.17				
		16-20 years	67	4.26				
		20 years or more	54	4.25				
	Facilitator	0-5 years	35	4.47		1.163	.327	
		6-10 years	68	4.42				
		11-15 years	85	4.38				
		16-20 years	67	4.42				
		20 years or more	54	4.50				
	Delegator	0-5 years	35	3.59		1.462	.914	
		6-10 years	68	3.58				
		11-15 years	85	3.52				
		16-20 years	67	3.51				
		20 years or more	54	3.68				

The results also suggest that scores relating to the limitations of distance education increases when there is an increase in seniority. Teachers with 0-5 years of seniority had the lowest score concerning the limitations of distance education ($\bar{x}$ = 3.33). However, teachers with 6-10, 11-15, 16-20, and 20+ years of seniority had scores of ($\bar{x}$=3.53), ($\bar{x}$=3.61), ($\bar{x}$=3.79), and ($\bar{x}$=4.02), respectively. According to the Post Hoc test results conducted due to the presence of significant differences between the scores, significant differences were found between teachers with 20+ years of seniority and those with 0-5, 6-10, and 11-15 years of seniority. In addition, significant differences existed between teachers with 16-20 years of seniority and those with 6-11 and 6-11 years of seniority. Accordingly, as the years of seniority increase, scores relating to limitations of distance education also increase.

According to the results of the ANOVA conducted to measure whether the seniority variable made any significant difference in the scores teachers obtained from the sub-dimensions of the Grasha Teacher Style Scale, there were no significant differences in all five sub-dimensions per seniority. Accordingly, seniority made no difference in teaching styles.

Relationships between the sub-dimensions of the Distance Education Attitude Scale and those of the Teaching Styles Scale are shown in Table 9.

Table 9. Correlation Between Teachers' Teaching Styles and Their Attitudes towards Distance Education

	Advantages of Distance Education	Limitations of Distance Education
Expert	-.007	.052
Formal Authority	-.026	.066
Personal Model	-.005	.107
Facilitator	-.037	.040
Delegator	-.043	.046

The correlation table examining the relationship between attitudes towards distance education and teaching strategies shows that the sub-dimensions of the two scales are not related to each other.

DISCUSSION AND CONCLUSION

According to research findings, teachers generally had negative perceptions concerning distance education. They believed less in the advantages but more in the limitations of distance education. Other studies in the literature, especially those conducted during the Covid-19 outbreak, have shown that no matter how distance education is believed to be useful in difficult times, by and large, negative opinions exist concerning distance education (Balaban & Hanbay Tiryaki, 2021; Canpolat & Yıldırım, 2021; Batdal Karaduman, Akşak Ertaş, & Duran Baytar, 2021; Karaca, Karaca, Karamustafaoğlu, & Özcan, 2021; Moçoşoğlu & Kaya, 2020). Here, it is possible to say that distance education cannot replace face-to-face education per teachers' perspectives.

When gender differences in attitudes towards distance education were examined, no significant differences were found concerning the advantages of distance education. However, female teachers believed in the limitations of distance education more than did male teachers. Other relevant studies also found no significant gender differences (Kurnaz, Kaynar, Şentürk Barışık, & Doğrukök, 2021; Ülkü, 2018; Ergin, 2010; Karaca, Karaca, Karamustafaoğlu, & Özcan, 2021; Moçoşoğlu & Kaya, 2020). Thus, more studies are needed in this regard.

According to t-test results on whether the branch variable made a difference in distance education attitudes, classroom teachers had more negative attitudes towards distance education than branch teachers. Contrary to this study, other studies found no significant differences in attitudes towards distance education per branch variable (Ülkü, 2018; Ergin, 2010; Kurnaz, Kaynar, Şentürk Barışık, & Doğrukök, 2021). Classroom teachers' work normally requires them to more closely interact with students and conduct more practical educational activities. That is why the present study may have come up with this conclusion.

According to the results of ANOVA performed to measure whether seniority made a difference in attitudes towards distance education, negative attitudes increase towards distance education when seniority increases. These findings are consistent with those of other studies in the literature. Studies have shown that as years of seniority increase, teachers develop negative attitudes towards distance education (Karaca, Karaca, Karamustafaoğlu, & Özcan, 2021; Moçoşoğlu & Kaya, 2020; Ergin, 2010;

Ülkü, 2018). In contrast, Kurnaz, Kaynar, Şentürk Barışık, and Doğrukök (2021) found no significant differences according to the seniority variable. The results also confirm the negative relationship between age and attitudes towards technology. As in the general society, young teachers approach technology and thus distance education more positively. As the age increases, they may demonstrate more negative attitudes.

An examination of the Grasha Teaching Styles Scale showed that the highest scores were obtained from the Facilitator and Personal Model sub-dimensions. However, scores obtained from the Expert, Formal Authority, and Delegator sub-dimensions were at moderate levels. Considering the relevant studies, in a study with primary education teachers, Süral (2013) claims that most teachers had a facilitator teaching style, followed by the Expert, Delegator, Formal Authority, and Personal Model sub-dimensions. In their study, Saracaloğlu, Aldan Kandemir, Dinçer, and Dedebali (2017) concluded that teachers obtained high scores in all teaching styles. According to another study by Evin Gencel (2013) Saracaloğlu, Aldan Kandemir, Dinçer ve Dedebali (2017) with Turk and American teachers, Turk teachers highly preferred the expert, formal authority, and facilitator teaching dimensions but moderately preferred the personal and delegator dimensions. However, American teachers preferred the formal authority dimension less, but preferred other dimensions more. Altay (2009) found that teachers highly prefer the facilitator, expert, and delegator styles but moderately prefer the personal and authoritative teaching styles. Different findings exist in the literature on this issue. Therefore, more studies are needed in this regard.

When gender differences in teachers' teaching styles were examined, female teachers had higher scores in all teaching styles than male teachers and the difference was significant. In parallel to this study, Saracaloğlu, Aldan Kandemir, Dinçer, and Dedebali (2017) concluded that female teachers obtained higher scores in all teaching styles than male teachers. In contrast, studies also report non-significant gender differences. In a study with English teachers, Öner (2019) found no significant gender differences in teaching styles. Similarly, Süral (2013) and Özdemir (2019) also found no significant gender differences. However, Saracaloğlu, Dedebali, Dinçer, and Dursun (2010) found a significant difference in facilitator style favoring female teachers and Maden (2012) found a significant difference in the authoritative style favoring male teachers. In addition, Ünal (2017) reported a significant difference in the expert style favoring male teachers. Generally, different studies have obtained different results per gender variable. Thus, more studies may be required in this regard.

As a result of tests conducted to measure whether the branch variable created significant differences in teaching styles, the study found that classroom teachers had significantly higher scores in all teaching styles than branch teachers. Saracaloğlu, Aldan Kandemir, Dinçer, and Dedebali (2017) found no significant difference in their study according to branch. However, Süral (2013) concluded that mathematic teachers obtained higher scores than teachers from other branches. In this study, the fact that classroom teachers had higher scores in teaching styles than teachers from other branches could

be explained by states like classroom teachers' establishing close relationships with students and being more influential in their lives.

As a result of examining teachers' teaching styles according to the seniority variable, the study found that seniority did not create significant differences in teaching styles. Likewise, Öner (2019), Özdemir (2019), and Ünal (2017) found no significant differences according to seniority. By contrast, Süral (2013) reported significant differences in all styles. Similarly, Saracaloğlu, Aldan Kandemir, Dinçer, and Dedebali (2017) found significant differences in authoritative style in favor of senior teachers. However, Saracaloğlu, Dedebali, Dinçer ve Dursun (2010) found a significant difference in delegator style, favoring teachers with low seniority. More studies are needed in this regard to make a general judgment.

Further, when the relationship between teachers' attitudes towards distance education and their teaching styles were examined, no significant relationship was found between the variables. The teaching styles of teachers were independent of distance education. From this perspective, these two variables did not affect each other.

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A MIXED METHOD STUDY: THE EXAMINATION OF INSTRUCTOR'S SELF-EFFICACY PERCEPTION AND VIEWS IN FLIPPED LEARNING

Tolga ÇAY[1]

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ABSTRACT

The aim of this study is to examine the self-efficacy perceptions of lecturers in flipped learning and the opinions of preparatory school lecturers about their self-efficacy in flipped learning. Convergent parallel design, one of the mixed research methods, was employed in the study. The study group consisted of 31 Turkish lecturers who work at the School of Foreign Languages at Çağ University. The quantitative data of the research was obtained through the Flipped Learning Teacher Self-Efficacy Scale. Qualitative data was collected by open-ended questions form developed by the researcher. As a result of the study, it was concluded that the flipped learning self-efficacy perceptions of the preparatory school lecturers were at a high level. In addition, the lecturers stated that their self-efficacy in flipped learning and technology use was at a certain level, but they had to continuously improve.

Keywords: Flipped learning; flipped classroom; self-efficacy; blended learning; foreign language.

ÖĞRETİM GÖREVLİLERİNİN TERS YÜZ ÖĞRENMEDE ÖZ YETERLİK ALGILARI VE GÖRÜŞLERİNİN İNCELENMESİ: BİR KARMA YÖNTEM ÇALIŞMASI

ÖZET

Bu çalışmanın amacı, hazırlık okulu öğretim görevlilerinin ters yüz öğrenme üzerine öz-yeterlik algılarını ve ters yüz öğrenmedeki öz yeterliklerine ilişkin görüşlerini incelemektir. Araştırmada karma araştırma yöntemlerinden yakınsayan paralel desen kullanılmıştır. Çalışma grubu Çağ Üniversitesi Yabancı Diller Yüksekokulu'nda görev yapan 31 Türk öğretim üyesinden oluşmaktadır. Araştırmanın nicel verileri Ters Yüz Öğrenmede Öğretmen Öz-Yeterlik Ölçeği ile elde edilmiştir. Nitel veriler, araştırmacı tarafından geliştirilen açık uçlu soru formu ile toplanmıştır. Araştırma sonucunda hazırlık okulu öğretim elemanlarının ters yüz öğrenme öz-yeterlik algılarının yüksek düzeyde olduğu sonucuna varılmıştır. Ayrıca öğretim görevlileri

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kendi görüşlerinde, ters yüz öğrenme ve teknoloji kullanımındaki öz yeterliklerinin belirli bir düzeyde olduğunu ancak sürekli geliştirmeleri gerektiğini belirtmişlerdir.

Anahtar Kelimeler: Ters yüz öğrenme; ters yüz edilmiş sınıf; öz yeterlik; harmanlanmış öğrenme; yabancı dil.

INTRODUCTION

In the developing modern world, the effect of technology has begun to feel undeniable in every field. With the development of 5G technology and the industry 5.0 revolution, this effect is expected to increase even more. This effect, which is not limited to the production and consumption sectors, has now brought innovations in the field of education. In this context, some new methods and techniques such as hybrid, blended, web-based models have emerged. The flipped classroom, which is one of these methods, has been adopted by many educational institutions in the direction of their own programs in the Covid-19 pandemic process and has been actively used. The flipped classroom model generally reverses the traditional teaching process and requires the student to learn from the materials provided by the lecturer in the online environment outside the classroom, and the subject taught by the lecturer in the classroom. In the classroom, it paves the way for the deepening and reinforcement of the learning by discussing the subject and making reinforcing activities. When considered in terms of the revised Bloom's taxonomy, "remembering and understanding", which is one of the lower level learning steps, takes place online before the lesson, while the "application, analysis, evaluation and creation" steps, which are the steps for higher-level learning, are realized during the lesson. With this model, since theoretical knowledge will be given before the lesson, in-class time will also be saved (Cukurbasi & Kiyici, 2017; Miller, 2012; Turan & Goktas, 2015). This will enable more effective and efficient use of interactive time in the classroom and more reinforcing activities and applications during the lesson. The components of the flipped class model are examined below (FLN, 2016):

Flexible Environment: The content prepared by the teachers is shared on the online platform and the student can access the content from anywhere and anytime regardless of the place and time.

Learning Culture: In the model, teachers cease to be the center of knowledge, create learning opportunities for students and adopt a student-centered approach in the classroom environment. Students learn actively by evaluating their own learning and taking part in the structure of knowledge.

Intentional Content: Materials appropriate for the content are created or provided by the teacher according to the individual characteristics, weaknesses and strengths of the students. Besides the didactic materials, teachers organize activities and activities according to the characteristics of the students.

Professional Educator: Professional trainers are more prominent and important in this model than traditional classes. These instructors observe students throughout the lesson, evaluate their work, and give them instant feedback. At the same time, they are in constant communication with students

outside of the classroom. Although the trainers' responsibilities seem to be reduced by the model, they are excessive and open to criticism.

Based on the above information, it is seen that one of the components of the flipped classroom model is Professional Trainer. In this context, educators are expected to improve their technological literacy level with the developing technology, to have knowledge about developing methods, to develop their skills in order to use these methods, and to plan and organize the teaching process. Although at first glance, it seems that the responsibility over the trainer is reduced, the development of the trainer is important in order to use the model effectively and efficiently and the trainer has more responsibility in this model compared to traditional methods. Thus the teacher efficacy on technology and flipped classroom model is vital for proper education.

Teacher efficacy is defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman et al., 1977, p.137). Modern iterations of teacher efficacy are situated in social cognitive theory, and the construct has been demonstrated to be both context and subject dependent (Dellinger, Bobbett, Olivier, & Ellett, 2008; Tschannen-Moran & Hoy, 2001). Ostensibly similar to Bandura's (1977) theory of self-efficacy, where the focus lies on the outcomes for oneself, teacher efficacy differs in that it measures the belief in the ability to influence the outcomes of others (Hoy, 2000). Both teacher efficacy and self-efficacy are affected by 3 factors: experience, vicarious experience, and social persuasion (Bandura, 1977; Protheroe, 2008).

Although there are studies on the flipped classroom model in the literature, it has been observed that these studies generally examine the effects of the model on academic achievement, attitude, motivation, student and teacher perceptions, and variables such as advantage and disadvantage (Evseeva & Solozhenko, 2015; Lee & Wallace, 2018; Lo & Hew, 2018; Abedi, Namaziandost & Akbari, 2019; Namaziandost & Cakmak, 2020). In this study, lecturer self-efficacy perception and lecturers' views on self-efficacy were examined. However, when the literature was examined, it was seen that there were limited studies to determine and develop the effects of the model on self-efficacy perception. In order to obtain effective results regarding the use of technology in the flipped classroom model, it is important to determine the self-efficacy perceptions of the lecturers as well as the students in order to increase the quality of the teaching process. It is thought that the use of the model will be more effective and easier if the instructors feel competent and safe about using information technologies. Based on this, it is thought that the study will inspire researchers for its contribution to the relevant literature and for further research.

The aim of the research is to examine the opinions of prep school lecturers on self-efficacy perceptions and views on self-efficacy perceptions in flipped learning. From this point of view, the problem sentence of the study was determined as "What is the level of self-efficacy perception of prep

school lecturers in flipped learning?" and "What are the opinions of lecturers on their self-efficacy perceptions in flipped learning?". Thus, the research questions of the study are as follows:

1. What is the level of self-efficacy perception of prep school lecturers in flipped learning?
2. What are the opinions of lecturers on their self-efficacy perceptions in flipped learning?

RESEARCH MODEL

In this study, since both quantitative and qualitative data were collected in order to determine the self-efficacy perceptions and opinions of lecturers in flipped learning, convergent parallel design was employed from mixed research methods. In order to expand the data obtained within the scope of the research, quantitative and qualitative data were collected together; the two data were analyzed independently in the analysis process and were combined and interpreted at the last stage. According to Creswell and Plano Clark (2014), both qualitative and quantitative data are collected simultaneously in this design and both data are included equally. In this study, quantitative and qualitative data were collected together. The qualitative dimension of the study was prepared in a way that supports the dimensions and items of the scale used in collecting quantitative data.

Study Group

This research was conducted in the fall semester of the 2020-2021 academic year with the preparatory school lecturers of a private higher education institution in the Mediterranean region. The study group consist of 31 lecturers. Easily accessible situation sampling was used to determine the sample. Because in this method, the researcher chooses a situation that is close and easy to access (Yildirim & Simsek, 2005).

Data Collection Tools

The measurement tools were used to obtain data from lecturers within the scope of the research are as follows:

1. Flipped Learning Teacher Self-Efficacy Perception Scale to determine the self-efficacy perceptions of lecturers,
2. An Open-Ended Question Form was applied to get the opinions of the lecturers about their self-efficacy in reverse learning.

Flipped Learning Teacher Self-Efficacy Perception Scale

Flipped Learning Teacher Self-Efficacy Perception Scale is used to determine the self-efficacy perceptions of lecturers.

The scale used is the "Flipped Learning Teacher Self-Efficacy Perception Scale" developed by Erensayin, Guler and Erensayin (2019) to determine teachers' perceptions of flipped learning self-efficacy. The validity and reliability study of the scale was conducted by Erensayin (2019). Erensayin, Guler and Erensayin (2019) found that Cronbach's Alpha reliability coefficient was 0.95. According to the study conducted by Erensayin, Guler and Erensayin (2019), the scale was found as 27 items with 4 factors. The scale is a 5-point Likert-type grading scale and includes "absolutely not appropriate (1)",

“not appropriate (2)”, “slightly appropriate, slightly unappropriate (3)”, “appropriate (4)” and “absolutely appropriate (5)”.

As a result of the application of the Flipped Learning Self-Efficacy Scale used in the study in a study group of 31 people, the cronbach alpha value for this application was; The cronbach alpha internal consistency coefficient was determined as 0.950. The fact that the obtained coefficient is above .70 (Alpar, 2014, p. 439), although the number of the study group is small, indicates that the analyzes to be made within the scope of the study will give reliable results. While the lowest score that can be obtained from the scale is 27, the highest score is 135.

Open-Ended Questionnaire

The open-ended question form developed by the researcher was created in order to get the opinions of the lecturers in the study group about their self-efficacy perceptions in flipped learning. While preparing the form, the literature was searched and draft questions were created. Then, expert opinions were taken from two faculty members in the field of education programs and training. Final arrangements have been made in line with the feedback they have given and made ready for use in research. The open-ended question form is one of the data collection tools used to collect qualitative data. It is a technique that is referred to as "open - ended questions" or "open survey ended survey" in the literature and aims to collect written opinions of the participants about the research (Akdag & Coklar, 2009). In order to learn the opinions of the lecturers in the study group on their self-efficacy perceptions in flipped learning, the lecturers answered the open-ended questions form created through Google Forms online. The questions are stated below:

1) What do you think about the place of technology in education?
2) Can you explain your purposes of using technological tools in the learning environment?
3) What criteria do you consider when creating technology-supported learning material? (what do you care about?)
4) Do you consider yourself sufficient in using technology in the flipped learning process? Could you explain with reasons?

Data Analysis

The data collection process in the study was carried out by the researcher on the basis of the voluntary participation of the preparatory school lecturers. While collecting the data, participants were informed of the purpose of the study and made sure that the collected data would be kept anonymous and confidential. Data were collected via Google Forms in December. Descriptive statistics were used to analyze the quantitative data. While interpreting the averages, for the items in the measurement tool; Average values between 1.00-1.79 were “absolutely not appropriate”, average values between 1.80-2.59 were “not appropriate”, average values between 2.60-3.39 were “slightly appropriate, slightly unappropriate”, average values between 3.40-4.19 were “appropriate” and average values between 4.20-5.00 were accepted as “absolutely appropriate”.

The content analysis method was used for the analysis of qualitative data. Content analysis is to bring together similar data within the framework of certain concepts and themes and interpret them in a way that the reader can understand (Yildirim & Simsek, 2005). Content analysis is a scientific approach that allows an objective and systematic examination of verbal, written, and other materials (Tavsancil & Aslan, 2001). Qualitative data analysis is a process in which the researcher organizes the data, divides them into analysis units, synthesizes, reveals patterns, discovers important variables, and decides what information to reflect on the report (Ozdemir, 2010). The content analysis of the data obtained in the research was carried out in three stages. In the first stage, the main categories emerging for the purpose of the research from the answers given to the research question were determined. In the second stage, the data were organized by reading according to the main categories previously determined and sub-categories of the main categories were determined. In the third stage, the data are defined according to the main category and sub-categories, and the information that comes up with the necessary quotations is presented in relation to each other. The data obtained with the form of the open-ended question, in which the lecturers in the study group expressed their opinions about self-efficacy, were arranged and appropriate themes were created by 2 different experts. Then the coding reliability of the data obtained in the study was calculated using Miles and Huberman's formula (Reliability = consensus / (consensus + divergence) * 100). The fact that the coding among the coders is at least 80% indicates that the research results are reliable (Miles & Huberman, 1994; Patton, 2002).

Table 1. Reliability Coefficient Between Encoders

Question Number	Reliability Coefficient Between Encoders
1.	0.80
2.	0.83
3.	0.85
4.	0.80

Since the reliability coefficient of Miles Huberman for the questions in the open-ended questionnaire was above .80 (80%), it was concluded that the consensus among the coders was reliable.

In the abbreviations used in the findings, M for Male, F for Female was used. For example; (F, 5) F means female, 5 is lecturer number.

FINDINGS

Findings Related to First Sub-Problem

What is the level of self-efficacy perceptions of prep school lecturers in flipped learning? Results about the self-efficacy perception levels of prep school lecturers in flipped learning are given in Table 2.

Table 2. Descriptive Results of Self-Efficacy Perception Levels of Prep School Lecturers

	$\bar{X}$	Sd
1 I can prepare activities in which theoretical knowledge can be applied for my course.	4.70	.09
2 I can upload multiple learning materials (video, sound, animation) to the internet that will help students learn the subject outside of the classroom.	4.58	.12
3 I can use the internet safely.	4.48	.14
4 I can prepare accurate/reliable online course materials for students.	4.61	.12
5 I can select accurate/reliable online course materials for students.	4.67	.09
6. I can prepare lecture videos for students to watch the lesson topics before they come to the classroom.	4.19	.19
7. I can use technological tools at a level to prepare lecture videos.	4.03	.19
8. I can prepare active learning activities that students can practice in the classroom.	4.51	.13
9. I can guide students to actively use technological tools.	4.25	.17
10. I can provide the necessary environment for students to benefit from educational platforms (Moodle).	4.51	.13
11. I can provide education that students can actively use computers, internet, online networks, etc.	3.90	.18
12. I can upload the digital learning materials I prepared for my lesson to CD, DVD, Flash Memory, Memory card etc.	4.70	.10
13. I can prepare individual learning materials using computer, printer, scanner and internet technologies.	4.51	.17
14. In the classroom environment, I can prepare activities that support the theoretical knowledge that each student has learned outside of school.	4.64	.10
15. I can understand whether students watch lecture videos at home (outside the classroom) with question and answer practices in the classroom.	4.83	.06
16. I can understand whether students have learned the subject or not with classroom practices.	4.93	.04
17. I can use student-centered learning methods that include in-class interactive activities.	4.74	.07
18. I can give instant feedback to every student in the applications made in the classroom environment.	4.61	.11
19. I can download the files I need from the Internet.	4.83	.08
20. I know what I need to be careful about copyrights on the Internet.	4.12	.17
21. I can prepare course materials using programs such as Word, Excel, Power Point.	4.51	.15
22. I can use interactive whiteboards efficiently in classrooms.	4.09	.19
23 I pay attention to the accuracy/reliability of the information I obtain from the internet.	4.80	.07
24. I can make changes to electronic materials that I download from the Internet.	4.16	.18
25. I can include activities that measure students' prior knowledge in the classroom.	4.58	.11
26. I can identify students' mislearning with different assessment methods.	4.54	.12
27. I can prepare activities that help students correct their mislearning.	4.67	.11
Sum	4.51	.09

The general average score of teachers' self-efficacy perception level in flipped learning was determined as 4.51. This finding can be interpreted as teachers' self-efficacy perceptions in flipped learning are high. The average score corresponds to the "*Absolutely Appropriate*" level in the scale. Moreover, it was seen that teachers mostly displayed the behavior of "*I can understand whether the students learn the subject through classroom practices*.", which is included in I16 ($\bar{X}$ = 4.93), the behavior of "*I can understand whether students watch lecture videos at home (outside the classroom) through question and answer applications in the classroom*.", which is included in I15 ($\bar{X}$= 4.83) and the behavior of "*I can download the files I need from the internet*.", which is included in I19 ($\bar{X}$=4.83). The level of participation with these items corresponds to the level of "*Absolutely Appropriate*" in the scale.

It was also seen that teachers at least displayed the behavior of "*I can provide training that students can actively use computer, internet, online networks, etc.*", which is included in I11 ($\bar{X}$ = 3.90) and the behavior of "*I can use technological tools at a level to prepare lecture videos*.", which is included in I7($\bar{X}$=4.03). The level of participation with these items corresponds to the level of "*Appropriate*" in the scale.

Findings Related to Second Sub-Problem

In the second sub-problem of the study, the themes formed based on the answers they gave to the question "*What do you think about the place of technology in education?*" In order to learn the opinions of the lecturers in the study group about their self-efficacy perceptions in flipped learning are as follows.

Table 3. Lecturers Views on the Place of Technology in Education

Theme: The Place of Technology in Education(N=10)			
Sub-Theme	**Codes**	**f**	**%**
Learning	Should be used permanently	**4**	**16**
	Facilitating access to information	**4**	**16**
	Promoting learning	**3**	**12**
	Facilitating learning	**3**	**12**
	Time saving	**3**	**12**
	Promoting learner needs	**2**	**8**
	Appropriate for individual differences	**2**	**8**
	Appropriate for multiple intelligences	**1**	**4**
	Promoting autonomous learning	**1**	**4**
	Promoting language skills	**1**	**4**
	Promoting 21st century skills	**1**	**4**
	Sum	**25**	**100**
Sub-theme	**Codes**	**f**	**%**
Motivation	Motivating	**3**	**37**
	Promoting professional development	**2**	**25**
	Overcoming prejudice	**1**	**13**
	Learner engagement	**1**	**13**
	Intriguing	**1**	**13**
	Sum	**8**	**100**

When Table 3 is examined, it is seen that the views of the lecturers in the study group about the place of technology in education are gathered around 2 (two) sub-themes which are "*Learning*" (f=25) and "*Motivation*" (f=8).

According to the table, the code with the highest density was "*Should be used permanently*" (f = 4). This is followed by "*Facilitating access to information*" (f = 4) code. Other codes were found as "*promoting learning*" (f = 3) and "*Facilitating learning*" (f = 3), respectively.

The code in which lecturers' views about the place of technology in education was at high level in "*Should be used permanently*" (f = 4). For example;

"*The effect and importance of technology, which is at the center of our lives, on education is inevitable. Its importance for both us teachers and students cannot be denied. We are in the age of technology and many educators started using it because of online education obligation. In my opinion, it shouldn't have been like that. In other words, technology should always be helped, not compulsory.*"(F,3). "*I believe that its place and importance has increased, especially since the transition to internet-based education. Teaching English is already required using technology relatively more than other teaching branches. Since this pandemic period requires the use of internet-based listening / reading / writing activities, I think technology enables education to be more long-lasting and permanent.*"(F,4). "*I think it is an essential element in the future.*"(F,5). "*Technology is like an integral part of education. When there is more progressive teacher or classroom environment, the more technology is used in that classroom. Technology supports, facilitates and enriches education. In addition, it makes it easier to adapt more to the skills of the present (critical thinking, creativity, collaboration and communication) and to develop both the teacher and the student in a good way.*"(F,6).

The instructors also stated that technology "*Facilitates access to information*" (f = 4). For example;

"*Its ability to save time, access resources quickly and effectively, and provide customized / individualized learning/teaching opportunities (if used well) can contribute a lot to education.*"(M,1). "*The best feature for me is that it saves time. In the simplest way, I can create input for students in a shorter time with the help of technology, instead of explaining the subject by writing on the blackboard. Apart from that, both we teachers and students are in the endless world of knowledge. We can access information with a click.*"(F,3). "*As an educator, it contributes to the enrichment of my content (activity, lesson plan, homework, worksheets) by reaching existing resources faster and easier.*"(F,7). "Contributing to my course management in terms of speed and time and accessing as many additional and reliable resources as possible." (F,8).

The themes formed based on the answers they gave to the question "*Can you explain your aims of using technological tools in the learning environment?*" directed to the lecturers are as follows.

Table 4. Lecturers Views on Purposes of Using Technological Tools

Theme: Purposes of Using Technological Tools in Learning Environmen (N=10)			
Sub-theme	**Codes**	**f**	**%**
Teaching-Learning Process	Creating real life situations	**3**	**14**
	Using audio / visual tools	**3**	**14**
	Assessment and evaluation	**2**	**8**
	Giving feedback to the teacher	**2**	**8**
	Promoting game-based learning	**2**	**8**
	Visualizing	**2**	**8**
	Instant feedback	**1**	**4**
	Summing up the topic	**1**	**4**
	Activities to reinforce learning	**1**	**4**
	Concretization the culture of the target language	**1**	**4**
	Preparation for the lesson		
	Example diversity	**1**	**4**
	Out of class learning	**1**	**4**
	Improving the learning and teaching process	**1**	**4**
	Accessing reliable sources	**1**	**4**
	Group works	**1**	**4**
		1	**4**
	Sum	**24**	**100**
Sub-theme	**Codes**	**f**	**%**
Motivation	Drawing attention	**4**	**50**
	Entertainment	**3**	**37**
	Addressing Generation Z	**1**	**13**
	Sum	**8**	**100**

When Table 4 is examined, it is seen that the views of the lecturers in the study group about purposes of using technological tools in learning environment are gathered around 2 (two) sub-themes which are "*Teaching-Learning Process*" (f=24) and "*Motivation*" (f=8).

According to the table, the code with the highest density was "*Drawing attention*" (f = 4). This is followed by "*Creating real life situations*" (f = 3) code. Other codes were found as "*Entertainment*" (f = 3) and "*Using audio/visual tools*" (f = 3), respectively.

The code in which lecturers' views about the purposes of using technological tools in learning environment were concentrated was "*Drawing attention*" (f = 4). For example;

"*Making the lessons interesting is one of my goals.*" (F,1). "*Learning and teaching is a process. Making this process efficient is possible by ensuring that learning takes place under the best conditions. The use of technological tools makes the learning process more enjoyable and more attractive.*" (F,4). "*The first of my goals is to attract students' attention."(F,5). "I use PowerPoint presentations in my lessons as much as I can, both for visualizing purposes and to attract students' attention and summarize the subject.*" (F,7).

The instructors also stated that their purposes of using technological tools to "*Create real life situations*" (f = 3). For example;

"*In foreign language teaching, it is very difficult to transfer materials for the four skills to the classroom environment with classical methods and even the best teacher can hardly achieve this. You can recreate the language as it is used in real life in the classroom only with technological possibilities. In a learning environment whose purpose is limited to language, recreating the language with movies, music and other audio / visual tools seems to be the only way to embody the culture in which the language is spoken to the student.*" (M,1). "*The exercises created before and after the lesson make the learning process relatively more successful as it also connects with daily life.*" (F,4). "*My primary goal is to transfer and adapt materials such as movies, music, pictures, which are generally used for entertainment purposes, into the educational environment. Thanks to the editing tools, I can quickly convert authentic material into learning material. This helps me to demonstrate its real-life use in language learning.*" (M,2).

The themes formed based on the answers they gave to the question "*What criteria do you consider when creating technology-supported learning material? (What do you pay attention to?)*" directed to the lecturers are as follows.

Table 5. Lecturers Views on Criteria for Creating Material

Theme: Criteria considered when creating technology-supported learning material (N=10)			
Sub-theme	**Codes**	**f**	**%**
Instructional	Fitness for purpose	**7**	**23**
	To be clear	**4**	**13**
	Fitness for learner needs	**4**	**13**
	Giving feedback	**2**	**7**
	Giving instant feedback	**2**	**7**
	Ethical rules	**1**	**3**
	Activating the learner	**1**	**3**
	Appropriate for multiple intelligences	**1**	**3**
	Promoting productive activities	**1**	**3**
	Appropriate for different learning styles	**1**	**3**
	Content oriented	**1**	**3**
	Teaching method and technique	**1**	**3**
	Creating context	**1**	**3**
	Deadline	**1**	**3**
	Instructions	**1**	**3**
	Student level	**1**	**3**
	Sum	**30**	**100**
Sub-theme	**Codes**	**f**	**%**
Motivational	To be interesting	**5**	**50**
	To be intriguing	**3**	**30**
	Learner interest	**1**	**10**
	Entertaining	**1**	**10**
	Sum	**10**	**100**
Sub-theme	**Codes**	**f**	**%**
Technical	Reusability	**3**	**30**
	Picture and sound quality	**2**	**20**

Easy to use	**1**	**10**
Material face	**1**	**10**
Not being too long	**1**	**10**
File format	**1**	**10**
Mastery of tool	**1**	**10**
Sum	**10**	**100**

When Table 5 is examined, it is seen that the views of the lecturers in the study group about criteria for technology-supported learning materials are gathered around 3 (three) sub-themes which are "Instructional" (f=30), "Motivational" (f=10) and "Technical" (f=10).

According to the table, the code with the highest consistency was "*Fitness for purpose*" (f = 7). This is followed by "*To be interesting*" (f = 5) code. Other codes were found as "*To be clear*" (f = 4) and "*Fitness for learner needs*" (f = 4), respectively.

The code in which lecturers' views about the criteria considered when creating technology-supported learning material were concentrated was "Fitness for purpose" (f = 7). For example;

"*First of all, it must serve the purpose of my lesson.*"(F,2). "*Even if it is a material prepared in another environment, does it meet the learning and teaching purposes? Is it relevant and sufficient? In other words, does the student achieve the goal I want after using this material?*" (F,3). "*While creating the material, I first evaluate the purpose. I determine for what purpose (grammar / vocabulary learning / speaking activity / reading practice etc.)the material will be used*"(F,4). "*While creating material, the subject of my focus is very important. If I am preparing a speaking activity for that lesson, I will prepare a speaking activity on the targeted topic; Writing activity, I create activities for the implementation of the subject that is aimed to be developed.*"(F,6). "*The important factor for me when creating my materials is that it is suitable for my students' level (language proficiency), language learning aims (goals) and needs.*" (F,7).

The instructors also stated for criteria "*To be interesting*" (f = 5). For example;

"*I want the students to complete the task given with the required method in the context that will attract the students the most.*"(F,4). "*I use tools that I think might be of interest to my students so that the material does not bore the student and leaves a good impression while including them in that activity.*" (F,6).

The themes formed based on the answers they gave to the question "*Do you consider yourself sufficient in using technology in the flipped learning process? Could you explain with the reasons?*" directed to the lecturers are as follows.

Table 6. Lecturers Views on Self-Efficacy

Theme: Self efficacy in technology use and its justifications (N=10)			
Sub-themes	**Codes**	**f**	**%**
Yes	Attended conferences	**3**	**14**
	Attended workshops	**1**	**4.5**
	Received trainings	**1**	**4.5**
	Researches	**1**	**4.5**
	Experience	**1**	**4.5**
	Quick adaptation	**1**	**4.5**
	Openness to new technologies	**1**	**4.5**
	Having a positive attitude	**1**	**4.5**
	Seeing achievement of goals	**1**	**4.5**
	To be able to access to information	**1**	**4.5**
	To be able to guide students	**1**	**4.5**
	Using technology actively	**1**	**4.5**
No	Continuous learning	**3**	**14**
	Technical incompetence	**2**	**9**
	Lack of hardware	**1**	**4.5**
	Lack of institutional support	**1**	**4.5**
	Feeling insecure	**1**	**4.5**
	Sum	**22**	**100**

When Table 6 is examined, it is seen that the views of the lecturers in the study group about self-efficacy in technology use and its justifications are gathered around 2 (two) sub-themes.

According to the table, the code with the highest consistency was "*Attended conferences*" (f = 3). This is followed by "Continuous learning" (f = 3) code and "*Technical incompetence*" (f = 2), respectively.

The code in which lecturers' views about self-efficacy and its justifications were concentrated was "*Attended conferences*" (f = 3). For example;

"*Technology is a very fast and developing phenomenon, in this direction, yes, I consider myself sufficient as long as I can adapt to these developments and changes. The trainings I received, my hands-on experience, the conferences I attended, and being in touch with technology from an early age.*"(F,1). "*The biggest reason I consider myself competent is that I am doing research on this subject and I have received great help from technology during my student years. Examples are the online conferences and workshops I attended.*"(F,7).

The instructors also stated for self-efficacy and its justifications "*Continuous learning*" (f = 3). For example;

"*Yes, I consider myself adequate in terms of encouraging the student to explore individual learning alternatives and presenting examples of them, but ultimately if you consider all the possibilities the internet provides, I think we all need to keep ourselves in a constant learning mood.*"(M,1). "*Although I consider myself competent in using technology for the flipped learning process, I am aware*

that I always have to add more to myself. For this reason, I believe there is more to learn. I think that since technology is not a matter of course, I should constantly update myself on this issue."(F,7).

DISCUSSION and CONCLUSION

The research aimed at examining the self-efficacy levels of lecturers on flipped classroom. As a result of this research, it was concluded that lecturers' self-efficacy levels are at a high level. In addition, the results obtained from the analysis of qualitative data support this finding. According to these findings, it can be said that the self-efficacy perceptions of the instructors are at a high level. Particularly, as expressed in the qualitative findings of the research, the studies of lecturers on professional development may have supported high levels of self-efficacy in the flipped teaching process. In the literature, within the knowledge of the researcher, there is no other study examining the effect of the university-level English preparatory program on the perception of self-efficacy of lecturers in flipped learning. According to the findings, it can be said that the perceptions of flipped learning self-efficacy of lecturers are high in the dimensions of classroom management and material preparation. Moreover, it can be also said that the perceptions of flipped learning self-efficacy of lecturers are at a medium level in technology guidance and lecture video preparation sub-theme. It was observed that the lecturers took into account the students' interests, needs, attention, suitability of the material to the goals of the course and its quality while preparing technology-supported material. Miller (2012) also emphasized that it is very important to design the platform prepared while implementing FC applications according to student and teaching needs, and this situation directly affects the success in the process. Furthermore, Yeşilpınar and Doganay (2018), in their study with university students, stated that student-centered approaches are an important factor in increasing academic achievement, but when choosing a strategy, method and technique for the realization and evaluation of a teaching process in line with the objectives; It is suggested that content, assessment tool and individual characteristics of students should be analyzed. Similarly, the lecturers applying the model organize the teaching process by considering the individual differences of the content and students. Confirmatory findings were also reached by other researchers who investigated the inverted classroom model (Koroglu & Cakır, 2017; Li & Suwanthep, 2017; Roth & Suppasetseree, 2016). On the other hand, it was concluded that the lecturers used digital materials for different purposes. These purposes can be listed as drawing attention, creating real life situations, entertainment, assessment and evaluation, and feedback. This result is in line with Celik, Yıldırım and Yıldırım's (2018) findings. Additionally, considering that the self-efficacy beliefs and attitudes developed by lecturers influence their acts and teaching performances (Li, 1999; Osborne, Simon & Collins, 2003), it can be seen that the flipped classroom model could make positive contributions to the professional achievements of lecturers. As the self-efficacy perceptions of lecturers improve, they are able to practice their activities more confidently, organize what they can do, communicate efficiently and strive to be successful (Benzer, 2011).

Today, lecturers and students spend most of their out-of-school time with technology and learn in an artificial classroom that is free of technology. When they come to school, forcing them to study in an artificial environment, detaches themselves from their realities. That's why technology should be properly integrated into education according to the lecturers' opinions. The blending of developing technologies and teaching methods with these technologies are both interesting for students and create opportunities for them to use the knowledge they have learned in their own lives. With this understanding, there should be a transition from existing traditional methods to learner-centered methods. When choosing a teaching method, students should be perceived as individuals, not as a whole. Since the learning speed and deficiencies of each student will be different, when choosing a teaching method, students should be perceived individually and the method should be arranged according to the student's pace and deficiencies. At this stage, the increasing interest of teachers in the new methods brought by the age with technology and the application of methods that include the human element of technology such as the flipped classroom increases its importance. In the flipped classroom, while the teacher is generally responsible for the lesson planning stage, it is the students who manage the actual process; thus, this increases students' self-confidence. Teachers are recommended to help students develop confidence in language learning, as it enables students to learn and communicate more independently (Cakıcı, 2015).

On the other hand, when we consider student attitude, Kazazoglu (2011) stated that attitude is not an innate characteristic and those negative attitudes can be changed by effective methods that teachers will use in the educational environment. Students' attitude towards the lesson depends on not one but more than one variable. Many factors such as the attitude of the student towards the teacher, the teacher's attitude towards the student, classroom activities, out-of-class tasks, and teaching method can affect the student's attitude. Within the scope of the flipped classroom, the ability of the teacher to give instant feedback to the students and not to overwhelm the students with homework can increase the communication between the teacher and the student by doing the activities in the classroom. The ability of the lecturer to communicate with students instantly through technology can also increase the targeted education quality. Professional educators are in the foreground and important with the flipped classroom compared to traditional classes. These instructors observe students throughout the lesson, evaluate their work, and give them instant feedback. At the same time, they are in constant communication with students outside of the classroom. Although their responsibilities seem to have decreased with this model, they are excessive and open to criticism.

Meanwhile, the variable factors, which contributed to lecturers' self-efficacy, have been always discussed. Usually, all the factors discussed were a cognitive factor of self-efficacy and technology integration (Coknaz & Aktag, 2017). Therefore, for future studies, it is needed to clarify affective factors between self-efficacy and flipped classroom or technology usage. Furthermore, the self-efficacy perceptions of the instructors in the flipped classroom can be examined in terms of various variables.

Based on this research data, the following can be stated for implications for practice;

- School administrations can organize in-service training programs to contribute to teachers' self-efficacy. Teacher reluctance is cited as the main barrier to successful technology implementation (Durrant & Green, 2007). Therefore, a reward and reinforcement system can be established in order to develop a positive attitude in lecturers.
- For in-class applications, lecturers with high self-efficacy, or lecturers experienced in this field (who have previously received this training) can be instructors to train other lecturers. Indirect experiences are the second most powerful source of self-efficacy (Bandura, 1997). When teachers see that their colleagues are successful in applying new technologies in their classrooms, they will begin to gain self-efficacy in their ability to do so. The ability to have a coach who can assist a teacher with any technical problem while applying a new technology will be a motivation to try something new (Tweed, 2013, p. 84).
- Training for different flipped classroom applications can be given for each language skill. Preparatory schools usually have different lessons for each skill. Also, different lecturers take these courses. Therefore, along with a general training, training for skill lessons such as Listening & Speaking and Reading & Writing will also contribute to the more effective course.

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INVESTIGATION OF PARENTS' VIEWS ON THE DISTANCE EDUCATION PROCESS DURING THE PANDEMIC

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ABSTRACT

This research was conducted to reveal the views of primary school grade 1 students' parents regarding the distance education process during the pandemic. For this purpose, a phenomenological design, one of the qualitative research approaches, was employed. The research was carried out with the parents of 12 primary school students studying in public schools in Adana. In the study, a criterion sampling type was chosen from purposeful sampling methods. The data were collected online using a semi-structured form and analyzed using a descriptive analysis method. Within the scope of the research findings, it was concluded that students experienced adaptation problems during the distance education process, parents were ignored by the students, this process caused health problems, and led to inequality of opportunity. In contrast, it was determined that this process created sincere relationships, and they had an opportunity to get to know their children closely. They stated that equal opportunities should be provided to students regarding this process, the infrastructure of EBA should be improved, and effective audio and video opportunities should be provided.

Keywords: Covid-19; pandemic; distance education; parent; views

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PANDEMİ SÜRECİNDE VELİLERİN UZAKTAN EĞİTİM SÜRECİNE İLİŞKİN GÖRÜŞLERİNİN İNCELENMESİ

ÖZET

Bu araştırma pandemi sürecinde ilkokul 1. sınıf velilerinin uzaktan eğitim sürecine ilişkin görüşlerini ortaya çıkarmak amacıyla yapılmıştır. Bu amaçla nitel araştırma yaklaşımlarından fenomenolojik desenden yararlanılmıştır. Araştırma Adana ilinde devlet okullarında öğrenim gören 12 ilkokul öğrenci velisi ile gerçekleştirilmiştir. Çalışmada amaçlı örnekleme yöntemlerinden ölçüt örneklemesi türü seçilmiştir. Araştırmadaki veriler online ortamda yarı yapılandırılmış form ile toplanmıştır. Elde edilen veriler betimsel analiz yöntemiyle çözümlenmiştir. Araştırma bulguları kapsamında uzaktan eğitim sürecinde öğrenciler uyum sorunu yaşadıkları, ebevyn olarak önemsenmediklerini, bu sürecin sağlık sorunları oluşturduğu ve fırsat eşitsizliği yarattığı sonucuna ulaşılmıştır. Buna karşın bu sürecin samimi ilişkiler oluşturduğu ve ve öğrencilerini yakından tanıma fırsatı buldukları belirlenmiştir. Bu sürece ilişkin öğrencilere eşit imkanlar sunulması gerektiğini, Eba altyapınsın geliştirilmesi ve etkili ses ve görüntü imkanının sunulması gerektiğini ifade etmişlerdir.

Anahtar Kelimeler: Covid-19; pandemic; uzaktan eğitim; veli; görüşler

INTRODUCTION

When we look into world history, humanity has struggled with epidemic diseases in various periods. One of them was the Covid-19 virus, which was identified in mid-December 2019 that caused severe respiratory syndromes. The World Health Organization declared a global pandemic because of this virus, which spread throughout the world with an unprecedented speed (T.C Sağlık Bakanlığı, 2020). Epidemic periods affect not only the health sector but also many other sectors.

The effects of this ongoing pandemic process in our country, which has been closely monitoring the situation with the occurrence of Covid-19 cases throughout the world, were felt in the field of education as in all other fields, when the first case was seen on March 11.2020 In order to reduce the contagion rate, the authorities took quick and radical decisions and suspended face-to-face education. The fact that Turkey has a young structure and a total of 25 million students, including 16.5 million students in primary and secondary schools (UNESCO, 2020b), reveals the importance of the measures taken in the field of education during the outbreak. In this context, our and we schools started conducting distance education activities in primary and secondary schools on March 23, 2020 (MEB, 2020). Along with the measures taken to suspend face-to-face education, it was aimed for individuals to keep in touch by avoiding physical contact and containing the outbreak. By switching to distance education, it was attempted to control the physical contact of students (Vallance, 2020).

Societies have redesigned their education systems according to changing conditions and needs throughout history. This change has evolved into different dimensions in the process of obligatory needs

as well as with scientific and technological developments (Yıldız, 2006, p. 302). In this process, ıt can be said that that the most appropriate method in terms of responding to the needs of the period is distance education. Distance education could be described as a system approach that can bring different learning environments together and present interrelated parts as a whole (Moore & Kearsley, 2011). Although distance education has been a method used in the past periods, it has become functional all over the world. Distance education has some advantages and disadvantages. Its positive aspects such as providing an educational environment for individuals with disabilities, reaching large masses, providing educational opportunities at an individualized pace, and offering students repetition opportunities stand out the most. Contrarily, difficulty in preparing the course content, students' discipline issues, and investment and infrastructural issues are among its advantages (Altıparmak, Kurt, & Kapıdere, 2011).

In this process, the preexisting EBA (Education Information Network) infrastructure and content were enriched and offered to primary, secondary, and high school students (MEB, 2020). In addition, for students having difficulties with the internet and computers, educational broadcasts were provided over three TV channels. In addition, Zoom, one of the lesson tools that enable teachers to teach their students (Degges-White, 2020; Wiederhold, 2020), was actively utilized by teachers, parents, and school administrations.

Considering the literature on distance education (Çoruk & Çakır, 2017; Karaman & Akgül, 2015; Kumalar & Pürtaş, 2012), distance education is complementary to face-to-face education whose importance will grow in the future. Although distance education studies have been conducted at university levels, there are an insufficient number of studies examining this subject at primary school levels (Simonson et al., 2019; Allen & Seaman, 2005). Transition to distance education within the scope of the measures taken in this period also affected the parents considerably (Kırmızıgül, 2020). Since the educational environment was home, students spent more time with their families, causing a change in classical parental roles (Bozkurt et al., 2020). Although students of all levels experienced challenges in adapting to distance education processes, the biggest challenge was experienced by the first-year students who switched to distance education without ever seeing the school environment. In this context, it is important to reveal the experiences of the parents of students attending the first grade in distance education processes. It is of great significance to reveal the views of parents, who had the opportunity to closely monitor all stages of education during the distance education and were a component of this process both about the effectiveness of the current situation and in terms of revealing its shortcomings. Therefore, this study will be significant considering the limited number of studies exploring the views of parents on the outbreak in the literature to present an idea to decision-makers. In this context, it was aimed to examine the views of parents on distance education during the pandemic.

The Main Research Question

What are the views of the first grade students' parents on distance education process during the pandemic?

Sub-Research Questions

1. How did the distance education process affect student-parent communication?
2. What are the views of parents on the positive/negative effects of technology on the education process during distance education?
3. What are the views of parents on problems experienced during distance education and their suggestive solutions?

METHOD

This study was conducted to determine whether there were differences in educational experiences of primary school grade 1 students' parents during the Covid-19 outbreak and what these differences were if any. Therefore, qualitative research was used, as it enables revealing perceptions, being sensitive to the natural environment, having flexibility in the research design, and performing inductive analysis with qualitative data. In line with the purpose of the study, phenomenology, one of the qualitative research designs, was employed. The phenomenological research design, which is preferred to explain the views and experiences of individuals, focuses on the phenomena that we are aware of but we do not have an in-depth and detailed understanding (Yıldırım & Şimşek, 2008).

Study Group

The study was conducted with 12 parents in the 2020-2021 academic year. The depth and the extensiveness of the data considered to be collected in qualitative studies are inversely proportional to the sample size. Working with a large number of individuals is not healthy because of the peculiarity of information collection and analysis methods, the amount of data, and the limited resources (Yıldırım & Şimşek, 2008). The participants consist of 12 parents, eight men and four women. Of purposive sampling methods, a criterion sampling method was chosen. Criterion sampling is used when the study group consists of people, events, objects, or situations with desired characteristics related to the problem under study (Büyüköztürk et al., 2012). The purpose of this sampling method is to work with study groups that meet the criteria created by the researcher or created previously (Yıldırım & Şimşek, 2008). When determining the participants, the main criterion was to have grade 1 students attending distance education during the pandemic. In order to collect effective data, information collected from volunteer parents attending distance education was included. As a result of the selection, interviews were conducted with 12 parents. The participants were coded as P1, P2… P12. Information regarding the participating parents is presented in Table 1.

Table 1. Information on Study Participants

Code	Age	Gender	Education
P1	38	Female	Primary School
P2	42	Female	University
P3	37	Male	High School
P4	39	Female	High School
P5	43	Female	Secondary School
P6	40	Female	University
P7	41	Male	High School
P8	35	Female	Secondary School
P9	37	Female	University
P10	44	Male	University
P11	36	Female	High School
P12	39	Male	Primary School

Data Collection Tool

Main and alternative questions on the subject were prepared in the study to determine the views of parents on the experiences they had during the pandemic period distance education processes of students who had started the primary school grade 1 in the 2020-2021 academic year. A semi-structured interview form was used in the study. In order to prepare the semi-structured interview form, the existing literature related to the subject and the interviews with the subject experts were used. The main data collection tool in phenomenological studies is interview. To reveal the experiences and meanings related to the phenomena, it is necessary to use the study features through the interaction and flexibility offered by the interview to the researchers (Yıldırım & Şimşek, 2008). The semi-structured interview form consists of two sections. In the first section, there are questions about the personal information of the interviewed participants. In the second part, there are questions to determine the views of the parents of primary school grade 1 students about their experiences during the distance education process. Responses to the questions in the interview form were collected through Zoom. During the preparation of these questions, preliminary interviews were held with teachers and parents and opinions were obtained from two content experts.

Data Analysis

Online interviews were conducted with parents via Zoom using the questions in the interview form in the study. Information collected from the interview form was analyzed using a content analysis method. In the content analysis method, the main sections of all the collected data are determined, their

conceptual meanings are found, and coding is performed for the sections that are formed (Yıldırım & Şimşek, 2018). In qualitative studies, after the data prepared for analysis are brought together, the collected data are analyzed, codes are created, and these codes are put into tables (Creswell, 2013). The collected audio and video recordings were transcribed by the researcher without interfering and the codes were then created. As a result of the analysis, codes were created and codes expressing the same ideas were combined under specific themes. As a result of the analysis, the frequencies of the codes were revealed and the findings were presented by associating them with the sub-research questions. In addition, the views expressed by the participants during the study were supported by quotations.

Validity and Reliability in the Study

Validity and reliability are of great significance in studies. In this context, the reliability of categories created through coding was calculated using the reliability formula of Miles and Huberman (2016). Interview recordings prepared for each parent were transcribed and codes were created by the researcher. Then, the generated data were sent to another domain expert who coded them independently. The expert and the researcher examined each response one by one during the meetings they held via zoom. After this process, a consensus was reached between the researcher and the expert, and the analyzed data were finalized. After determining the number of "Agreements" and "Disagreements" from the researcher and expert, the reliability coefficient was calculated by dividing the number of agreements by the sum of agreements and disagreements and multiplying it by 100. The computed value should be at least 0.80 (Miles & Huberman, 2016). At the end of this process, the reliability coefficient was 0.92, showing high inter-coder reliability between the researcher and the expert. In the findings sections, the views of the participating parents are presented with the method of direct quotation.

FINDINGS

Parent Views on Student-Parent Communication during Distance Education

The views of parents on student-parent communication throughout the distance education during the pandemic are presented in Table 2.

Table 2. Student-Parent Communication during Distance Education

Themes	Codes	Frequency (N)
Positive Effects	Establishment of an effective communication environment	8
	Development of an educational environment	7
	Opportunity for one-to-one paying of attention	10
	Opportunity to get to know students closely	9
	Formation of sincere relationships	6

Negative Effects	Adaptation Issues	7
	Student Dissatisfaction	6
	Getting neglected as a parent	9
	Formation of future anxiety	5
	Getting inadequate education	5
	Being unable to be motivated	6
	Formation of an inefficient learning process	7

Table 2 shows that the views of parents about student-parent communication during the pandemic are categorized under two themes of positive and negative effects. Under the theme of positive effects, eight parents expressed their views as "Establishment of an effective communication environment", seven as "Development of an educational environment", ten as "Opportunity for one-to-one paying of attention", nine as "Opportunity to get to know students closely", and six as "Formation of sincere relationships". Under the theme of negative effects, seven parents expressed their views as "Adaptation issues", six as "Student dissatisfaction", nine as "Getting neglected as parents", five as "Formation of future anxiety", five as "Getting inadequate education", six as "Being unable to be motivated", and seven as "Formation of an inefficient learning process". Below are some views on parent-student communication:

"I never knew about my children's conditions and how much they had progressed in their lessons. In this process, I had the opportunity to spend a lot of time with my kid. I closely observed what my kid liked and disliked. I feel the bond between us has become stronger." (P3)

"I think I have lost my motherhood spirit. My kid and I were quarrelling with each other. Normally, my kid used to listen to me, but in this period, he started ignoring me, which makes very upset." (P5)

"My child couldn't get used to this process. She always complains and doesn't want to attend the class. At start, we used to do it together. Then, when I left her alone, she used to get angry when she couldn't do it and closed her door and cried. Generally, we are not satisfied at all." (P7)

The views of parents on positive/negative effects of technology on education in distance education process during the pandemic are presented in Table 3.

Table 3. Parent Views on the Effect of Technology on Education Process during the Distance Education

Themes	**Codes**	**Frequency (N)**
Effective Technology Utilization	Acquiring technology utilization skills	8
	Acquiring research skills	7
	Embracing technology-supported education environments	9
	Offering an opportunity to repeat the subject matter	10

	Being unable to attend the class	8
Negative	Not providing socialization opportunities	9
Effects of	Causing health problems	7
Technology	Having physical adverse effects	6
	Leading to inequality of opportunity	11

When Table 3 is examined, parent views on the effect of technology on the education process in distance education are categorized under two themes, Effective Technology Utilization and Negative Effects of Technology. Under the theme of effective technology utilization, eight parents expressed their opinions as "acquiring technology utilization skills", seven as "acquiring research skills", nine as "embracing technology-supported education environments", and ten as "offering an opportunity to repeat the subject matter". However, under the theme of negative effects of technology, eight parents expressed their opinions as "being unable to attend the class", nine as "not providing socialization opportunities", and eleven as "leading to inequality of opportunity".

"My child has learned to use computers. I think it turned out very well. My child does research. For example, she was interested in something about space and researched it on the computer, which I liked a lot." (P1)

"My child gets very bored at home. I think this period had a negative effect on socialization. Even in the two days that he goes to school, he misses playing games at recess." (K4)

"In this period, severe problems started appearing in my daughter's eyes. There was no problem in my daughter's eyes when we went for a checkup six months ago. They gave her glasses because her eyes were damaged from looking at the tablet and computer for a long time." (K11)

Table 4 presents the major problems experienced by parents in the distance education process from parents' perspectives.

Table 4. Majors Problems Experienced in the Distance Education Process

Themes	**Codes**	**Frequency (N)**
	Teachers' not using technology	8
Major	Shortage of technological tools	9
Problems	Internet access	11
	Inadequate internet infrastructure	10
	Not getting effective feedback on homework	6
Suggestive	Equal opportunities should be provided for students	12

Solutions	Virtual classroom environments should be established	5
	Classrooms should not be crowded	7
	Effective audio and video opportunities should be provided	8
	The EBA infrastructure should be improved	9
	The teacher should be authoritarian	5

When Table 4 is examined, the major problems experienced by parents during the distance education process and their suggestive solutions are reported under two themes, namely Major Problems and Suggestive Solutions. Under the theme of major problems, eight parents expressed their opinions as "teachers' not using technology", eleven as "internet access", ten as "inadequate internet infrastructure", and six as "not getting effective feedback on homework". However, under the theme of suggestive solutions, twelve parents expressed their opinions as "equal opportunities should be provided for students", seven as "virtual classrooms should be established", eight as "effective audio and video opportunities should be provided", nine as "the EBA infrastructure should be improved", and five as "the teacher should be authoritarian".

"Our teacher did not know how to share the screen. It was a big problem for us. We lost a lot of time. Also, our teacher did not know how erase the screen. The kids used to constantly scribble on the screen." (P8)

"There was only an old computer in our house. Its camera was broken down. Therefore, the teacher didn't see my daughter for a whole semester. Even the teacher told I see you for my daughter not to get upset. Now I bought a new tablet, and my daughter became the first in the EBA ranking." (P12)

"There are many people in an economically desperate situation. I applied to the municipality and the neighborhood representative but I couldn't get a tablet anywhere. We had no tablet at first and had a hard time. Some students even don't have it now. I think they should give it to those in bad conditions right away." (P4)

"I think the distance education should be improved. For example, there could be virtual classroom environments. There could be holograms. They are very costly but I think technology advances continuously." (K10)

DISCUSSION AND CONCLUSION

In this study, which was conducted to reveal the views of grade 1 students' parents during distance education, the parents' views were expressed under three questions and six themes. The parent-student interaction in the distance education process gathered under two headings of positive and negative effects. In this process, the most important impact was the opportunity for one-to-one paying of attention.

In this period, parents had the opportunity to get to know their children more closely. In addition, sincere relationships were established between the students and parents. From the parents' perspectives, an effective learning environment was established. In contrast to this positive interaction, there were also several problems. Suspending face-to-face education and switching to distance education created significant problems for students, teachers, and parents (Chang & Satako, 2020). When student-parent communication is examined in terms of its negative effects, parents seem to have lost their authority over their children. The parents stated that they were taken less seriously by the students. Students who stay away from schools designed for education during the pandemic try to overcome their deficiencies with the help of their parents (OECD, 2020A; OECD, 2020b). One of the important pillars of education is its teacher-parent aspect, which is very important in the distance education process as in face-to-face education (Murray, 2009). In addition, from parents' perspectives, students failed to be motivated and experienced problems in terms of adapting to the lessons. Motivation is emphasized as an essential element in the distance education process (Hobson & Puruhito, 2018). In this context, there are also studies reporting students' unwillingness to attend the classes and experiencing adaptation problems in the distance education process (Bakioğlu & Çevik, 2020). In addition, parents stated that students could not receive adequate education whereby they were concerned about students' future. Also, distance education created an inefficient learning environment compared to face-to-face education.

Under the positive effects dimension, it was stated that the use of technology in distance education positively affected students' technology utilization skills, and as result, their research skills improved. Distance education is a teaching method that can be implemented without time and space constraints. It was stated that students embraced technology-supported environments by adapting to them. Apart from that, research shows that conducting activities as a class during the distance education motivates students (Çakın & Akyavuz, 2020). It is stated that there is no opportunity to repeat a subject in face-to-face education, but the opportunity to watch it repeatedly as much as wanted in the distance education process is appraised positively from students' perspectives (Moore & Kearsley, 2011).

When the negative effects of technology were examined, the most expressed view was the inequality of opportunities it created in education. Most of the participants defended the view that education of the students who could not access the technological tools and infrastructure facilities due to their economic conditions was negatively affected and this circumstance created an inequality. It was stated that students had big problems in attending classes due to infrastructure facilities. One of the most important tasks of education is socialization. In this context, it was stated that students could not find the opportunity to socialize during the distance education process, and their personal development was negatively affected. In another study related to the socialization issue (Oosterhoff et al., 2020), it is argued that the pandemic process may lead to negative consequences for individuals from a mental perspective.

In addition, it was stated that students who had to sit in front of a computer or tablet for six hours a day experienced some health problems. It was reported that students' regular sleep patterns were disrupted during the pandemic process and health problems occurred due to long hours spent in front of the screen (Ghosh et al., 2020). It was stated that while some students had no problems in their eyes until a few months ago, they had to wear glasses during the distance education process. However, the courses were reportedly canceled due to technical problems and students received an education with shorter class hours. In addition, it was stated that the students could not gain sufficient skills in practicing and practical courses (Visual Arts, Music, Physical Education, and so on) in distance education (Bakioğlu & Çevik, 2020).

When the major problems experienced in this process were examined, the biggest problem was internet access. Particularly, they experienced big problems in accessing the internet and those who had internet access complained of insufficient internet quota. Research studies support that the problems experienced due to internet speed, which is one of the most important stages of the distance education, negatively affect the education (Çığlık & Bayrak, 2015). One of the other critical problems mentioned was the problem of accessing technological tools. It was stated the number and the quality of computers, tablets, and telephones was inadequate. A study on the level of technological tools determined that 26.7% of the available tools in homes were tablets, 37.9% laptops, and 17.6% desktop computers (Tokyay, 2020). In addition, for students to make effective use of distance education, 50% of families need computers (Mutlu et al., 2020). In this context, effective education may not have occurred due to the lack of these tools, which make up the basis of distance education. Similar results were obtained in Baek et al. (2018), in which one of the most important problems of distance education was deprivation. In addition, it was mentioned that teachers were unable to make effective use of technology and did not have a comprehensive knowledge of the course. Teachers should have a grasp of technology and should maintain domination in terms of classroom management (Polat, 2016). Further, it was mentioned that students experienced problems in doing homework, submitting, and obtaining effective feedback. Therefore, the given homework in the distance education process should be checked effectively. Parents see homework as a tool for students to create self-discipline and understand the subject matter better (Ok & Çalışkan, 2019).

In addition, parents found significant shortcomings in technology utilization skills. In the similar studies, it is argued that parents do not have an adequate level of digital literacy skills to guide their children (Anderson, 2020). Another study supporting these parents reported that parents experienced significant problems in learning technology (Obiakor & Adeniran, 2020). Among the suggestive solutions expressed by parents to the problems identified in the current study, the common statement of all parents was that equal opportunities should be provided to the students. To carry out distance education more

effectively, the technology facilities must be developed (Erbil & Kocabaş, 2019). Although ministry has created EBA support rooms, this service may not be sufficient. Apart from that, it was stated that effective audio and video environments should be established for distance education. It was also mentioned that students' establishing communication with their teachers during the class was a factor that increased the quality of the lesson. In addition, it was mentioned that the class size should be smaller in distance education. To increase the quality (Uysal & Kuzu, 2011) and success (Volery & Lord, 2000) of distance education, improving the technological resources is of great significance. It was mentioned that there was no effective communication in crowded classrooms and teachers experienced severe problems in terms of classroom domination. Lastly, it is known that the influence of teachers on the child does not have a very important place. In this context, the teacher should be authoritarian for a child to acquire a study discipline.

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ÖZET

Bu çalışmanın amacı; bireysel spor yapan genç sporcuların akıldışı performans inançlarının yaş, eğitim, spor branşları, deneyim süresi, milli takım deneyimi değişkenleri açısından farklılık olup olmadığı amaçlanmıştır. Çalışmanın örneklemini Ankara ve İstanbul illerindeki spor kulüplerinde yatılı kalıp lisanslı olarak spor yapan 198 ($\bar{x}_{yaş}$; 18.96±3,90) erkek sporcu oluşturmaktadır. Çalışmada Turner ve Allen (2018) tarafından geliştirilen; Türkçe geçerlik ve güvenirliği Urfa ve Aşçı (2018) tarafından yapılan "Akıldışı Performans İnançları Envanteri-2" ve araştırmacılar tarafından oluşturulan "Kişisel Bilgi Formu" tüm katılımcılara uygulanmıştır. Veriler tanımlayıcı istatistik ve Mann-Whitney U kullanılarak analiz edilmiştir. Çalışmanın sonucunda; akıldışı performans inançlarından elde edilen en düşük ortalama değer 3.06 ± 0.71 ile "değersizleştirme" alt boyutunda elde edilirken; en yüksek ortalama değer 3.60 ± 0.85 ile "Düşük Tolerans" puanlarından elde edilmiştir. Araştırmadan elde edilen bulgular doğrultusunda yaş ve eğitim değişkeni açısından talepkarlık alt boyutu puanları açısından; deneyim süresi ve milli olma değişkenleri açısından talepkarlık, felaketleştirme ve toplam puan açısından istatistiksel olarak anlamlı fark bulunmuştur ($p<0.05$). Sonuç olarak, araştırmaya katılan, farklı spor branşlarında yarışan genç sporcuların akıldışı inançları puanlarının kısmen yüksek olduğu söylenebilir. Buna ek olarak elde edilen bulgulardan yola çıkarak sporcuların akıldışı inançlarının farklılık gösterdiği ve sporcuların yaş, eğitim durumu, deneyim süresi ve milli olma deneyiminin akıldışı performans inançlarında değişikliğe yol açtığı söylenebilir.

Anahtar Kelimeler: Akıldışı performans inançları; genç sporcular; psikolojik antrenman

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INVESTIGATION OF IRRATIONAL PERFORMANCE BELİEFS OF YOUNG ATHLETES

ABSTRACT

The purpose of this study was to examine young athletes' irrational performance beliefs and to investigate if there is difference in irrational performance beliefs with regard to age, education, sports branches, experience duration, and national team experience. The study sample consisted of 198 ($\bar{x}_{age}$; 18.96±3.90) male athletes who stay and play sports clubs in Ankara and Istanbul. In this study, "irrational performance beliefs inventory (iPBI)" developed by Turner ve Allen (2018) and the adaptation work of this scale to Turkish was conducted by Urfa and Aşçı (2018) and "Personal Information Form" developed by researchers were admistired to all participants. Data were analyzed by using descriptive statistics and Mann-Whitney U test. Analysis indicated that the lowest mean value was 3.06 ± 0.71 (depreciation sub-dimension) and the highest mean value was 3.60 ± 0.85 (Low Frustration Tolerance sub-dimension). Beside this, there was a statistically significant difference in demandingness scores in terms of age and education variables; in addition, a statistically significant difference was found in terms of experience period and being national athlete variables in terms of demandingness, awfulizing and total score ($p<0.05$). As a result, it can be said that young athletes competing in different sports participating in this study have partially high irrational beliefs scores. In addition, based on the findings obtained, it was found that the irrational beliefs of the athletes differ; It can be said that the age, education level, experience period and experience of being national athlete of the athletes cause changes in their irrational performance beliefs.

Keywords: Irrational performance beliefs; athletes; psychological training; training

GİRİŞ

Günümüz dünyasında ve özellikle Türkiye'de hızla gelişen ve bilinirliği artan bir bilim alanı olan egzersiz ve spor psikolojisi farklı psikolojik kavramların spor alanındaki insanların performans ve iyi oluşa yönelik etkileri incelenmeye devam etmektedir. Spor ve egzersiz psikolojisinin araştırma ve çalışma alanları öncelikli olarak psikolojik faktörlerin fiziksel performansı, ruhsal-duygusal sağlığı, zihinsel gelişimini ele alarak bütününde insan sağlığını, eylemlerini anlamlandırmayı ve iyileştirmeye yönelik bilgileri edinmeyi amaçlamaktadır. Bu bağlamda egzersiz ve spora yüksek katılım sağlayan kişilerde yüksek performans, tatmin ve bütünsel gelişimi destekleme faaliyetlerinde etkin rol oynamaktadırlar (Toy, 2021).

Sporcuların biliş ve duygularının farkında olup olmadıklarını ve ne ölçüde farkında olduklarını, bunların performanslarını nasıl etkilediklerini ve bu iç süreçleri nasıl yönettiklerini araştırmak önemlidir (Saint-Martin vd., 2020).

Duygu, düşünce ve davranışların kontrolünün bireyin kendisinde olduğu fikri İnançların akılcı olup olmadığını tartışan akılcı duygusal davranışçı kuramının temelini oluşturmaktadır. Kurama göre birey kendisi, diğerleri ya da dünya hakkında fikir edinmek için bilimsel yollara başvurması gerekmektedir (DiGiuseppe vd., 2013; Ellis & Dryden, 2007 ; Ellis & Maclaren, 1998). Akılcı duygusal davranışçı kurama göre insanları rahatsız eden olaylar değildir. Rahatsızlığın kaynağı bu olaylar hakkındaki dogmatik ve akılcı olmayan yani rasyonel olmayan düşünceleridir. Özellikle itici olan olumsuz olaylar rahatsızlığın gelişmesine katkı sağlarlar ancak asıl rahatsızlık insanların bu olaylar

hakkındaki akılcı olmayan düşünme stillerinin ortaya çıkmasıyla gerçekleşir (DiGiuseppe & diğerleri, 2013; Ellis & Dryden, 2007).

Akılcı inançların doğasında dogmatik olmayan ve tercihe dayalı bilişlerin olduğu ifade edilmiştir. Akılcı inançlar diğer bir deyişle istek, arzu, tercih ve dilek olarak bildiren Ellis, akıldışılığı ise kavramsal olarak insanların temel hedeflerine ve amaçlarına ulaşmasını engelleyen, mantıksız ve amprik olarak gerçeklik ile tutarsızlık olarak tanımlamıştır (Ellis vd., 2001).

Akılcı duygusal davranışçı yaklaşım yaklaşımında dört temel mantıksız inanç vardır, bunlar "talepkarlık" yani zorunluluklar içeren, mutlak olması gerekir düşüncesi, vb. şeklinde ifade edilen katı inançlar), "felaketleştirme" yani, olumsuzluğun yüzde yüz kötü olduğu sonucuna varmak ve sonuçları orantısız bir şekilde abartmak), "engellenmeye karşı düşük tolerans" durumun tahammül edilemez olduğu ve buna dayanamayacakları sonucuna varmak) ve değerini düşürücü inançlar başarısızlığı tamamen kendine, başkalarına ve hayata atfetmek" (Dryden & Branch, 2008).

Mantıksız inançlar katı, gerçeklikle tutarsız, akla uygun olmaz ve mantıksızdır. Bunun yerine dört temel akılcı inanç olması gerektiği savunulur bu inançlar esnek, gerçeklikle tutarlı ve mantıksal olarak kategorize edilir. Bu inançlar "tercihler" yani, dilekler, arzular ve istekler şeklinde ifade edilen esnek inançlar olduğu, "felaketleştirici olmayan" yani, hiçbir şeyin %100 kötü ve gerçekten korkunç olamayacağı inancını temsil etmektedir, "engellenmeye karşı yüksek tolerans" yani, zorlukların zor olabileceği ancak tahammül edilemez olmadığı inancını vurgular ve "kendini / diğerini / yaşamı kabul edici inançları" yani, kişinin davranışını derecelendirme ve kendilerini / başkalarını / hayatı yanılabilir ve kusurlu olarak kabul etme olarak kategorize edilmiştir (Dryden & Branch 2008).

Kapsamlı araştırmalar, akıldışı inançların, spor literatüründe gün yüzüne çıkan bir bulgu olan uyumsuz duygusal ve davranışsal tepkilerle (Visla vd., 2016) ilişkili olduğunu göstermektedir (Turner vd., 2019). Akılcı olmayan inançlar sporcuların hem kısa hem de uzun vadede hedeflerine ulaşmasını ve sağlıklı spor performansına ulaşmasını engelleyebileceği ve sporcuların psikolojik refahını etkileyebileceğini ifade edilmiştir (Turner, 2016). Sporda akılcı inançları benimsenmesi sporcuların atletik kariyerlerinin gelişiminde koruyucu faktörleri teşvik etmek ve zihinsel sağlığı güçlendirmek için önemlidir (Jordana, vd., 2020).

Sporda antrenörün ve hakemin olduğu kadar sporcuların verdiği kararlar da önemlidir. Oyun içinde, antrenör ve hakemden de önce verilen kararlar maçın gidişatını ya da skoru etkileyebilir. Spor ortamında sporcunun kendisine, diğerlerine (antrenör, takım arkadaşı, hakem, rakib v.d.) ve yaptığı spora bakış açısı oldukça önem arz etmektedir. Bu bağlamda sporcunun karşılaştığı durumları anlamlandırması ve duygusal karşılık vermesi ona göre tutum sergilemesi yapmış olduğu spordaki gelecek kariyeri açısından oldukça kritiktir. Genç sporcuların elit performans düzeyinde bir spor kariyeri oluşturması hedeflendiği düşünülürse karşılaştığı olaylara yüklediği anlamları akılcı olarak yorumlamasının önemli olduğu düşünülmektedir.

Bu bağlamda bu çalışmanın amacı genç sporcuların akıldışı performans inançlarının belirlenmesi, akıldışı inançlarının yaş, cinsiyet deneyim süresi ve milli olma deneyimi açısından farklılık olup olmadığının araştırılmasıdır.

YÖNTEM

Yöntem Bu araştırma nicel araştırma türlerinden betimsel tarama modeline uygun olarak düzenlenmiştir. Araştırma için önce literatür taraması yapılmış ve bu konudaki araştırmalar gözden geçirilmiştir.

Evren ve Örneklem

Çalışmanın evrenini, Güreş, Karate, Taekvando, Judo, Boks ve Masa Tenisi branşlarında performansa dayalı hazırlık yapan erkek sporcular oluşturmaktadır. Araştırmanın örneklemini Ankara ve İstanbul illerinde kulüplerde yatılı olarak spor yapmakta olan 198 erkek sporcu oluşturmuştur. Belirli bir grubun özelliklerini anket yolu ile tespit edildiği için tarama modeli kullanılmıştır (Büyüköztürk ve vd., 2009). Çalışmanın yapılabilmesi için Ardahan Üniversitesi bilimsel araştırma ve yayın etik kurulu'ndan (E-67796128-000-2200012712) "Etik Kurul Onayı" alınmıştır.

Verilerin Toplanması

Veriler google form online anket yöntemi ile toplanmıştır. Araştırmada kişisel bilgi formu, akıldışı performans inançları envanteri (APİE) kullanılmıştır.

Akıldışı performans inançları envanteri-2 (APİE-2), Turner ve Allen (2018) tarafından oluşturulmuştur. Toplam 20 maddeden oluşan envanter 5'li likert tipidir. Envanter performansa yönelik akıldışı inançları, talepkarlık, felaketleştirme, düşük tolerans ve değersizleştirme olmak üzere 4 faktörde değerlendirmektedir. Ölçekten alınan yüksek puan, o boyuta ait akıldışı inançların da yüksek olduğu anlamına gelmektedir. Ölçeğin güvenirliğine ait Cronbach Alpha iç tutarlılık katsayısı talepkarlık faktörü için .76, düşük tolerans faktörü için .85, felaketleştirme faktörü için .79 ve değersizleştirme faktörü için .87 olarak bulunmuştur. Ölçeğin geçerliği için doğrulayıcı faktör analizi yapılmış ve uyum değerleri kabul edilebilir sınırlarda ($\chi 2$ /sd = 3.90, CFI = .91, NNFI = .90, RMSEA = .07) bulunmuştur (Turner & Allen, 2018). Akıldışı Performans İnançları Envanteri-2'nin Türkçeye uyarlaması Urfa ve Aşçı (2018) tarafından yapılmıştır. APİE-2'nin güvenirliği için iç tutarlık katsayısı (Cronbach Alpha) hesaplanmıştır. Doğrulayıcı faktör analizi sonucunda, ölçeğin Türkçe formunun orijinal 4 faktörlü yapıyı desteklediği bulunmuştur. Ölçeğin yapı geçerliği için yapılan korelasyon analizinde APİE-2 faktörleri ile sporda kaygı, sporda mükemmeliyetçilik ve akılcı olmayan inanç arasında pozitif yönlü anlamlı ilişki bulunmuştur. Ölçeğin tamamına ait iç tutarlık katsayısı .88 iken, faktörlere ait iç tutarlık katsayısı .83 (Talepkarlık faktörü) ile .86 (Düşük tolerans ve değersizleştirme faktörleri) aralığında bulunmuştur (Urfa & Aşçı, 2018).

Bu çalışmada Cronbach Alpha katsayıları talepkarlık için 0,70; felaketleştirme için 0,73; düşük tolerans için 0,72 ve değersizleştirme için 0,65 olarak bulunmuştur.

Verilerin Analizi

Bu araştırmada verilerin analizi için SPSS 21 istatistik programı kullanılmıştır. Sporcuların duygusal zekâ düzeylerinin farklı değişkenlere göre farklılık gösterip göstermediğini belirlemek amacıyla ilk önce verilerin normal dağılım gösterip göstermediğini belirlemek amacıyla Kolmogorov Smirnov testi uygulanmıştır. Verilerin normal dağılım göstermediği yapılan test sonucu ile belirlendikten sonra iki grup karşılaştırmasında bağımsız örneklem T testi'nin nonparametrik karşılığı olan Mann-Whitney U testi uygulanmıştır.

BULGULAR

Tablo 1. Tanımlayıcı İstatistiki Bilgiler

Değişkenler		N	%
Yaş	1995-1999	30	15,2
	2000 ve üstü	168	84,8
Eğitim	Lise	152	76.8
	Üniversite	46	23.2
Spor Branşları	Güreş	56	28.3
	Karate	28	14.1
	Taekvando	40	20.2
	Judo	18	9.1
	Boks	22	11.1
	Masa Tenisi	34	17.2
Deneyim Süresi	1 yıl ve altı	20	10.1
	2-4 yıl	16	8.1
	5 yıl ve üzeri	162	81.8
Milli Takım Deneyimi	evet	124	62.6
	hayır	74	37.4

Çalışmada, 198 katılımcının 168'i (%84.8) 2000 yılı ve üstü doğumlu, 152'si (%76.8) lise eğitimi alan, 50'si (%28.3) Güreş branşı, 162'si (%81.8) 5 yıl ve üzeri deneyime sahip ve 124'ü (62.6) milli takım deneyimine sahip sporculardan oluşmaktadır.

Tablo 2. Sporcuların Akıldışı Performans İnançları Alt Boyut Puanları

Akıldışı Performans İnançları	N	x̄	S.s
Talepkarlık	198	3.54	.79
Felaketleştirme	198	3.21	.83
Düşük Tolerans	198	3.61	.85
Değersizleştirme	198	3.07	.71
Toplam APİE	198	3.36	.65

Tablo 2'de görüldüğü gibi akıldışı performans inançları puanlarından elde edilen en düşük ortalama değer 3.06 ± 0.71 ile "değersizleştirme" alt boyutunda elde edilirken; en yüksek ortalama değer 3.60 ± 0.85 ile "Düşük Tolerans" puanlarından elde edilmiştir.

Tablo 3. Yaş Değişkenine Göre Gruplarının Akıldışı Performans İnançları Envanteri Puanlarının Karşılaştırılması

APİE	Grup	N	Sıra Ort.	Sıra Top.	Z	p
Talepkarlık	1995-1999	30	66.37	1991.0	-3.454	.001
	2000 ve üstü	168	105.42	17710.0		
Felaketleştirme	1995-1999	30	98.97	2969.0	-.056	.956
	2000 ve üstü	168	99.60	16732.0		
Düşük Tolerans	1995-1999	30	93.03	2791.0	-.675	.500
	2000 ve üstü	168	100.65	16910.0		
Değersizleştirme	1995-1999	30	97.17	2915.0	-.244	.807
	2000 ve üstü	168	99.92	16786.0		
Toplam APİE	1995-1999	30	86.43	2593.0	-1.357	.175
	2000 ve üstü	168	101.83	17108.0		

Tablo 3 incelendiğinde, örneklem grubu yaş değişkeni açısından akıldışı performans inançları talepkarlık alt boyutu ($z=-3.454$, $p<.05$) sıra ortalamaları arasında anlamlı bir fark olduğu görülmektedir. Felaketleştirme alt boyutu ($z=-.056$, $p>.05$), düşük tolerans alt boyutu ($z=-.675$, $p>.05$) ve değersizleştirme alt boyutu ($z=-.244$, $p>.05$) ve toplam APİE ($z=-1.357$, $p>.05$) sıra ortalamaları arasında anlamlı bir fark olmadığı görülmektedir.

Tablo 4. Eğitim Değişkenine Göre Gruplarının Akıldışı Performans İnançları Envanteri Puanlarının Karşılaştırılması

APİE	Grup	N	Sıra Ort.	Sıra Top.	Z	p
Talepkarlık	Lise	152	105.79	16080.0	-2.82	**.005**
	Üniversite	46	78.72	3621.0		
Felaketleştirme	Lise	152	99.88	15182.0	-.17	**.864**
	Üniversite	46	98.24	4519.0		
Düşük Tolerans	Lise	152	100.38	15258.0	-.39	**.692**
	Üniversite	46	96.59	4443.0		
Değersizleştirme	Lise	152	101.17	15378.0	-.75	**.453**
	Üniversite	46	93.98	4323.0		
Toplam APİE	Lise	152	102.05	15512.0	-1.14	**.254**
	Üniversite	46	91.07	4189.0		

Tablo 4 incelendiğinde, örneklem grubu eğitim değişkeni açısından akıldışı performans inançları talepkarlık alt boyutu (z=-2.821, p<.05) sıra ortalamaları arasında anlamlı bir fark olduğu görülmektedir. Felaketleştirme alt boyutu (z=-,171p>.05), düşük tolerans alt boyutu (z=-.396, p>.05) ve değersizleştirme alt boyutu (z=-.751, p>.05) ve toplam APİE (z=-1.140, p>.05) sıra ortalamaları arasında anlamlı bir fark olmadığı görülmektedir.

Tablo 5. Deneyim Süresi Değişkenine Göre Gruplarının Akıldışı Performans İnançları Envanteri Puanlarının Karşılaştırılması

APİE	Grup	N	Sıra Ort.	Sıra Top.	Z	p
Talepkarlık	1-4 yıl	36	123,94	4462,0	-2,84	,004
	5 ve üzeri	162	94,07	15239,0		
Felaketleştirme	1-4 yıl	36	133.50	4806.0	-3.95	.000
	5 ve üzeri	162	91.94	14895.0		
Düşük Tolerans	1-4 yıl	36	101.11	3640.0	-.19	.851
	5 ve üzeri	162	99.14	16061.0		
Değersizleştirme	1-4 yıl	36	113.17	4074.0	-1.59	.111
	5 ve üzeri	162	96.46	15627.0		
Toplam APİE	1-4 yıl	36	124.06	4466.0	-2.84	.004
	5 ve üzeri	162	94.04	15235.0		

Tablo 5 incelendiğinde, örneklem grubu deneyim değişkeni açısından akıldışı performans inançları talepkarlık alt boyutu (z=-2.843, p<.05), Felaketleştirme alt boyutu (z=-3.952, p<.05) ve

toplam APİE (z=-2.845, p<.05) sıra ortalamaları arasında anlamlı bir fark olduğu görülmektedir. Düşük tolerans alt boyutu (z=-.188, p>.05) ve değersizleştirme alt boyutu (z=-1.592, p>.05) sıra ortalamaları arasında anlamlı bir fark olmadığı görülmektedir.

Tablo 6. Milli Sporcu Olma Değişkenine Göre Gruplarının Akıldışı Performans İnançları Envanteri Puanlarının Karşılaştırılması

APİE	Grup	N	Sıra Ort.	Sıra Top.	Z	p
Talepkarlık	evet	124	87.52	10852.0	-3.82	.000
	hayır	74	119.58	8849.0		
Felaketleştirme	evet	124	92.11	11422.0	-2.35	.018
	hayır	74	111.88	8279.0		
Düşük Tolerans	evet	124	98.42	12204.0	-.34	.730
	hayır	74	101.31	7497.0		
Değersizleştirme	evet	124	95.95	11898.0	-1.13	.256
	hayır	74	105.45	7803.0		
Toplam APİE	evet	124	91.69	11370.0	-2.48	.013
	hayır	74	112.58	8331.0		

Tablo 6 incelendiğinde, örneklem grubu milli sporcu olma değişkeni açısından akıldışı performans inançları talepkarlık alt boyutu (z=-3.827, p<.05), Felaketleştirme alt boyutu (z=-2.358, p<.05) ve toplam APİE (z=-2.483, p<.05) sıra ortalamaları arasında anlamlı bir fark olduğu görülmektedir. Düşük tolerans alt boyutu (z=-.345, p>.05) ve değersizleştirme alt boyutu (z=-1.135, p>.05) sıra ortalamaları arasında anlamlı bir fark olmadığı görülmektedir.

TARTIŞMA

Akıldışı inançlar katı, talep etme odaklı, gerçekle bağdaştırılamayan, tutarsız ve işlevsiz inançlar olarak tanımlanabilir. Akılcı inançlar ise esnetilebilen, tercihler sunan, gerçekçi (ispatlanabilir), tutarlı ve işlevsel olan inançlar olarak tanımlanmıştır (Dryden, 2001, Dryden & Branch, 2008). Kapsamlı araştırmalar, akıldışı inançların, spor literatüründe gün yüzüne çıkan bir bulgu olan uyumsuz duygusal ve davranışsal tepkilerle ilişkili olduğunu göstermektedir (Turner, Carrington & Miller, 2019).

Kapsamlı araştırmalar, akıldışı inançların, spor literatüründe gün yüzüne çıkan bir bulgu olan uyumsuz duygusal ve davranışsal tepkilerle (Visla vd., 2016) ilişkili olduğunu göstermektedir (Turner, Carrington & Miller, 2019). Başarılı sporcuların psikolojik stratejileri ve özellikleri üzerine birçok çalışma yapılmıştır, ancak farklı performans seviyelerini karşılaştıran sporcuların davranış ve tutumlarını anlamak için daha fazlasına ihtiyaç vardır. Bu nedenle, sporcuların biliş ve duygularının farkında olup olmadıklarını ve ne ölçüde farkında olduklarını, bunların performanslarını nasıl

etkilediklerini ve bu iç süreçleri nasıl yönettiklerini araştırmak önemlidir (Saint-Martin, Turner & Ruiz., 2020).

Tüm bu bilgiler ışığında bireylerin karşılanması gereken fizyolojik ve psikolojik ihtiyaçları gün yüzüne çıkmaktadır. Sporcuların ise üst düzey performans gerçekleştirebilmesi için yalnızca fizyolojik değil ayrıca psikolojik olarak da ihtiyaçlarını karşılamaları ve bunun yanı sıra psikolojik olarak kendilerini güçlendirmeleri gerekmektedir. Bunlara ek olarak sporcunun etrafındaki çevresel etmenleri de psikolojik durumlarını etkilemektedir. Sporun yalnızca fiziksel duruma bağlı olmaması, sporda psikolojik etmenlerin de rol oynadığının bilinmesi yapılan çalışmaları bu alana doğru döndürmüştür.

Gibson ve Chandler (1988)'a göre farklı bireylerin farklı yoğunluklarda farklı ihtiyaçları olmakta ve zamana ve çevresel faktörlere göre değişmektedir. Bir sporcunun fizyolojik ve psikolojik açıdan müsabakaya hazır olması için motivasyonunun yeterli bir düzeyde olması gerekmektedir. Araştırmacılara göre sporcuların başarı ve performans düzeyleri genetik yapılarına, düzenli antrenmana ve bunların yanı sıra beden-zihin etkileşimi içerisinde duygu, düşünce ve zihinsel süreçlerin kontrolüne bağlı olduğu vurgulanmıştır.

Lise ve üniversite düzeyindeki sınavlar bağlamında yapılan mevcut araştırmalar, yüksek akıldışı inançların durumluk kaygısının artmasına neden olduğunu göstermektedir (Boyacıoğlu & Küçük, 2011; Cramer & Buckland, 1995; Malouff, Schutte & McClelland, 1992; Tobacyk & Downs, 1986).

Performansla ilgili daha yüksek akıldışı inançlara sahip olma eğiliminde olan sporcular, performansla ilgili işlevsiz bir duygusal tepki ürettikleri varsayılmakta (Dryden, 2009; Malouff, Schutte & McClelland, 1992), bunun da baskı altındaki sporcuların daha düşük performans sergileyecekleri söylenmiştir. Bireylerin akıldışı inançlarının temeli yetiştikleri ortama kadar uzanabilmektedir. Daha sonra bu inançlar bireylerin ileriki deneyimlerinde oldukça etkili olmaktadır. Akıldışı inançlara sahip olan sporcuların performansları hakkındaki inançları, rakip hakkındaki düşünceleri, hedefleri ve kendine olan inançları da bundan etkilenmektedir (Toy, 2021).

Araştırma örneklem grubu genç sporculardan oluşmaktadır ve yapmış olduğu sporda a takım seviyesinde elitleşmemişlerdir. Bu açıdan değerlendirildiğinde akıldışı inançların onların performanslarını olumsuz yönde etkileyebileceği düşünülmektedir. Fakat elit örneklem düzeyinde ise bu etkinin giderek azalabileceği düşünülmektedir. Elit örneklemlerde yapılan çalışmalar gösteriyor ki yüksek akıldışı inançların gözlemlendiği sporcularda akılcı olmayan inançların tek başına atletik performansa zarar vermesi olası görünmemekte (Turner, Carrington & Miller, 2019) fakat akıldışı inançların algılanan yarışma baskısı ile etkileşimi, deneyimlenen olayların farklı bilişsel değerlendirmelerini (örn. meydan okuma ve tehdit) yönlendiren bir unsur olabileceği söylenmektedir (Chadha, Turner & Slater, 2019).

Günlük yaşam ortamlarında olduğu gibi yarışmacı spor ortamlarında da işlevsel olmayan duygusal tepkilerin, ADDY çerçevesinde akıldışı inançların temel bir sonucu olarak görüldüğü ve alan araştırmaları ile desteklendiği bilinmektedir (Dryden, 2009; Malouff vd., 1992; Turner & Barker, 2013)

Yapılan araştırmalar ışığında akıldışı inançlar ile yüksek baskı altındaki durumluk kaygı arasında pozitif yönlü ilişki olduğu söylenilebilir (Malouff, Schutte & McClelland, 1992; Tobacyk & Downs, 1986). Sporcularda akıldışı performans inançları ile tükenmişlik arasındaki ilişkide tutkunluk türlerinin aracılık etkilerini ve bu değişkenlerin cinsiyet, spor türü ve spor deneyimine göre farklılaşıp farklılaşmadığını incelenen bir araştırmada akıldışı performans inançları, tükenmişlik ve tutkunluk alt boyutlarında cinsiyete göre farklılıkların olduğu bildirilmiştir. Fakat yine bu araştırmada bulgularımızın aksine akıldışı performans inançlarında spor deneyime göre farklılık bulunmadığı bildirilmiştir. Özetle sporcuların sahip oldukları akıldışı inançların, yaptıkları spora olan tutkunlukları aracılığıyla tükenmişlikleri üzerinde etkili olduğu bildirilmiştir (Yahya, 2021).

Yapılan bir diğer araştırma bulgusunda ise akılcı duygusal davranışçı yaklaşım temelli grupla psiko-eğitim programının genç güreşçilerde spor kaygısı ve akıldışı performans inançları üzerindeki etkisinin incelendiği bir diğer araştırma bulgusunda ise akılcı duygusal davranışçı yaklaşıma dayalı grupla psiko-eğitim programının güreşçilerin akıldışı performans inançları (talepkarlık, felaketleştirme, düşük tolerans ve değersizleştirme) üzerinde etkili olduğu ve bu etkinin 2 ay sonra gerçekleştirilen izleme testinde de kalıcı olduğu görülmüştür (Toy, 2021).

Performansla ilgili daha yüksek akıldışı inançlara sahip olma eğiliminde olan sporcuların, performansla ilgili işlevsiz bir duygusal tepki ürettikleri varsayılmakta (Dryden, 2009; Malouff, Schutte ve McClelland, 1992) ve baskı altındaki sporcuların, daha düşük performans sergileyebilecekleri söylenmiştir. Yüksek baskı altında sportif performans kaybı yaşayan Avustralyalı futbolcuların akıldışı inançlar ile performans düzeyleri arasında güçlü bir negatif korelasyon olduğu; atletik performansın, düşük baskı altındaki akılcı olmayan inançlarla birlikte artış eğiliminde olduğu ve yüksek baskı altında artan mantıksız inançlarla birlikte performansta azalma eğilimi olduğunu bildirilmiştir (Mesagno vd., 2020).

Turner ve arkadaşları (2020) golf sporcularında performans kaygısı, sosyal kaygıyı ve golf performansıyla ilişkilisini incelenmiş olup, golfçular üzerindeki sosyal kaygıyı azaltabilecek potansiyel bir müdahale aracı olarak akılcı duygusal davranışçı yaklaşımı vurgulamışlardır. Spora özgü akıldışı performans inançları kaynaklı kaygının sporcularda çok yaygın olduğu ve akılcı duygusal davranışçı yaklaşım temelli müdahale programlarının uygulanması etkili sonuçlar vermektedir. Verilen örneklerde görüldüğü üzere bu çalışmada ele alınan araştırma bulguları, akılcı duygusal davranışçı yaklaşım müdahalelerinin performans kaygısını (Turner & Barker, 2013) ve sosyal kaygıyı (Tulbure vd., 2015; Turner, Ewen & Barker, 2020) azaltabileceğine dair geçmiş araştırma bulgularını desteklemektedir.

SONUÇLAR

Çalışmamızın sonucunda, genç sporcuların akıldışı inanç puanlarının yaş ve eğitim düzeyleri arttıkça düşüş gösterdiği, deneyim düzeyi ve milli takım tecrübesi fazla olan sporcuların akıldışı inançlarının azaldığı görülmektedir. Fakat buna rağmen araştırmaya katılan tüm sporcuların akıldışı inançlarının yüksek olduğu ve bu durumun geleceğe dair sportif kariyerleri açısından aşılması gerekilen

önemli bir unsur olacağı düşünülmektedir. Bundan sonraki yapılacak çalışmalarda cinsiyet, takım ve bireysel sporcuların karşılaştırması yapılması düşünülebilir. Yine spor psikolojisi konularından olan hedef yönelimi, motivasyon, psikolojik sağlamlık gibi konularla akıldışı performans inançlarının ilişkisini ortaya koyacak başka çalışmalar bu konu hakkındaki literatüre ışık tutacaktır. Uygulamalı spor psikolojisi çalışmalarına yönelik akıldışı performans inançlarını konu alan deneysel tasarımlı araştırmaların (müdahale programları) yapılması oldukça faydalı olacaktır.

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EXTENDED ABSTRACT

Introduction

In sports, the decisions made by the athletes are as important as the coach and the referee. Decisions made within the game, before the coach and the referee, may affect the course of the match or the score. In the sports environment, the perspective of the athlete to himself, to others (coach, teammate, referee, opponent, etc.) and to the sport he is doing is very important. In this context, it is very critical for the athlete to make sense of the situations he encounters and to respond emotionally and to exhibit an attitude according to his future career in the sport he has done. Considering that young athletes aim to create a sports career at the elite level of performance, it is thought that it is important to rationally interpret the meanings they attribute to the events they encounter.

In this context, the aim of this study is to determine the irrational performance beliefs of young athletes, and to investigate whether there is a difference in their irrational beliefs in terms of age, gender experience and national experience.

Method

This research was organized in accordance with the descriptive survey model, which is one of the quantitative research types. For the research, first of all, a literature review was made and the studies on this subject were reviewed.

The universe of the study consists of male athletes who make performance-based preparations in Wrestling, Karate, Taekwondo, Judo, Boxing and Table Tennis branches. The sample of the study consisted of 198 male athletes who were boarding in clubs in Ankara and Istanbul. Since the characteristics of a particular group were determined by means of a questionnaire, the survey model was used (Büyüköztürk et al., 2009). "Ethics Committee Approval" was obtained from Ardahan University scientific research and publication ethics committee (E-67796128-000-2200012712) in order to carry out the study.

The data were collected by google form online survey method. Personal information form and irrational performance beliefs inventory (APIE) were used in the study.

Irrational performance beliefs inventory-2 (APIE-2) was created by Turner and Allen (2018). The inventory, which consists of a total of 20 items, is a 5-point Likert type. The inventory evaluates irrational beliefs about performance in four factors: demanding, catastrophizing, low tolerance, and devaluation. A high score from the scale means that the irrational beliefs of that dimension are also high. The Cronbach Alpha internal consistency coefficient of the scale's reliability was found to be .76 for the demanding factor, .85 for the low tolerance factor, .79 for the catastrophizing factor, and .87 for the devaluation factor.

In this study, the Cronbach Alpha coefficients were 0.70 for demanding; 0.73 for catastrophizing; 0.72 for low tolerance and 0.65 for depreciation.

Results

As a result of our study, it is seen that the irrational belief scores of young athletes decrease as their age and education levels increase, and the irrational beliefs of the athletes with more experience level and national team experience decrease. However, it is thought that all athletes participating in the research have high irrational beliefs and this situation will be an important factor that needs to be overcome in terms of their future sportive careers. In future studies, it may be considered to compare gender, team and individual athletes. Again, other studies that will reveal the relationship between sports psychology subjects such as goal orientation, motivation, psychological resilience and irrational performance beliefs will shed light on the literature on this subject. It would be very beneficial to conduct experimentally designed research (intervention programs) on irrational performance beliefs for applied sports psychology studies.

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COMPUTER PROGRAMMING STUDENTS' LEARNING MOTIVATION IN PROGRAMMING COURSES

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ABSTRACT

This study aimed to explore vocational school computer programming students' motivations to learn programming. The study used a survey research design and surveyed 165 first-year and second-year students studying computer programming. The data were collected using the "Learning Motivation in Computer Programming Courses Scale" consisting of nineteen items. The data were analysed using the frequency, mean, and standard deviation values. The independent-samples t-test was used to determine the difference between groups. The analysis results showed that computer programming students had a good level of learning motivation in computer programming courses.

Keywords: Learning motivation; programming education; programming courses; computer programming.

BİLGİSAYAR PROGRAMCILIĞI ÖĞRENCİLERİNİN PROGRAMLAMA DERSLERİNDEKİ ÖĞRENME MOTİVASYONLARI

ÖZET

Bu çalışmada meslek yüksekokulu bilgisayar programcılığı öğrencilerinin programlamayı öğrenmeye yönelik motivasyonlarının belirlenmesi amaçlanmıştır. Çalışmada, tarama modeli kullanılmıştır. Çalışmaya bilgisayar programcılığı programı 1. ve 2. sınıf toplam 165 öğrenci katılmıştır. Veriler, 19 maddeden oluşan "Bilgisayar Programlama Derslerinde Öğrenme Motivasyonu Ölçeği" aracılığı ile toplanmıştır. Verilerin analizinde frekans, ortalama ve standart sapma değerleri hesaplanmıştır. Gruplar arasındaki farklılığı tespit etmek için Bağımsız Gruplar T Testi kullanılmıştır. Çalışma sonunda elde edilen bulgulara göre bilgisayar programcılığı öğrencilerinin bilgisayar programlama derslerinde öğrenme motivasyonu düzeylerinin iyi düzeyde olduğu belirlenmiştir.

Anahtar Kelimeler: Öğrenme motivasyonu; programlama eğitimi; programlara dersleri; bilgisayar programcılığı.

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INTRODUCTION

With the rapid development and change of technology, information technologies have now become more important and more needed. As a result of this need, information technologies are used in every field including industry, military, health, transportation, agriculture, and economy. They have also been used intensively in the field of education. As information technologies become more important in human life, the need for writing and developing new software in every field has grown (Keskinsoy, 2010). Thus, programming education should be given to respond to this need and equip individuals with the skills required by the century, (Çatlak et al., 2015). Programming education has grown in importance with the changing conditions and understanding of education. In the ever-developing software industry, there has been an increasing need for talented individuals who can program. With the increasing need, there has been an increase in programming education to meet this need. In fact, countries have established relevant education policies to raise individuals who can both program and have the skills required by the century.

Programming means solving a given problem using a language that computers can understand (Blackwell, 2002; Van Roy & Haridi, 2004). From this point of view, programming is a complicated process to learn as it mostly requires complex and high-level skills (Gültekin, 2006; Kert & Uğraş, 2009; Tan et al., 2009; Helminen & Malmi, 2010; Monroy-Hernandez & Resnick, 2008; Shin et al., 2013; Akpınar & Altun, 2014). There are various problems in programming education both in our country and in the world (Kaleci & Özhan, 2017). Previous studies have shown that achieving the learning outcomes of computer programming courses at different levels of education depends not only on students' academic achievement but also on several factors that affect learning programming such as attitudes, self-efficacy, motivation, and demographics (gender, school type, year of study, GPA, etc.) (Jenkins, 2002; Akpınar & Altun, 2014; Başer, 2013a; Korkmaz & Demir 2012; Reardon & Tangney, 2014). These factors may cause students to easily lose interest in programming learning. Low motivation has been shown to be a crucial factor in programming learning (Gomes & Mendes, 2007; Tella, 2007; Heersink & Moskal, 2010; Saygıner & Tüzün, 2017).

Therefore, factors that affect learning should be taken into account in programming education to train programmers who have the desired skills and competencies. Motivation is one of the key factors that affect learning. To motivate individuals to learn, topics should be presented in such a way to encourage individuals and make them willing to learn (Bacanlı, 2005). Thus, it is of utmost importance to pay attention to students' learning motivation as well as individual differences in learning computer programming (Jenkins, 2001).

Learning motivation refers to the degree to which students are willing to continue learning. Learning and motivation are overly complex aspects of human behaviour (Law et al., 2010; Wang et al., 2020). Motivation is a key factor that encourages students to learn (Ling et al. 2020). Studies have demonstrated that learning motivation affects teaching outcomes (Lynch, 2006; Lin & Jou, 2013; Law et al., 2019; Rocha et al., 2019; Sanaie et al., 2019; Gan, 2020).

From this point of view, the necessity of improving programming education today requires paying special attention to students' learning motivation. Additionally, there is a limited number of studies on the effect of motivation on vocational school students in terms of programming education. Against this background, the purpose of this study was to explore trainee computer programmers' levels of learning motivation for programming according to different variables such as gender, the year of study, and the type of high school that they graduated from. To this end, answers were sought to the following questions:

1) What is the level of computer programming students' learning motivation for programming?

2) Does computer programming students' learning motivation for programming differ according to gender, the year of study, and the type of high school that students graduated from?

METHODS

Research Design

The study used a descriptive survey research design. This study aimed to determine trainee computer programmers' levels of learning motivation for programming according to different variables such as gender, the year of study, and the type of high school that they graduated from. Survey research aims to reveal a past and present situation as it is and to explain, compare, and describe attitudes and behaviour (Karasar, 2002).

Participants

The participants consisted of first- and second-year students studying computer programming in the vocational school of a university. 165 trainee computer programmers participated in the study. Table 1 shows information about the participants.

Table 1. Information About the Participants

Characteristics	N	%
Gender		
Female	34	20.6
Male	131	79.4
Year of Study		
1st year	73	44.2
2nd year	92	55.8
Type of high school that students graduated		
Regular	90	54.5
Vocational	75	45.5

Data Collection Tools

The "Learning Motivation in Computer Programming Courses Scale" (LMCPC Scale) was developed by Law, Lee, and Yu (2010) to investigate motivational factors that affect learning among computer science and engineering students taking computer programming courses. The scale was adapted to Turkish by Avcı and Ersoy (2018). The scale consists of nineteen items subsumed under six factors. It is rated on a 6-point Likert type scale as follows: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = strongly agree. The reliability coefficient was found to be .90 for the total scale. In this study, the internal consistency was recalculated for the total scale and Cronbach's alpha was found to be .85. The lowest possible score is 19 and the highest possible score is 114.

Data Analysis

The data were analysed using the frequency, mean, and standard deviation values. The normality of data was tested to decide which statistical analysis to use to explore the difference between the groups. To this end, the Kolmogorov-Smirnov test was used to check whether the data are normally distributed. The Kolmogorov-Smirnov test results showed that the data were normally distributed for the entire scale ($p = .098$, $p > .05$). Because the data were normally distributed, the independent-samples t-test was used to determine the difference between the groups. Table 2 presents the analysis results on the normality of the data obtained from the scale.

Table 2. Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total	.064	165	.098*	.966	165	.000

FINDINGS

Table 3 shows the descriptive statistics for trainee computer programmers' total scores on the "LMCPC Scale" regardless of gender, the year of study, and the type of high school that they graduated from.

Table 3. Descriptive Statistics

	N	Min	Max	Mean	SD
Learning Motivation for Programming	165	19.00	108.00	79.9394	13.54563

Table 3 displays the minimum, maximum, arithmetic mean, and standard deviation values of students' learning motivation for programming. As can be seen from the data in Table 3, the participants had a good level of learning motivation for programming (X= 79.9394). Table 4 displays students' levels of learning motivation for programming according to gender.

Table 4. Descriptive Statistics according to Gender

	N	Min	Max	Mean	SD
Female	34	19	107.00	69.0882	15.79675
Male	131	53	108.00	82.7557	11.37277

Table 4 displays the minimum, maximum, arithmetic mean, and standard deviation values of students' total scores on the LMCPC Scale in relation to gender. In terms of gender, it is seen that male students had a higher mean score than female students. The difference could not be examined in terms of gender because the number of female and male students was not equal. Table 5 shows the descriptive statistics for students' learning motivation in terms of the year of study. Table 6 shows the t-test results.

Table 5. Descriptive Statistics according to the Year of Study

	N	Min	Max	Mean	SD
1st year	73	59	108	82.8219	12.15678
2nd year	92	19	103	77.6522	14.20527

Table 5 displays the minimum, maximum, arithmetic mean, and standard deviation values of students' total scores on the LMCPC Scale in relation to the year of study. First-year students had a higher mean score than second-year students.

Table 6. T-Test Results according to the Year of Study

Groups	N	Mean	SD	t	df	p
1st year	73	82.8219	12.15678	2.473	163	.014
2nd year	92	77.6522	14.20527			

As seen in Table 6, the t-test results showed that the difference between first-year students and second-year students in their mean learning motivation scores was statistically significant ($t = 2.473$; $p = .014$; $p < .05$). Table 7 shows the descriptive statistics for students' learning motivation in terms of the type of high school that they graduated from. Table 8 shows the t-test results.

Table 7. Descriptive Statistics according to the Type of High School

	N	Min	Max	Mean	SD
Regular	90	19	103.00	77.4333	13.43821
Vocational	75	53	108.00	82.9467	13.13947

Table 7 displays the minimum, maximum, arithmetic mean, and standard deviation values of students' total scores on the LMCPC Scale in relation to the type of high school that they graduated from. In terms of the type of high school, it is seen that students who graduated from a vocational high

school had a higher mean score than those who graduated from a regular high school. Table 8 displays the independent samples t-test results in terms of the type of high school that they graduated from.

Table 8. T-Test Results according to the Type of High School

Groups	N	Mean	SD	t	df	p
Regular	90	77.4333	13.43821	-2.651	163	.009
Vocational	75	82.9467	13.13947			

As seen in Table 8, the t-test results showed that the difference between students' mean learning motivation scores in terms of the type of high school that they graduated from was statistically significant ($t = -2.651$; $p = .009$; $p < .05$).

DISCUSSION AND CONCLUSION

The study explored trainee computer programmers' levels of LMCPC in relation to gender, the year of study, and the type of high school that they graduated from. It was found that trainee computer programmers' levels of LMCPC differed according to the year of study and the type of high school that they graduated from.

The analysis results showed that trainee computer programmers had a good level of LMCPC. It can thus be said that they are willing to learn computer programming and they consciously preferred to study computer programming. Reardon and Tangney (2015) reported that various methods and approaches that they used in programming courses increased students' learning motivation. In a similar vein, several approaches such as project-based, game-based, and cooperative learning are suggested to increase LMCPC (Başer, 2013b).

The present study found that the levels of LMCPC were higher among male trainee computer programmers compared to females. This result might indicate that male participants are more interested in programming. However, previous studies have reported that the effect of gender is not definite (Lau & Yuen, 2009; Pillay & Jugoo, 2005). Because the number of male and female participants was not equal in the present study, it was not possible to examine whether trainee computer programmers' levels of LMCPC differ according to the gender variable.

The analysis results showed that first-year students had a higher mean score than second-year students. Accordingly, trainee computer programmers' LMCPC differed according to the year of study and the difference was in favour of the first-year students.

Another finding of the study is that trainee computer programmers who graduated from a vocational high school had a higher level of LMCPC compared to those who graduated from a regular high school. As it is known, students from all kinds of high schools come to vocational schools. However, students attending vocational high schools take programming courses. This situation may have caused the difference in LMCPC. Accordingly, trainee computer programmers' LMCPC differed according to the type of high school that they graduated from, and the difference was in favour of those

who graduated from vocational high schools. Yağcı (2016) found a similar result in favour of vocational high schools.

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