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CORRESPONDENCE
Sakarya University
Faculty of Education
Educational Sciences Department
Sakarya / TURKEY

email: ijleljournal@gmail.com
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The School Administrator's Social Network Use Purposes

Prof. Dr. Osman TİTREK[1], Esra SARI[2]

[1]Prof. Dr., Sakarya University, Faculty of Education, Department of Education Sciences, ORCID ID: 0000-0001-8176-4958
[2]*M.S., Sakarya University, Institute of Educational Sciences,* ORCID ID: 0000-0002-0357-7476
E-mail: otitrek@hotmail.com, esbus@live.de

Abstract
Today, in line with the rapid changes and developments in the technological field, as in every field, school administrators holding an important place in the education sector, should keep up with technological developments. In this context, the aim of school administrators' use of social networks becomes prominent. In this study, it was aimed to examine the purpose of school administrators' use of social networks in terms of gender, age, title, educational status, year of service and the institution they belong to. Research is a descriptive study in the descriptive survey model. The population of the research is the school administrators in Sakarya province. The sample was chosen from the population by simple random sampling method based on the principle of unbiasedness. The sample consisted of 478 school administrators. In the analysis of the obtained data, descriptive statistical techniques were used in accordance with the problem situations studied in the research. According to the results of the study, it was determined that the "Collaboration" has the highest score where "Initiating Communication" has the lowest score within the purposes of school's administrators' use of social networks. According to this, school administrators use social networks more for cooperation. In addition, school administrators mostly preferred "Facebook" and "WhatsApp" social media applications.

Key words: Social Network, School Administrators, Social Network Use Intentions.

Introduction

Today, with the development of Web 2.0 technologies that prioritize social interaction, cooperation and sharing, different Internet environments have been used. Social networking sites which is considered as one of the most important components of Web 2.0 technology, and one of the most popular sharing media is one of these environments (Karal and Kokoç, 2010). Considering the world's most popular websites, which are determined by various criteria such as the number of visitors, data exchanges and page views, it is seen that most of the sites at top are social networking sites (SimilarWeb, 2018; eBizMBA, 2018; Alexa, 2018). When the studies are examined, the social networks are generally used for communication, sharing, cooperation, social interaction, education, entertainment and so on (Cheung, Chiu and Lee, 2011; Hew, 2011; Selwyn, 2009; Karal and Kokoç, 2010). From this point of view, it can be argued that the social networks which play an important role in the daily life of the majority of the individuals, mostly young people, can be put into the context of education, these tools can be used as a tool for educational technology, and individuals need to use these environments for educational purposes (Mazman, 2009).

The usage purpose of social networks used throughout the world may vary from person to person. Usually social networks is used for different purposes such as communicate, maintain communication, find friends, entertainment, follow developments, research, collaborate, share, learn, etc.. (Mazman and Usluel, 2010; Şener, 2009; Usluel, Demir and Çınar, 2014).

It is possible to list the characteristics of the era in which we are in general as information age as scientific and technological developments, development and increase of knowledge, globalization, innovation and and the change and development innovation brings (Kılıçer, 2011; Kurtuluş, 2012). As in all areas of life, rapid developments in information and communication technologies have also had an impact on the field of education and have brought about changes in the structure, operation and scope of education as well as the roles of people in the education sector (Mazman, 2009). Along with today's technological developments, school administrators had to keep up with technology to meet the needs of individuals. In order to achieve the speed of change, managers need to renew themselves continuously, especially on social networks and information technologies (Ciğerci, 2016). The fact that the managers who are in charge of survival and development of the organization inevitably and partly necessarily adapting to the technological and scientific changes and developments and being knowledgeable about social networks, will help them to be

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more effective on the dynamics of the organization. In this context, it can be asserted that the purpose of school administrators using social networks appears to be a functional research subject to examine.

The usage of the social networks of school administrators who hold an important place in the education sector in line with all these changes and developments is the problem of this study. This research is important for school administrators working at all levels of compulsory education to examine the purpose of using social networks. The sub-problems of the study are as follows:

1. What are the objectives of school administrators' use of social networks?
2. Is there a meaningful difference between the use of social networks regarding the dimensions in terms of gender, age, title, educational status, years of service and the variables of the institution school administrators are related to?

Method

This research is a descriptive study in the survey model. The descriptive survey model aims to describe a situation as it is in the past or today (Karasar, 2012). Within the scope of the research, the purpose of school administrators' use of social networks was determined in terms of various variables.

The population of the study consists of school administrators working in 735 schools in different types and levels in Sakarya province. The sample of the study consisted of 272 school principals and 206 deputy principals, who were assigned to all schools affiliated to MoNE in the province of Sakarya during 2016-2017 academic year and who were selected by simple random sampling method based on volunteerism. This sampling was chosen in the name of reliability, economics and effective time usage. In order to obtain the research data," Purpose of Usage of Social Networks Scale" and "Personal Information Form" prepared by the researcher were used.

The purpose of usage of social networks scale was developed by Usluel et al. (2014). The scale consists of 26 questions, classified as 7 sub-dimensions: research, collaboration, initiating communication, maintaining communication, communicating, content sharing and entertainment. The number of factor items in the scale varies between 2 and 6. The Cronbach alpha reliability coefficients of the scale factors are given in Table 1.

Table 1. Reliability coefficients according to factors

Factor	Reliability coefficient
Research	.78
Collaboration	.86
Initiating Communication	.67
Maintaining Communication	.87
Communicating	.82
Content Sharing	.87
Entertainment	.81

The Cronbach alpha reliability coefficient of the scale was calculated as .92. The reliability coefficients of the factors were found as .67 to .87 where the item total correlations were ranged between .331 and .717. The answers to the items of the scale vary between "Strongly agree "(7) and "Strongly disagree" (1). A maximum of 182 and minimum 26 points can be obtained from the scale. The high arithmetic mean of any use factor is interpreted as the intense use of social networks for this purpose. In our study, the Cronbach alpha reliability coefficient of the scale was calculated as .87. The reliability coefficients of the factors were .72 to .85; the total correlations of the scale were found to change between .338 and .645. While developing the scale of the purpose of use of social networks, whether the scale items are appropriate for the purpose of measurement, the comprehensibility and distinctiveness of the expressions have been evaluated by 3 field experts, and have been checked by 2 Turkish Language experts have checked for linguistic validity, the necessary arrangements had been resettled in the light of the returns of the field experts.

The data obtained from the study were analyzed by using SPSS 20.0 package program. Kolmogorov-Smirnow test was used to test whether the data were normal distribution and non-parametric tests were used since the data were determined not to be normally distributed (Table 2.). Percentage, frequency, arithmetic mean, standard deviation, Spearman correlation test, Mann Whitney U Test, and Kruskal Wallis tests were applied to the data analysis depending sub-problems. Significance level was accepted as .05 for testing the significance of the differences.

Table 2. Distribution of data

	Kolmogorov-Smirnov			Shapiro-Wilk		
Sub Dimensions	**Statistics**	**Degrees of freedom**	**p**	**Statistics**	**Degrees of freedom**	**p**
Research	,104	478	,000**	,962	478	,000**
Collaboration	,081	478	,000**	,977	478	,000**
Initiating Communication	,159	478	,000**	,875	478	,000**
Maintaining Communication	,117	478	,000**	,940	478	,000**
Communicating	,064	478	,000**	,974	478	,000**
Content Sharing	,061	478	,000**	,990	478	,002**
Entertainment	,080	478	,000**	,984	478	,000**

*p <.05; ** p <.01

Findings

The findings obtained from the analysis of the data are given below by taking into consideration the sub-objectives of the research and the order of these objectives.

According to Table 3, to the data obtained from school administrators participated in study, it was determined that "Facebook" and "WhatsApp" applications are mostly preferred for social network usage (29.9%).

Table 3. Social network use of school administrators participating in the research

Social Networks Used	**N**	**%**	**Social Networks Used**	**N**	**%**
2-3-4-5-6	1	,2	5	2	,4
2-3-4-5-6-7-8	1	,2	2	3	,6
2-3-4-5-7	1	,2	2-3-5-7	3	,6
2-3-4-5-7	1	,2	2-3-4-5-6	4	,8
2-3-4-5-7-8	1	,2	2-3-8	4	,8
2-3-4-5-8	1	,2	3	4	,8
2-3-4-6	1	,2	3-8	6	1,3
2-3-5-7-8	1	,2	3-5	8	1,7
2-3-6-7	1	,2	8	8	1,7
2-5	1	,2	3-4-5	9	1,9
3-4-5-6	1	,2	3-4	12	2,5
3-4-6	1	,2	2	15	3,1
3-7	1	,2	2-3-4	34	7,1
2-3-4-5	2	,4	2-3-5	56	11,7
2-3-4-5-6-8	2	,4	2-3-4-5	60	12,6
2-3-4-7	2	,4	3	84	17,6
2-3-4-8	2	,4	2-3	143	**29,9**
2-3-7	2	,4			
	Toplam			**478**	**100,0**

(1) None (2) Facebook (3) WhatsApp (4) Twitter (5) Instagram (6) Periscope (7) LinkedIn (8) Other:...

According to Table 4, usage purpose of social networks scale dimension of "Research" average is found as $\acute{X}$ =4,40, where "Collaboration" is $\acute{X}$ =4,65, "Initiating Communication" is $\acute{X}$ =2,46, "Communication" is $\acute{X}$ =4,03, "Communicating" is $\acute{X}$ =3,91, "Content Sharing" is $\acute{X}$ =3,98 and "Entertainment" is $\acute{X}$ =3,95.

Table 4. Arithmetic mean and standard deviation values of school administrators' social network use goals scores

Sub Dimensions	**N**	$\acute{X}$	**Ss**
Research	478	4,40	1,63
Collaboration	478	4,65	1,38
Initiating Communication	478	2,46	1,47
Maintaining Communication	478	4,03	1,60
Communicating	478	3,91	1,52
Content Sharing	478	3,98	1,22
Entertainment	478	3,95	1,24

As a result of the Mann Whitney U test according to Table 5, a significant difference was found in terms of gender variable in only "research", "initiating communication" and "communicating" subscales in the scores of the school administrators' use of social networks scale (p <.05). In the "research" sub-dimension, statistically the mean scores of women were found to be significantly higher than the males (p =, 000). In addition, statistically the mean scores of the males were found to be significantly higher than the females in the subscales of "initiating communication (p =, 045)" and "maintaining communication (p =, 002)".

Table 5. Mann Whitney U Test Table showing the difference between school administrators' scale of use of social networks regarding dimensions scores according to gender variable

Dimensions	Gender	N	$\bar{X}$	Rank Mean	Rank Total	U	p
Research	Female	77	14,93	290,55	22372,50	11507,500	,000**
	Male	401	12,89	229,70	92108,50		
Collaboration	Female	77	28,96	256,54	19753,50	14161,500	,237
	Male	401	27,70	236,23	94727,50		
Initiating Communication	Female	77	6,60	210,82	16233,00	13230,000	,045*
	Male	401	7,56	245,01	98248,00		
Maintaining Communication	Female	77	9,23	224,91	17318,00	14315,000	,002**
	Male	401	9,81	242,30	97163,00		
Communicating	Female	77	15,75	195,36	15043,00	12040,000	,308
	Male	401	17,95	247,98	99438,00		
Content Sharing	Female	77	21,00	237,90	18318,50	15315,500	,912
	Male	401	20,95	239,81	96162,50		
Entertainment	Female	77	10,55	230,30	17733,00	14730,000	,522
	Male	401	10,75	241,27	96748,00		

*p < .05; ** p < .01

According to Table 6, when Kruskal Wallis test results were examined, it was found that scores of school administrators' scale of use of social networks related to dimensions significantly changed according to age of participants (p <.05). According to the results of the Mann Whitney U test conducted to see in favor of which group this difference is meaningful, between the mean scores of sub dimensions of "research (p=,035)" and "cooperation (p=,014)" of scale of usage of social networks of the age range of "31-40" and the age range of "41-50", a statistically significance difference has been found in favor of those aged between "31-40". In case of sub dimensions "content sharing (p =,018)" and "entertainment (p =,097)", a statistically significant difference has been found in favor of those aged between "41-50".

For the "communicating" sub dimension mean scores of scale of usage of social networks of the ones aged "51 years and older "and the age range of "20-30" and the age range of "31-40", a statistically significance difference has been found in favor of those aged "51 years and older" (p =, 048). In addition, for the "content sharing" sub dimension mean scores of scale of usage of social networks of the age range of "20-30" and the age range of "41-50", a statistically significance difference has been found in favor of those aged between "41-50" (p =, 018).

Table 6. Kruskal Wallis Test Table showing the differences of school administrators' social networks use objectives scale regarding dimensions scores according to age variable

Dimensions	Age	N	Rank Mean	Std	χ^2	p	Significant Difference
Research	Age 20-30	21	268,71	3	8.60	,035*	2-3
	Age 31-40	180	259,49				
	Age 41-50	179	219,96				
	51 and over	98	232,22				
Collaboration	Age 20-30	21	254,17	3	10,560	,014*	2-3
	Age 31-40	180	260,84				
	Age 41-50	179	214,34				
	51 and over	98	243,12				
Initiating Communication	Age 20-30	21	270,50	3	3,997	,262	
	Age 31-40	180	240,35				
	Age 41-50	179	226,45				
	51 and over	98	255,14				

Maintaining Communication	Age 20-30	21	285,33	3	7,911	,144		
	Age 31-40	180	255,19					
	Age 41-50	179	229,97					
	51 and over	98	218,27					
Communicating	Age 20-30	21	265,95	3	5,409	,048*	1-4	2-4
	Age 31-40	180	245,34					
	Age 41-50	179	221,71					
	51 and over	98	255,60					
Content Sharing	Age 20-30	21	286,88	3	10,071	,018*	1-3	2-3
	Age 31-40	180	258,67					
	Age 41-50	179	219,74					
	51 and over	98	230,22					
Entertainment	Age 20-30	21	272,62	3	6,323	,097	2-3	
	Age 31-40	180	251,78					
	Age 41-50	179	220,22					
	51 and over	98	245,06					

*p < .05; ** p < .01 1:age 20-30; 2:age 31-40; 3:age 41-50; 4:age 51 and over

As a result of the Mann Whitney U test according to Table 7, a significant difference was found only at "cooperation" and "maintaining communication" sub-dimensions of the school administrators' scale of use of social networks related to dimensions scores in terms of the title variable (p <.05). In the "cooperation" sub-dimension, statistically the mean scores of the school principals were found to be significantly higher than the deputy principals (p =, 033). In the sub-dimension of "establishing communication", statistically the mean scores of the deputy principals were found to be significantly higher than school principals (p =, 030).

Table 7. Mann-Whitney U Test Table showing the difference between the scale of the purpose of using the social networks regarding dimensions scores of the school administrators according to the title variable.

Dimensions	Title	N	Rank Mean	Rank Total	U	p
Research	Principal	272	237,97	64727,50	27599,500	,780
	Deputy Prin.	206	241,52	49753,50		
Collaboration	Principal	272	251,19	68324,50	24835,500	,033*
	Deputy Prin.	206	224,06	46156,50		
Initiating Communication	Principal	272	233,52	63518,00	26390,000	,272
	Deputy Prin.	206	247,39	50963,00		
Maintaining Communication	Principal	272	227,68	61929,50	24801,500	,854
	Deputy Prin.	206	255,10	52551,50		
Communicating	Principal	272	238,49	64868,50	27740,500	,030*
	Deputy Prin.	206	240,84	49612,50		
Content Sharing	Principal	272	233,78	63589,50	26461,500	,298
	Deputy Prin.	206	247,05	50891,50		
Entertainment	Principal	272	246,26	66982,00	26178,000	,217
	Deputy Prin.	206	230,58	47499,00		

*p <.05; ** p <.01

According to Table 8, when the results of Kruskal Wallis test are examined it was found that the scores of school administrators' scale of use of social networks related to dimensions differed significantly according to the education level of the participants (p <.05). According to the results of the Mann Whitney U test conducted in order to see in favor of which group this difference is meaningful, between the mean scores of sub dimensions of "communicating (p=,002)" and " content sharing (p=,002)" of scale of usage of social networks of the educational status of "Postgraduate" and the educational status of "Associate" and "Undergraduate", a statistically significance difference has been found in favor of those aged between "31-40". In case of sub dimensions "content sharing (p =,018)" and "entertainment (p =,097)", a statistically significant difference has been found in favor of those with educational status of "Postgraduate".

Table 8. Kruskal Wallis Test Table showing the difference of scores of school administrators' scale of use of social networks regarding dimensions according to the education level.

Dimensions	Education	N	Rank Mean	Sd	χ^2	p	Significant Difference	
Research	Associate	25	210,00	2	1,427	,490		
	Undergraduate	350	239,49					
	Postgraduate	103	246,71					
Collaboration	Associate	25	245,06	2	4,275	,118		
	Undergraduate	350	231,96					
	Postgraduate	103	263,79					
Initiating Communication	Associate	25	234,42	2	1,025	,599		
	Undergraduate	350	236,31					
	Postgraduate	103	251,56					
Maintaining Communication	Associate	25	199,62	2	12,953	,269		
	Undergraduate	350	230,25					
	Postgraduate	103	280,60					
Communicating	Associate	25	236,66	2	2,625	,002**	1-3	2-3
	Undergraduate	350	233,97					
	Postgraduate	103	258,97					
Content Sharing	Associate	25	186,38	2	11,998	,002**	1-3	2-3
	Undergraduate	350	232,43					
	Postgraduate	103	276,40					
Entertainment	Associate	25	227,68	2	1,013	,603		
	Undergraduate	350	236,98					
	Postgraduate	103	250,94					

*p <.05; ** p < .01 1:Associate; 2:Undergraduate; 3:Postgraduate

According to Table 9 when the results of Kruskal Wallis test are examined, it was found that purposes of school administrators' use of social networks scale was significantly differentiate only in the "research", "cooperation" and "content sharing" sub dimension scores for the service years of the participants (p <,01; p <,05). Mann Whitney U test was conducted to see in favor of which group the difference is meaningful. In the "research" sub dimension of purposes of use of social networks scale; a statistically significant difference was found in favor of those who were in "0-5" years' of service between mean scores of "0-5" years' of service and "16-20" years' of service (p =, 040). In the "cooperation" sub dimension of purposes of use of social networks scale; a statistically significant difference was found in favor of those who were in "0-5" and "6-10" years' of service between mean scores of "16-20" years' of service and mean scores of "0-5" and "6-10" years' of service (p =, 040). In the "content sharing" sub dimension of purposes of use of social networks scale; a statistically significant difference was found in favor of those who were in "0-5" years' of service between mean scores of "0-5" years' of service and mean scores of "11-15" and "16-20" and "21 years and above" years' of service (p =, 006). a similar result, a statistically significant difference was found in favor of those who were in "6-10" years' of service between mean scores of "6-10" years' of service and mean scores of "11-15" and "16-20" and "21 years and above" years' of service (p =, 006).

Table 9. Kruskal Wallis Test Table showing the difference of scores of school administrators' scale of use of social networks regarding dimensions according to the service years.

Dimensions	Service Years	N	$\bar{X}$	Rank Mean	Sd	χ^2	p	Significant Difference	
Research	0-5 years	27	15,51	303,70	4	10,008	,040*	1-4	
	6-10 years	60	13,85	258,56					
	11-15 years	99	13,56	248,53					
	16-20 years	111	12,65	227,77					
	21 years and more	181	12,82	225,86					
Collaboration	0-5 years	27	31,00	283,24	4	10,003	,040*	1-4	2-4
	6-10 years	60	29,93	269,16					
	11-15 years	99	27,91	240,74					
	16-20 years	111	26,04	211,67					
	21 years and more	181	27,90	239,53					

Initiating Communication	0-5 years	27	8,25	250,78	4	3,093	,542	
	6-10 years	60	7,81	253,53				
	11-15 years	99	6,69	226,00				
	16-20 years	111	7,23	228,47				
	21 years and more	181	7,64	247,31				
Maintaining Communication	0-5 years	27	10,70	283,09	4	8,127	,102	
	6-10 years	60	10,40	270,28				
	11-15 years	99	9,72	241,40				
	16-20 years	111	9,55	235,61				
	21 years and more	181	9,44	224,14				
Communicating	0-5 years	27	20,21	294,22	4	7,717	,087	
	6-10 years	60	18,08	250,95				
	11-15 years	99	17,93	243,42				
	16-20 years	111	16,62	216,94				
	21 years and more	181	17,45	239,23				
Content Sharing	0-5 years	27	23,66	290,91	4	14,291	,006**	1-3 1-4 1-5 2-3 2-4 2-5
	6-10 years	60	23,08	289,43				
	11-15 years	99	20,72	232,04				
	16-20 years	111	20,37	227,22				
	21 years and more	181	20,96	226,90				
Entertainment	0-5 years	27	11,85	272,91	4	6,922	,140	
	6-10 years	60	11,60	267,02				
	11-15 years	99	10,70	236,58				
	16-20 years	111	10,12	217,35				
	21 years and more	181	10,63	240,58				

*p <.05; ** p < .01 1:0-5 years; 2:6-10 years; 3:11-15 years; 4:16-20 years; 5: 21 years and more

Results, Conclusions and Recommendations

Based on the findings obtained from the opinions of school administrators on the use of social networks, the results and discussions reached in the research are as follows:

It's assessed that the school administrators who participated in the research prefer "Facebook" and "WhatsApp" applications as social media usage. Keskin (2014) also stated that Facebook is preferred at most as social network choice in his research conducted by using scale of purpose of usage of social networks. According to the results of Kuzu (2014) 's research on prospective teachers, the first network used by teacher candidates in their daily lives is expressed as Facebook. Similarly, Çavdar (2012) found Facebook as the most time-spent social network. According to many researches carried out in different masses, it is seen that Facebook is the most used application among social networks (Luckin et al., 2009; Leila and Khodabandelou, 2013). According to all these results, it can be suggested that Facebook is the most preferred social media usage.

It has also been found out that "cooperation" dimension has the highest point among school administrators' use of social networks and "initiating communication" dimension has the lowest value. Keskin (2014) found in his research on teachers, teacher candidates and students that the highest scores related to the purposes of using social networks belonged to use for initiating communicating and maintaining communication while the lowest average scores belonged to use for initiating communication, content sharing and research purposes. Çavdar (2012) also found that social networks were used primarily for communication purposes. According to those mentioned, it can be argued that people in the education sector use social media more for communication purposes.

It can be said that female school administrators use social networks more for research than male. Çavdar (2012) stated that the female teachers used social networks more for social interaction and educational purposes than males. It can be said that male school administrators use social networks to start communication and maintain communication more than women. Çavdar (2012) also found that boys use social networks more for entertainment than girls. Kırksekiz (2013), in his study on teaching staff, found that Facebook usage purpose levels of women are higher than men in terms of gender variable.

It can be said that the school administrators who are in the "31-40" age range use social networks for more research and cooperation purposes than the age range "41-50". It can be said that the "41-50" age group

uses social networks for content sharing and entertainment. In addition, it can be said that school administrators use social media to communicate as their age increases.

School principals can be said to use social networks for cooperation more than vice-principals. It can be said that deputy directors use social networks to establish communication more than school principals.

It can be said that school administrators use social media to communicate and share content as their education level increases. It can be said that school administrator's usage of social media in the first 10 years of service years is to provide cooperation. It can be said that the school administrators' use of social media for content sharing decreases after the 11th years of service. It has been determined that school administrators who are employed in state or private schools do not change the purpose of using social networks. According to this, it can be said that the use of social networks does not change as the institutions of the school administrators change.

According to the results, suggestions for the implementation and future researches can be listed as follows:

- School administrators can be guided on using social networks for rightful purposes with the help of in-service training on social networks and deliberate activities.
- Sharing of information like the activities in the school, making announcements, performing decisions taken in meetings, etc. by school administrators through social networks can strengthen the perception of school council collaboration and innovation, and therefore all school administrators can actively recommend using social media.
- These or similar studies should be repeated within certain time periods. Because, it is necessary to find out how the school administrators can adapt to the rapidly developing and constantly changing technology.
- This research is also applicable to teachers.
- The purpose of school administrators' use of social networks can also be investigated by using different scales.
- Quantitative methods were used in data collection and analysis. By using qualitative methods and techniques, different and explanatory results can be achieved on same subject.
- Conducting this research in other cities may add more dimensions to research.

Studies can be done to reveal the relationship between school administrators and the various factors that might have an impact on the use of social networks.

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The Relationship Between Teachers' Organizational Climate Perceptions and Attitudes Toward Change Resistance

Murat OKAR[1], Bahri AYDIN[2]
[1]Teacher, Ministry of National Education, ORCID: 0000-0002-4909-6803
[2]Assoc. Prof. Dr., Bolu Abant İzzet Baysal University, Faculty of Education, Department of Education Sciences, ORCID: 0000-0002-1720-6334,
Email: muratokar@gmail.com, bahriaydin@hotmail.com

Abstract
The purpose of this study is to determine the relationship between teachers' organizational climate perceptions and attitudes towards resistance to change. The study consisted of 791 teachers working in public secondary schools in the province center of Bolu in 2016-2017academic year. For sampling, random sampling method was utilized and the research was carried out with 424 teachers. Teachers' perceptions on the attitudes of resistance to organizational change is at low level. When the scores related to the subscales of the change resistance scale were examined, it was determined that the highest score was the emotional response dimension and the lowest score was the routine search dimension. There were a positive direction low level relationship between the subscales of organizational climate and the overall change resistance in general.

Key words: Organizational Climate, School Climate, Resistance to Change

Introduction

Organizations, which are a social system, are in constant exchange with the external environment. This exchange might be technically and economically or human-sourced. The most important component of the organizations is human. People who make organizations dynamic are accepted and work in the organization with their knowledge, skills, manners, experiences, thoughts and beliefs or their cultures. Organizations are also composed of individuals with different cultures. As a natural consequence of being a group these individuals have formed partly a common system of beliefs and values different from other organizations. The formed system represents the unique climate of the organization (Acet. 2006).

Organizations, like human beings, develop a unique personality by being influenced by the surrounding environment. This personality, which also affects the people working in the organization, forms a climate specific to the organization by shaping the objectives, structure and internal relations of the organization. This climate that constitutes the identity of the organization is reflected in both the product and service of the organization and all kinds of behavior of its employees. According to organizational change experts, if a change in the behaviors within the organization is desired, firstly, there should be a change in the structure that manages the behaviors, that is, the organizational climate which is the reference of the behaviors of the members of the organization (Schneider, 1975; cited: Varlı, 2015).

Organizational climate has been an area of interest for researchers since it affects organizational behavior. According to Hoy and Miskel (2005), school climate has a significant impact on organizational behavior. Therefore, it is important to define and analyze school climates since principals can have a positive impact on the personality development of the school (Akbaba-Altun & Memişoğlu, 2011). Bursalıoğlu (2012) also identifies two important factors affecting the organizational climate as teachers and principals.

School climate is a very important concept that reflects the perceptions of the members of the school related to the working environment in their schools and for the achievement of the purposes of educational activities. The organizational climate of the school is a set of internal characteristics that affect teachers' performance and differ from other schools. The way to understand the climate in school is to understand the behavior of the members in the school. Understanding the attitudes and behaviors of the organization's members in relation to the school they work in will enable the members of the organization to understand the impact of the organization's ability to achieve its goals and organizational structure (Demir, 2008).

In today's world where change is growing at an unprecedented pace, organizations need organizational change in order to survive and achieve their goals. Organizational change is essential and inevitable for organizations to maintain their efficiency and effectiveness. The biggest obstacle to these changes that managers plan to realize in organizational policy, technological elements and whether organizational

structure or employees is the attitude and behavior of the employees to be affected by the change. In order to prevent these attitudes and behaviors against change within organizations, organizations can achieve success by preparing their employees for change (Kuyumcu, 2011).

With the rapid changes experienced in our period, the needs of individuals are differentiated and the demand for education is increasing. This puts pressure on educational organizations and encourages them to change and revisit their assumed roles. Educational organizations should not be insensitive to the changes that take place in the society in order to avoid being behind the period and more importantly, to keep up with the period by changing at the same speed with the changes (Kulu, 2007). Adapting to changing conditions is not as easy as it seems, often with a situation that resists change. There is not an immediate acceptance and adaptation for change in the structure of mankind. People oppose norms and values that are different from their own values. Resistance to change is closely related to the exclusion of individuals affected by the change in the decision making process during the preparation of the roadmap of change. Change is a process that involves a transition from known to unknown, disturbing individuals, causing them to be anxious and worried (Helvacı, 2015). Therefore, the changes are inevitably painful (Çetin, 2008). Resistance to change, which is expressed as unwillingness to support the desired change in the organization, is seen as the biggest obstacle to the success of organizational change (Mullins, 2005; cited: Turan, 2014). As for all organizations, it is extremely important for educational institutions to maintain their existence and effectiveness. However, for individual and organizational reasons, changes can often be resisted. It is thought that one way of eliminating the resistance shown is to be possible by creating a positive climate in schools. In this context, the way organizations can successfully implement the planned changes even overcoming resistances is through the establishment of a positive organizational climate by their managers. Whereas a positive organizational climate can accelerate change, a negative organizational climate can prevent change (Şişman, 2014). When all these issues are taken into consideration, organizational climate perceptions of teachers and attitudes towards resisting change are correlated and this situation necessitates a research on this subject.

Method

Research Goal

The purpose of the study is to determine the relationship between teachers' perceptions of organizational climate and attitudes towards resistance to change. For this purpose,

1- What are the opinions of the teachers about the organizational climate and resistance to change?

2- Isf there a significant relationship between teachers' perceptions of organizational climate and their attitudes towards resistance to change?

Research Design

The purpose of this study is to determine the relationship between teachers' perceptions of organizational climate and resistance to change in line with the opinions of teachers working in secondary education institutions. In this context, it is a quantitative study in relational screening model. The relational screening model is a research model that aims to determine the existence and degree of change together between two and more variables and enters into the general screening method (Karasar, 2012).

Participants and Sampling

The study consisted of 791 teachers working in public secondary schools in the city center of Bolu in the academic year of 2016-2017. The number of teachers of the schools in which the research will be conducted was requested from the Bolu Provincial Directorate of National Education by the official letter and the Bolu Provincial Directorate of National Education reported the number of teachers on 24.01.2017. The sampling of the study was determined by random sampling method and data were collected from 424 teachers.

The gender, age, educational background, type of school, current period and professional seniority of the teachers participating in the research are shown in Table 1.

When Table 1 is examined, 227 (53.5%) of the 424 teachers participated in the research were female and 197 (46.5%) were male teachers. 67 (15.8%) of the teachers were between the ages of 21-30, 192 (45.3%) were between the ages of 31-40 and 165 (38.9%) were 41 years and over. 334 of them (78.8%) were graduates and 90 (21.2%) were postgraduates. 205 (48.3%) of the teachers in Vocational and Technical Anatolian High Schools, 135 of them (31.9%) in Anatolian High Schools, 50 (11.8%) of them in Science High Schools/Social Sciences High School/Fine Arts High School/Sports High School, 34 (8.0%) of them are working in Anatolian Imam Hatip High School. Looking at the current working period of the

teachers in the school, 132 (31.1%) were between 0-2 years, 82 (19.3%) were between 3-4 years, 94 (22.2%) were between 5-8 years 116 (27.4%) were more than 8 years. 74 (17.5%) of the teachers were 0-5 years, 61 (14.4%) were 6-10 years, 85 (20.0%) were 11-15 years and 204 (48%) were 1) 16 years of professional seniority.

Table 1. Demographic distribution of teachers participating in the research

Variables		**f**	**%**
Gender	Female	227	53.5
	Male	197	46.5
Age	21-30	67	15.8
	31-40	192	45.3
	41 years old and over	165	38.9
Educational Background	Graduate	334	78.8
	Postgraduate	90	21.2
Type of School	Voc. and Tech. Anatolian HS	205	48.3
	Anatolian HS	135	31.9
	Science/Social/Fine Arts/Sports HS	50	11.8
	Anatolian Religious Vocational HS	34	8.0
Current Working Period in the School	0-2 years	132	31.1
	3-4 years	82	19.3
	5-8 years	94	22.2
	8 years and over	116	27.4
Professional Seniority	0-5 years	74	17.5
	6-10 years	61	14.4
	11-15 years	85	20.0
	16 years and over	204	48.1
	Total	424	100

Data Collection Tool

Personal Information Form, Organizational Climate Scale and Resistance to Change Scale were used as data collection tools in order to examine the organizational climate perceptions and attitudes of resistance to change among the teachers working in secondary education institutions. Information about the data collection tools used is given below.

Personal Information Form

The personal information form was prepared to obtain demographic information that is thought to affect the participants' perceptions of organizational climate such as gender, age, educational status, type of school they work in, current working period and professional seniority and attitudes of resistance to change.

Organizational Climate Scale

Organizational Climate Scale was developed by Hoy and Tarter (1997) and adapted to Turkish by Yılmaz and Altınkurt (2013). The permission to use the scale was obtained. The scale consists of 39 items and is in four-point Likert type.

The first subscale of the scale, which has six subscales, consists of nine items, "Supportive Principal Behavior" consists of nine items, the second subscale "Directive Principal Behavior" consists of seven items, the third subscale "Restrictive Principal Behavior" consists of five items, the fourth subscale "Intimate Teacher Behavior" consists of seven items, the fifth subscale" Collegial Teacher Behavior "consists of seven items and the sixth subscale "Disengaged Teacher Behavior"consists of four items.

Yilmaz and Altınkurt (2013) figure out that the internal consistency coefficients of the subscales of the scale were .89 in the Supportive Principal Behavior subscale, .78 in the Directive Principal Behavior subscale, .73 in the Restrictive Principal Behavior subscale and 0.82 in the Initimate Teacher Behavior

subscale, .80 in the Collegial Teacher Behavior subscale, 0.70 in the Disengaged Teacher Behavior subscale. Cronbach Alpha value of the scale was calculated as 0.82. The scale has six factors and explained 51% of the total variance. Three of these factors measure the school principal's behaviors and three of them measure teacher behaviors.

Table 2. Subdimensions of organizational climate scale

Organizational Climate Scales	Scale Item Numbers
Supportive Principal Behavior	1-9
Directive Principal Behavior	10-16
Restrictive Principal Behavior	17-21
Intimate Teacher Behavior	22-28
Collegial Teacher Behavior	29-35
Disengaged Teacher Behavior	36-39

In the reliability study conducted in this research, the internal consistency coefficient Cronbach's Alpha value is .94 in the subscale of Supportive Principal Behavior, .83 in the Directive Principal Behavior subscale, .81 in the subscale of Restrictive Principal Behavior, .91 in the Initimate Teacher Behavior subscale, .75 in the Collegial Teacher Behavior subscale, 0.67 in the Disengaged Teacher Behavior subscale. Cronbach's alpha value of the whole scale was calculated as .86. As a result of exploratory factor analysis, it was determined that the items in the scale were collected under six factors.

A four-point Likert-type rating scale was used in the organizational climate scale. In the interpretation of the options in the scale, Rare happens (1.00-1.74), Sometimes happens (1.75-2.49), Usually happens (2.50-3.24) and Very often (3.25-4.00) evaluations were taken into consideration.

The increase in the score obtained from each factor in the Organizational Climate Scale indicates the increase in behaviors in that factor affecting the organizational climate. For example, the high score obtained from the “Supportive Principal Behavior” factor is interpreted as follows: the school principal has more supportive behaviors, or the high score obtained from the “Directive Principal Behavior” factor is interpreted as follows: the school principal has more directive behaviors. Total score is not taken from the whole scale (Yılmaz and Altınkurt, 2013).

Resistance to Change Scale

It is a scale developed by Oreg (2006) and adapted into Turkish by Kurt (2010) in order to measure teachers' attitude toward resistance to change. The permission to use the scale was obtained. The scale consists of 17 items and is a five-point Likert type.

Table 3. Subdimensions of resistance to change scale

Scales for Resistance to Change	Scale Item Numbers
Routine Search	1-5
Emotional Response	6-9
Short Term Thinking	10-13
Cognitive Rigidity	14-17

The first subscale “routine search” of the scale, which has four subscales, consists of five items, the second subscale “emotional responses” consists of four items, the third subscale “short term thinking” consists of four items, and the fourth subscale “cognitive rigidity” consists of four items.

Kurt (2010) stated that internal consistency coefficients of the subscales of the scale were .73 in routine search subscale, .73 in emotional response subscales, .83 in short term thinking subscale, and .63 in cognitive rigidity subscales. Cronbach Alpha value of the scale was calculated as 0.89.

In the reliability study conducted in this research, the internal consistency coefficient, Cronbach's Alpha value, was calculated as .60 in the routine search subscale, .64 in the emotional response subscale, .68 in the short term thinking subscale, and .55 in the cognitive rigidity subscale. Cronbach's alpha value of the whole scale was calculated as .80. As a result of exploratory factor analysis, it was determined that the items in the scale were collected under four factors.

A five-point Likert-type rating scale was used in resistance to change scale. In the interpretation of the options included in scale, the ratings of Strongly Disagree (1.00-1.79), Disagree (1.80-2.59), Partly Agree (2.60-3.39), Agree (3.40-4.19) and Completely Agree (4.20-5.00) evaluations were considered.

Implementation of the Data Collection Tool

The data collection tool was applied to the teachers working in secondary schools in the central district of Bolu by the researcher. Necessary permissions were obtained before the interviews.

Data Analysis

Statistical analysis of the data gathered within the scope of the research was performed using SPSS 20 (Statistical Package for the Social Sciences) program. Kolmogorov-Smirnov analysis was used to determine whether the data were normally distributed in order to determine which analyzes would be performed on the data obtained for the sub-problems. The test results are shown in Table 4.

Table 4. The results of normal distribution test (Kolmogorov-Smirnov) of organizational climate scale and resistance to change scale

Scale	N	$\bar{x}$	Statistics	Sd	p
Organizational Climate Scale	424	2.54	.048	424	.018*
Resistance to Change Scale	424	2.61	.060	424	.001*

* There is a significant difference (p <0.05)

According to the results of Kolmogorov-Smirnov test, it was revealed that the data obtained did not show normal distribution (p <.05). For this reason, taking into account the sub-problems of the research, arithmetic mean, standard deviation and Spearman rho correlation analysis were used. In the analysis of the data, the level of significance was accepted as 0.05.

Findings

In this section, findings and interpretations related to the analysis of the data collected through scale tools related to the solution of the research problem are presented in line with the sub-problems.

Table 5. Mean and standard deviation values of teachers' related to organizational climate scale

Scale	*Subscale*	n	$\bar{x}$	SD
Organizational Climate	*Supportive Principal Behaviour*	424	2.94	.73
	Directive Principal Behaviour	424	2.16	.68
	Restrictive Principal Behaviour	424	2.49	.77
	Initimate Teacher Behavior	424	2.53	.72
	Collegial Teacher Behavior	424	2.77	.49
	Disengaged Teacher Behavior	424	2.00	.66

Findings and Comments Related to the First Sub-Problem

The first sub-problem regarding the research teachers' opinions in terms of organizational climate perceptions is based on arithmetic mean and standard deviation values are given in Table 5.

According to the results of the analysis in Table 5, the teachers participating in the research; school principals were found to exhibit supportive principal behavior ($\bar{x}$ = 2.94, usually happens), restrictive

principal behavior ($\bar{x}$ = 2.49, sometimes happens) and directive principal behavior ($\bar{x}$ = 2.16, sometimes happens), respectively. The scale of supportive principals behavior includes behaviors such as appreciation of teachers, behaving equally, assisting, making constructive criticism and taking into consideration the suggestions of teachers. Principals motivate teachers and make them feel that they care about them at every opportunity. The scale of directive principal behavior includes autocratic executive behaviors that use a firm hand. Principals examine and follow everything, such as lesson plans, school and classroom activities, whether teachers come to school on time. The restrictive principal behavior scale is the behavior scale in which teachers are overwhelmed by the intensity of work and the principal assigns too many extracurricular tasks to the teachers, which interfere with educational activities such as stationery works and commission membership. The higher arithmetic mean scores of teachers' subscales of supportive behavior of subordinate behaviors and restrictive principal behavior subscale scores may be related to the positive aspect of school climate related to principal behaviors.

The teachers who participated in the research thought that they exhibited collegial teacher behavior ($\bar{x}$= 2.77, usually happens), initimate teacher behavior ($\bar{x}$= 2.53, usually) and disengaged teacher behavior ($\bar{x}$= 2.00, sometimes), respectively. The scale of collegial teacher behavior means that teachers enjoy their duties and are proud of their schools, support other teachers, respect their competence and be tolerant of their mistakes. The scale of intimate teacher behavior is related to the intimacy of the teachers, to know each other and their families well, to invite them to their homes, to be close friends and to meet frequently to spend time together. The scale of disengaged teacher behavior includes that the teachers see the meetings as useless, remove the subject from the purpose in the meetings, exhibit opposing behaviors in every subject, and become disengaged and irrelevant. The low arithmetic mean scores of the subscales of teachers' collegial teacher behavior and initimate teacher behavior subscales and the low scores of the disengaged teacher behavior subscale may be related to the positive aspect of school climate regarding teacher behaviors.

Based on these findings, it can be said that open climate type characteristics are seen in schools. However, in this study, it is a finding to be emphasized that teachers' opinions about the restrictive principal behavior scale in their schools ($\bar{x}$ = 2.49, s = .77) are close to medium level. Because, in schools where the open climate type is dominant, restrictive principal behaviors are expected to be quite low. In consideration of this information, open climate type behaviors prevail in schools such as the principal's support for teachers, paying attention to the suggestions from the teachers, the pleasure of the teachers, the pride on their schools, the support of each other, the respect of the competence of the other teachers and the tolerance of their mistakes; on the other hand, teachers' overwhelming workload, stationery work, and commissioning too many extracurricular tasks that interfere with educational activities such as commission membership indicate that principals exhibit restrictive behaviors.

Teachers' opinions about the attitude of resistance to change are given in Table 6 based on the arithmetic mean and standard deviation values.

According to the results of the analysis in Table 6, it is seen that the opinions of the teachers who participated in the research on the attitude of resistance to change are at the level of "partially agree" with an average score of $\bar{x}$ = 2.61. Accordingly, it can be said that teachers' attitudes towards resistance to change are low, being open to change and innovation, and on the other hand, have negative attitudes towards change. In other words, when it comes to change, teachers are uneasy and do not want to change their habits. This finding can be interpreted as if teachers feel the need for change and believe that change is necessary, they will not resist the changes to be made.

According to the results of the analysis in Table 6, it is seen that the scale of resistance to change of the teachers who participated in the research expressed opinions at the level of "disagree" with an average value of $\bar{x}$ = 2.25 to the items in the scale of "routine search" and $\bar{x}$ = 2.47 to the items in the scale of "short-term thinking ". This finding shows that teachers do not perceive change as negative, prefer an ordinary day instead of a routine day, and seek ways to change during periods of stagnant life. In addition, it is seen that long-term behaviors that are open to development potential are preferred over short-term behaviors.

It is seen that the scale of resistance to change of the teachers expressed opinions at the level of "partially participated" with an average value of $\bar{x}$ = 2.93 to items in the scale of "emotional response" and $\bar{x}$ = 2.86 to the items in the scale of "cognitive rigidity". This finding shows that teachers feel themselves uncomfortable and stressed in the situations of change, therefore their emotional response is moderate. It is important to emphasize that teachers feel emotionally stressed when change occurs. In addition, it can be said that when teachers make a decision, they do not change their decisions partially, but show moderate cognitive rigidity.

Table 6. Mean and standard deviation values of teachers' responses to the scale of resistance to change

Scale	Subscale	n	x̄	SD
Resistance to Change	Routine Search	424	2.25	.64
	Emotional Response	424	2.93	.69
	Short Term Thinking	424	2.47	.70
	Cognitive Rigidity	424	2.86	.63
	Total	424	2.61	.49

Findings and Comments on the Second Sub-Problem

The data obtained as a result of Spearman Rho correlation analysis conducted to determine whether there is a significant relationship between organizational climate perceptions and attitudes towards resistance to change, which is the second sub-problem of the study, is shown in Table 7.

Table 7 shows the results of Spearman Rho correlation analysis conducted to determine the relationship between teachers' organizational climate perceptions and attitudes towards resistance to change. According to the results of this analysis, it is found that there is a positive and low-level relationship between the subscales of directive principal behaviors of organizational climate and the emotional response (r=.14, p<.01), short-term thinking (r=.16, p<.01), cognitive rigidity (r=.16, p<.01) subscales of resistance to change and resistance to change in general (r=.17, p<.01). According to this, it can be said that the teachers' attitudes towards resistance to change increased as the directive behaviors of school principals increased.

Table 7. The relationship between teachers' perceptions of organizational climate and resistance to change

	Rotine		**Emotional**		**Short Term**		**Cognitive**		**Resistance**	
	r	p	r	p	r	p	r	p	r	p
Supportive Principal Behaviour	-.04	.40	-.06	.16	-.02	.58	.01	.68	-.03	.48
Directive Principal Behaviour	.03	.48	.14**	.00	.16**	.00	.16**	.00	.17**	.00
Restrictive Principal Behaviour	.10*	.02	.13**	.00	.13**	.00	.13**	.00	.16**	.00
Initimate Teacher Behaviour	.07	.13	.00	.92	.09	.05	.07	.12	.07	.13
Collegial Teacher Behaviour	-.02	.57	-.08	.08	.02	.61	.00	.91	-.02	.63
Disengaged Teacher Behaviour	.14**	.00	.09	.06	.10*	.03	.06	.15	.14**	.00

* There is a significant difference (p<0,05), ** There is a significant difference (p<0,01)

It is found that there is a positive and low-level statistically significant relationship between the restrictive principal behaviors' subscale of organizational climate and the routine search (r=.10, p<.05), emotional response (r = .13, p <.01), short-term thinking (r=.13, p<.01), cognitive rigidity (r=.13, p<.01) subscales of resistance to change and resistance to change in general (r=.16, p<.01). Accordingly, it can be

said that as the restrictive behaviors of school principals increase, teachers' resistance to change increases at a low level.

There is a positive and low level statistically significant relationship between the subscales of disengaged teacher behaviors of organizational climate and routine search (r=.14, p<.01) of resistance to change, short-term thinking (r=.10, p<.05) subscales of resistance to change and resistance to change in general (r=.14, p<.01). According to this, it can be pointed out that teachers' attitudes towards resistance to change also increased as the disengaged behaviors of teachers increased.

In addition to the results of this analysis, a negative and low level relationship was found between the supportive principal behaviors subscale of organizational climate and the routine search, emotional response, short-term thinking of resistance to change and resistance to change in general. This relationship was not statistically significant (p> .05). However, it can be said that as the supportive behaviors of school principals increase, teachers' attitudes towards resistance to change will decrease at a very low level. According to this, it can be stated that teachers' attitudes towards resistance to change will decrease at a very low level when the educational principals increase supportive behaviors.

Results, Conclusions and Recommendations

In this study, the relationship between teachers' perceptions of organizational climate and resistance to change is examined in line with the opinions of secondary school teachers. The following results were reached in the research.

According to the results of the research; it is found that school principals are generally supportive; in addition, exhibit restrictive and directive behaviors, respectively. Accordingly, the fact that the scores of the supportive principal behavior is higher than the scores of directive and restrictive principal behavior shows that the school climate has a positive aspect regarding the principal behaviors. On the other hand, collegial teacher behavior and initimate teacher behavior are generally observed, and disengaged teacher behavior is partially observed among teachers. Accordingly, the high scores of teachers' collaborative teacher behaviors and initimate teacher behaviors, and low scores of disengaged teacher behaviors indicate that the school climate has also positive aspect regarding teacher behaviors. These findings show that open climate type characteristics are seen in schools. However, the fact that teachers' opinions about restrictive principal behaviors in their schools are close to the middle level can be considered as an important result. Because it is expected that restrictive principal behaviors will be low in schools where the open climate type prevails. Similar results were also obtained in the study by Yurter (2016), Şenel (2015) and Öztürk (2014). Yurter (2016) concluded that the restrictive behaviors of principals are above the middle level in his research, that examines the relationship between school climate and organizational creativity behaviors in primary and secondary schools. Şenel (2015) concluded that "Disengaged Teacher Behavior" were low in his research, that examined the relationship between school climate and school effectiveness. Öztürk (2014) found that preschool principals examined the relationship between creative leadership characteristics and school climate and found that school climate was generally above the middle level.

Total scale scores of teachers' opinions about resistance to change are low. This situation reveals that teachers are open to innovation and show low resistance to change. Teachers have a low level of participation in expressions in the scale of “routine search” of resistance to change scale. This result shows that teachers do not perceive change as negative, instead of doing the same things every day, they look for ways to change by going out of their routine life. Teachers partially agree with the scale of “emotional response” of resistance to change scale. This result shows that teachers feel emotionally disturbed and stressed at times of change. It is important to emphasize that teachers feel emotionally disturbed when change occurs. Teachers have a low level of participation in expressions in the scale of “short-term thinking” of resistance to change scale. This result shows that teacher behaviors that require short-term thinking are low and so they are not only thinking about today, they are open to changes that will contribute to them for further. Teachers partially agree with the scale of “cognitive rigidity” of the resistance to change scale. This result shows that teachers do not easily change their minds, they do not give up that decision at least partially when they make a decision and they are moderately rigid. Similar results were also obtained in the study by Köktürk (2016) and Kurt (2010). Köktürk (2016) stated that the resistance to change of teachers was low and that teachers had negative attitudes towards the changes from time to time. Kurt (2010) stated that, when all subscales were considered together, resistance to change levels of teachers were low or moderate, teachers were generally open to innovation and their resistance to change levels remained low. Ergen (2015) stated that in general, teachers think that their schools are open to change and they lean towards to change. In a study conducted by Çakır (2009), it was

determined that teachers working in primary schools had less tendency to resistance to change, that is, teachers were generally open to change. In the study conducted by Demirtaş (2012), teachers evaluated their schools as open to change at a level of "mostly". On the other hand, in the research of Gürses and Helvacı (2011), Korkut (2009) and Kurşunoğlu (2006), it was stated that teachers' attitudes towards organizational change were "moderate".

The relationship between teachers' perceptions of organizational climate and their attitudes towards resistance to change was examined. Accordingly, there was a positive and low-level significant relationship between the directive principal behaviors of organizational climate and emotional response, short-term thinking, cognitive stiffness sub-dimension of resistance to change and resistance to change in general. Accordingly, as the directive behaviors of principals increase, teachers' attitudes towards resistance to change are increasing at a low level.

There was a positive and low-level significant relationship between the restrictive principal behaviors sub-dimension of organizational climate and the routine search, emotional response, short-term thinking, cognitive rigidity sub-dimension of resistance to change and resistance to change in general. Accordingly, as the restrictive behaviors of principals increase, teachers' attitudes to resistance to change increase at a low level.

There was a positive and low-level significant relationship between disengaged teacher behaviors sub-dimension of organizational climate and the routine search, short-term thinking sub-dimension of resistance to change, and resistance to change in general. Accordingly, as teachers disengaged behavior increases, teachers' attitudes towards resistance to change also increase at a low level.

In addition, a negative and low level relationship was found between supportive principal behaviors sub-dimension of organizational climate and routine search, emotional response, short-term thinking sub-dimension of resistance to change and resistance to change in general. This relationship was not statistically significant. However, as the principals' supportive behaviors increase, teachers' attitudes to resistance to change decrease to a very low level. According to this,it can be said that teachers' attitudes towards resistance to change will decrease at a very low level when they increase the supportive behaviors of educational principals. A principal who feels the need for change in his school should try to make the change by supporting teachers to avoid resistance to change. Otherwise, teachers can resist change. In addition, as the restrictive behaviors of the principals increase, the attitudes of teachers to resist change increase at a low level. Therefore, jobs that hinder educational activities such as paperwork, commission membership and create extra workload should not be given to the same teachers, and the distribution of duties should be done fairly. In addition, qualitative researches about resistance to change can be carried out and the reasons of teachers' resistance behavior can be examined in detail.

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Technology Leadership Competencies of School Principals

Hüseyin DİNÇ[1], Süleyman GÖKSOY[2]
[1]Asistan Director, Gümüşova Primary School
ORCID ID: 0000-0002-2071-5017
[2]Doc.Dr. Düzce University, Faculty of Education, Department of Education Sciences
ORCID ID: 0000-0002-7151-0863
Email: huseyin_dinc@msn.com, suleymangoksoy@duzce.edu.tr

Abstract
The aim of this study is to investigate the technology leadership competencies of school principals. According to the opinions of school principals and teachers working in public kindergartens, primary schools, secondary schools and high schools in Düzce province center and districts, technology leadership competencies used by school principals were examined in terms of various demographic variables. In this research, principals (149) and teachers (373) in state kindergartens, primary schools, secondary schools and high schools working in Düzce province in the 2018-2019 academic year were taken as sampling by using stratified sampling method. Perceptions of school principals and school principals about technology leadership competencies were measured by Technology Leadership Competence Scale of Educational Administrators covering NETS-A standards. According to the results of the study, it is seen that the technology leadership competencies on a total scale provide a great deal in the perception of school principals. Managers' perceptions, the highest in the field of digital citizenship; In the field of systematic development, they have the lowest average. There was a significant difference in school principals' attitudes towards technology leadership competence according to gender. In the perception of visionary leadership, digital age learning culture, digital citizenship and technology leadership competence in total scale, it is seen that the male school principals' perception of competence is higher than female school principals. According to the variable, the level of technology leadership of kindergarten principals was found to be low. According to the teachers, the technology leadership competencies of the principals are provided at a medium level, there is no significant difference in the gender variable and it can be said that the technology leadership competencies of the 31-40 age group managers are at a higher level. There is no significant difference between demographic variables such as seniority, education level and institution variables.

Key words: School principals, technology, leadership, competencies

Introduction

In today's world, which is described as an information society, it has become imperative to follow the current trends emerging in traditional education and training understanding and to train the individuals in need, by shaping the information technologies with the educational dimension (Bülbül and Çuhadar, 2011). This situation occurs as a result of the increase in information and skills of individuals as a result of developments in information technologies. Aksoy (2003) states that there is a mass of students who use computers, mobile phones, and social media in daily life. The teaching-learning and management process is moved to the network environment with information systems such as E-school, Mebbis, and there are changes in the access of teachers, students and parents to information resources. With this change, the importance of educational technologies is increasing day by day (Brooks-Young, 2002). For this reason, in order for today's education system to adapt to the information society, it is necessary to provide up-to-date and re-setting the goals to meet the needs of the age (Genç, 2000).

The aim of education is to train creative and innovative people. Çalık and Sezgin (2005) emphasizes not to transfer information directly to the individual, but what ways the individual should be taught to reach the information he / she needs. According to Numanoğlu (1999), educational institutions should have a multifunctional structure that aims to develop an original and creative thinking in the student, a safe environment in which information is processed, includes teamwork, is open to use at all hours of the day, and where the new information needs of the society are met. Therefore, schools need to be equipped with information and communication technologies in order to achieve the goals of the information society. When the relevant literature is examined, it is seen that school principals have great responsibilities in using educational technologies effectively in educational environments. Especially Deryakulu and Olkun (2009) of existing resources in developing countries like Turkey to be integrated with the educational technology

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leadership of school administrators' technology to fulfill their responsibilities extremely important that they express. With the integration of technology in education in all areas, it is stated by school administrators that they should have some competencies (Afshari, Bakar, Luan, Samah and Fooi, 2009) and it is emphasized that school administrators should lead technology use in management and teaching related practices in technology use. In addition, it has been stated that school administrators do not include formal educational activities called "Integration of Information Technologies (IT) into Education" in which they can fulfill their duties and responsibilities in the process of integrating technology with education (MEB, 2004). This situation reveals the need for school administrators to be trained on technology leadership. The fact that school administrators do not have sufficient education, knowledge and skills in the field of technology leadership is an important problem for them to fully fulfill their duties within the scope of technology leadership. For this reason, according to Şişman-Eren (2010), it is necessary to prepare standards for the relevant field in order to determine and develop the technology leadership skills of school administrators and to demonstrate their competence in technology leadership.

It has become compulsory to put information technologies into practice by shaping them with the educational dimension (Bülbül and Çuhadar, 2011). This situation occurs as a result of the increase in information and skills of individuals as a result of developments in information technologies. Aksoy (2003) states that in everyday life there is a mass of students who use computers, mobile phones, and social media. The teaching-learning and management process is moved to the network environment with information systems such as E-school, Mebbis, and there are changes in the access of teachers, students and parents to information resources. With this change, the importance of educational technologies is increasing day by day (Brooks-Young, 2002). For this reason, in order for today's education system to adapt to the information society, it is necessary to provide up-to-date and re-setting the goals to meet the needs of the age (Genç, 2000).

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It is the Educational Technology Standards, called NETS (National Educational Technology Standards), which emerged in the United States, which is widely used among the standards developed in technology leadership. These standards have three important features; the first one is the federal state system in the USA and the standards developed are designed for a wide audience and different education systems. The second important feature is that, unlike other educational technology standards, different standards have been determined regarding the use of educational technology in the form of teachers, students and administrators. Another feature of NETS is the standards developed, developed and implemented in the USA as a result of a project, which are implemented, implemented and monitored. For these reasons, according to Çoklar (2008), NETS standards developed in the USA have been accepted by many countries. Turkey has observed that school administrator's technology leadership competencies of is the research conducted within the framework of NETS-A standard for determining (Akbaba-Altun, 2008; Banoğlu, 2011; Hacifazlioglu, Karadeniz and Dalgıç, 2010, 2011; Şişman-Eren, 2011).

In this study, the national educational technology standards and performance indicators (NETS-A), updated in 2009 for school principals, are presented in the following technological leadership competencies (ISTE, 2009).

a) Visionary leadership: The educational leader leads the development and implementation of the common vision for a comprehensive integration of technology in achieving organizational transformation and excellence across the organization.

b) Digital age learning culture: The education leader creates, develops and maintains the environment that is relevant to the needs of students, engaging, dynamic, and brings the learning culture of the digital age to all students.

c) Excellence in professional development: The educational leader supports students' learning through digital technologies and digital resources by creating an innovative and professional learning environment that empowers educators.

d) Systematic development: The education leader provides digital age leadership by constantly improving its institutions through the use of effective information and technology resources.

e) Digital citizenship: The education leader helps to understand social, ethical and legal issues, and to develop responsibility for changing digital culture.

The aim of this study is to identify the technology usage status within the school, the methods and techniques required by the school principal to integrate the technology used in school with education, and the awareness of the use of technology as innovation efforts in the educational environment. Turkey made about the adequacy of the related technology leadership of school principals shows that various studies. Findings, comments and results obtained from this research will contribute to researchers in school principals 'technology leadership levels, competencies and their principals' leadership in technology in educational institutions. In addition, it will provide information about the technology leadership of school principals in schools in the universe where the research was conducted. It is thought that the results to be obtained from the research will provide some practical data on technology leadership for school principals, teachers, policy makers and researchers who are among the most important components of the education system. It creates, develops and maintains the environment necessary to bring the learning culture of the dynamic, digital age to all students.

The problem of the research is as follows; According to the opinions of school principals and teachers working in Düzce province, what is the level of technology leadership competence of school principals? In this study, research was conducted to determine the level of technology leadership qualifications of school principals working in Düzce province and to evaluate various demographic variables. In this context, answers to the following questions are sought:

1. What are the opinions of school principals and teachers on school principals' technology leadership competence sub-dimensions (visionary leadership, digital age learning culture, professional development excellence, systematic development and digital citizenship)?
2. Is there a significant difference in terms of institutional variables where school principals work on their technology leadership competencies?
3. Is there a significant difference in terms of institutional variables where teachers work with the opinions of teachers about technology leadership competencies?
4. Is there any difference between the school principals and teachers working in their institutions regarding the technology leadership qualifications of school principals?

Method

Research Model

The general purpose of the research is to explain the data obtained by measuring the perceptions of teachers and their perceptions about the technology leadership levels of the school principals working in the public kindergarten, primary school, middle school and high schools in Düzce province, and the literature reopinion has been tried to explain. The research was carried out using descriptive scanning model.

Research Sample

This study universe of Düzce, Turkey's research center in the province and district kindergarten, elementary school, middle school and high forms of school principals and the teachers working in these institutions. According to the statistics of Düzce Provincial Directorate of National Education and MEBBİS across the province of Düzce, 225 school principals and 4189 teachers work in kindergarten, primary, secondary and high schools in 2018-2019 academic year (Mebbis, 2019). According to Büyüköztürk and

others (2012), the number of data to be collected for the school principals between 0-500 for school principals (for α = 0.05) is 142 and the number of data to be collected for the teachers between 0-5000 for teachers (for α = 0.05) is 352. However, when the difficulties to be encountered in the data collection process of the research were also calculated and in order not to fall below the determined sample size, a total of 149 school principals and 373 teachers were sampled.

The sample size at the level of the universe and representation rate of the study is given in Table 1 below.

Table 1. Distribution of School Principals and Teachers Who Constituted the Universe of the Research and Number of Required Samples

	Kindergarten	Primary school	Secondary School-Religious Secondary School	High School-Religious High School	Total
Distribution of Teachers	143	1244	1532	1270	4189
Sample Representation Rate	%3	%30	%37	%30	%100
Required Sample Size	10	106	130	106	352
Number Assessed	10	112	128	123	373
Distribution of School Principals	28	103	49	45	225
Sample Representation Rate	%12	%46	%22	%20	%100
Required Sample Size	18	65	30	29	142
Number Assessed	18	69	32	30	149

In the research, the proportion of stratified sampling method was determined by determining the distribution of the principal and the teacher who wanted to apply the measurement tool.

In the selection of proportional stratified sampling used in the research, the rates of each of the substrates forming the universe in the universe were determined, and the sampling of each layer was determined in proportion to the level of representation in the universe. Level ratios were determined, and sample sizes were calculated in line with this ratio.

Distribution of school principals according to demographic variables is given in Table 2.

Tablo 2. Distribution of School Principals According to Demographic Variables

Variables	**N**	**%**
Gender		
Male	22	14,8
Female	127	85,2
Age group		
21-30 age	9	6,0
31-40 age	56	37,6
41-50 age	54	36,2
50+ age	30	20,1
Professional seniority		
1-5 yıl	9	6,0
6-10 yıl	24	16,1
11-15 yıl	42	28,2
16-20 yıl	37	24,8
21-25 yıl	18	12,1
25+ yıl	19	12,8

Education status		
License	130	87,2
Master	19	12,8
Management period		
1-5 year	64	43,0
6-11 year	41	27,5
12-15 year	25	16,8
16-20 year	14	9,4
21-25 year	5	3,4
Institution		
Kindergarten	18	12,1
Primary school	69	46,3
Middle School	32	21,5
High school	30	20,1
Total	149	100,0

Distribution of teachers according to demographic variables is given in Table 3.

Tablo 3. Distribution of Teachers According to Demographic Variables

Variables	N	%
Gender		
Female	202	54,2
Male	171	45,8
Age group		
21-30 age	103	27,6
31-40 age	192	51,5
41-50 age	58	15,5
50+ age	20	5,4
Mesleki kıdem		
1-5 year	90	24,1
6-10 year	106	28,4
11-15 year	101	27,1
16-20 year	43	11,5
21-25 year	16	4,3
25+ year	17	4,6
Education status		
Associate degree	20	5,4
License	304	81,5
Master	49	13,1
Institution		
Kindergarten	111	2,7
Primary school	112	30,0
Middle School	128	34,3
High school	123	33,0
Total	**373**	**100,0**

Data Collection Tools

Likert scale type was used in order to reveal different dimensions of the situation that is aimed to be measured. The Technology Leadership Competencies Scale of Educational Managers published in Banoğlu (2012) was applied to the sample group. In the research, it was concluded that the scale developed by Banoğlu (2012) was a valid and reliable measurement tool in determining the technology leadership competencies of school principals, and it was measured with the "Technology Leadership Competencies Scale of Educational Administrators" that covers NETS-A standards. The scale consists of 32 items and 5 dimensions in total. The scale's "visionary leadership" dimension consists of 12 items, the "digital age learning culture" dimension consists of 3 items, the "excellence in professional development" dimension consists of 8 items, the "digital citizenship" dimension consists of 6 items and the "systematic development" dimension consists of 3 items. In the measurement tool, research was conducted on school principals and

teachers taken as samples according to gender, age, educational status, professional seniority, duration of management, and institutional variables.

Data collection tool for the visionary leadership dimension of internal consistency reliability levels according to sub-dimensions. .869 is .758 for digital age learning culture dimension, .902 for excellence in professional development, .875 for digital citizenship dimension, .769 for systematic development dimension. Corrected item-total correlation values of the scale. It varies between .449 and .675 (Banoğlu, 2012). The lowest score that can be obtained from the scale is 32, the highest score is 160.

Cronbach Alpha internal consistency coefficients regarding the sub-dimensions of the scale applied to the Principal, visionary leadership (, 953), digital age learning culture (, 869), excellence in professional development (, 923), systematic development (, 706), digital citizenship (, 907) was found as total scale (,976). Cronbach Alpha internal consistency coefficients regarding the sub-dimensions of the scale in the questionnaires applied to teachers, respectively, visionary leadership (, 962), digital age learning culture (,889), excellence in professional development (, 953), systematic development (, 896), digital citizenship (,920) was found as total scale (, 981). These values show that the scales applied to both principals and teachers are reliable.

Data Analysis

In the research, data obtained from school principals and teachers were analyzed using SPSS 22.0 program. Scale sub-dimensions and total scores were subjected to analyzes by taking the arithmetic average. Before comparing scale scores according to demographic variables, whether the data are suitable for normal distribution was examined with the Kolmogorov-Smirnov test.

As a result of the analysis, it was determined that the data showed normal distribution according to several independent variables both in the scale applied to school principals and in the scale applied to teachers, but the data in other sub-variables of the same variable did not show normal distribution and therefore the data was not suitable for normal distribution ($p < 0.05$). Since the data are not suitable for normal distribution, non-parametric analysis methods were used for the data related to scale scores.

Mann Whitney U test and Kruskal Wallis H test were used to examine the sub-dimensions of the scale according to demographic variables. The Mann Whitney U test was used when the demographic variables were in two groups, and the Kruskal Wallis H test in the case of three or more groups.

Findings

Descriptive statistics regarding the perceptions of school principals participating in the research on technology leadership competence dimensions are given in Table 4 below.

Table 4. Descriptive Statistics on School Principals' Technology Leadership Adequacy Scale Total and Sub-Dimension Scores

Sub- Dimension	N	X	Ss
Visionary leadership	149	3,89	,809
Digital age learning culture	149	3,88	,873
Excellence in professional development	149	3,91	,785
Systematic development	149	3,71	,832
Digital citizenship	149	4,13	,736
Total scale	149	3,92	,742

When Table 4 is examined, visionary leadership $\overline{X}$ = 3.89 points, digital age learning culture $\overline{X}$ = 3.88 points, excellence in professional development $\overline{X}$ = 3.91 points, systematic development $\overline{X}$ = 3.71 points,

digital, which are the sub-dimensions of perceptions of school principals about technology leadership competence. citizenship $\overline{X}$ = 4.13 points and total scale $\overline{X}$ = 3.92 points. It is seen that school principals have achieved the technology leadership competence in all sub-dimensions and on a total scale. According to the findings, the general average of school administrators' opinions on technology leadership competencies $\overline{X}$ = 3.92. Accordingly, school administrators greatly demonstrate their technological leadership competencies. When the average of technological leadership competencies of school administrators is examined within the scope of standard fields; the highest of school administrators in the field of digital citizenship; it is seen that they have the lowest average in the field of systematic development. Accordingly, it can be said that school administrators consider themselves more adequate in the field of "Digital Citizenship" than other fields.

When the visionary leadership subtitle is examined, it can be said that school administrators show the behaviors stated in this field to a great extent. According to the findings, school principals; In order to integrate their institutions into the digital age and unite their stakeholders in a common vision in order to provide technological synergy, they are often used to promote a common-purpose change vision that supports technology practices, enhances the use of digital era resources, at the point of planning education and achieving goals. The institution can be interpreted as supporting their stakeholders. It can be said that they mostly support the development of corporate, local and national policies, programs and budgeting for the implementation of the vision and strategic plans of the institution, which are integrated with the technology, which are often participated in the creation and sharing of strategic plans consistent with the common vision of the institution and compatible with technological applications.

When the subtitle of digital age learning culture is examined, it can be said that school administrators show the behaviors in this field to a great extent. According to the findings obtained; they provide a dynamic digital age learning culture that provides detailed, appropriate and effective education, which they often provide in their institutions, often support and maintain innovations for the continuous development of digital age learning in education and training activities, and that all students plan for the efficient and effective use of technology in education. It can be said that they provide student-centered environments and learning resources equipped with technology that meets their needs. Resources for implementing the technology implementation vision and the school strategic plan at school, where they provide effective implementation of technology planning in their institutions and associate them with the curriculum, greatly support and participate in local, national and global learning communities that promote innovation, creativity and digital age collaboration for effective technology practices can be interpreted as researched

When the subtitle of excellence in professional development is examined, it can be said that school administrators show the behaviors in this field to a great extent. According to the findings, school principals; an exemplary model for continuous, efficient and effective use of technology in learning, to support the learning and innovation-based environments that empower students and stakeholders to enhance the learning of students through the integration of digital age technologies and digital resources, and strengthen institutional stakeholders. It can be evaluated that they are and support the stakeholders of the institution in applications, they support and participate in the professional development of managers, teachers and employees for the use of technology. It can be interpreted that they greatly design and support the effective communication and collaboration process in stakeholders by using digital age tools in their institutions, and that they encourage the learning of all students by following the educational researches and innovations for the effective use of digital technology.

When the systematic development subtitle is examined, it can be said that school administrators show the behaviors in this field to a large extent. According to the findings, school principals; To improve the performance of the stakeholders in the institution and effective learning of the students, by ensuring the effective use of digital and technological resources, they provide technology leadership to a large extent to ensure continuous development and innovation in the organization, they manage the change in a planned way to maximize their learning goals through the use of technological materials in accordance with their purpose and efficiently. It can be said that they collaborate by collecting, analyzing data, interpreting the results and sharing the findings.

In the strategic plan of the institution, in order to maintain the systematic functionality and integrity of different technology systems, where they provide the employment of personnel who can use technology efficiently and effectively to develop goals for the digital age, establish and mobilize strategic partnerships that support systematic development; management, operation, teaching and learning processes that support a solid technology infrastructure and sustainability.

When digital citizenship subtitle is examined, it can be said that school principals demonstrate the behaviors in this field to a great extent. According to the findings, school principals; developing and designing policies for the ethical, legal and safe use of digital information and technology, in which their institutions design and develop a perspective on social, ethical and legal issues and responsibilities that

support the development of digital culture, provide equal access to appropriate digital tools and resources to meet the individual needs of all students. And it can be said that they support modeling and creating rules. It can be interpreted that they support social interactions based on trust in using technology and information, and that they are a model by providing a great deal of development of common cultural understanding on global issues with innovative communication and cooperation tools.

Findings related to teachers' opinions

Descriptive statistics regarding the perceptions of teachers, school principals, and technology leadership competence dimensions are given in Table 5.

Table 5. Descriptive Statistics on School Principals' Technology Leadership Sufficiency Scale Total and Sub-Dimension Scores According to Teachers

Sub- Dimension	N	$\overline{X}$	Ss
Visionary leadership	373	3,40	,983
Digital age learning culture	373	3,31	,995
Excellence in professional development	373	3,33	1,014
Systematic development	373	3,27	1,044
Digital citizenship	373	3,52	,947
Total scale	373	3,38	,917

When Table 3 is examined, visionary leadership $\overline{X}$ = 3.40, digital age learning culture $\overline{X}$ = 3.31, excellence in professional development $\overline{X}$ = 3.33, systematic development $\overline{X}$ = 3.27, digital citizenship = sub-dimensions in the perceptions of teachers 'school administrators' perceptions about technology leadership competence. $\overline{X}$ = 3.52 and total scale $\overline{X}$ = 3.38. It is seen that teachers' perceptions towards managers in their institutions in the digital citizenship sub-dimension are high, and their perceptions about visionary leadership, digital age learning culture, excellence in professional development, systematic development and managers in their institutions of total scale are moderate.

According to the findings, the general average of teachers' opinions about the technology leadership competence competencies of school principals = 3.38. Accordingly, teachers think that school principals demonstrate their technology leadership competencies at an intermediate level. When the average of technology leadership qualifications to the findings is analyzed within the scope of standard fields; highest in digital citizenship; it is seen that they have the lowest average in the field of systematic development. It has been determined that the perceptions of school principals about technology leadership competencies are significantly higher than teachers' perceptions of school principals.

Findings regarding the variable of institution where school principals work.

The results of the Kruskal Wallis H test regarding the technology leadership adequacy scale total and sub-dimension levels of school principals participating in the research according to the institution variable studied are given in Table 6 below.

Table 6. Kruskal Wallis H Test Results Regarding the Total and Sub Dimension Levels of School Principals' Technology Leadership Adequacy Scale According to Institution Variable

Sub- dimension	Working institution	N	Rank average	Sd	X^2	P	Difference
Visionary leadership	Kindergarten	18	42,94	3	13,523	,004*	1-2, 1-3, 1-4
	Primary school	69	78,62				
	Secondary School	32	88,03				
	High School	30	72,02				
Digital age learning culture	Kindergarten	18	40,28	3	16,933	,001*	1-2, 1-3, 1-4
	Primary school	69	78,71				
	Secondary School	32	90,41				
	High School	30	70,87				

Excellence in professional development	Kindergarten	18	44,47	3	12,182	,007*	1-2, 1-3, 1-4
	Primary school	69	79,91				
	Secondary School	32	85,50				
	High School	30	70,82				
Systematic development	Kindergarten	18	52,17	3	7,032	,071	-
	Primary school	69	78,09				
	Secondary School	32	83,84				
	High School	30	72,15				
Digital citizenship	Kindergarten	18	41,25	3	16,598	,001*	1-2, 1-3, 1-4
	Primary school	69	79,14				
	Secondary School	32	90,47				
	High School	30	69,23				
Total scale	Kindergarten	18	42,64	3	14,392	,002*	1-2, 1-3, 1-4
	Primary school	69	79,09				
	Secondary School	32	88,81				
	High School	30	70,28				

*There is a significant difference (p<0,05)

When Table 6 is examined, the systematic development of the technology leadership adequacy scale according to the institutional variable studied by school principals [X2 (3) = 7,032; There was no statistically significant difference in p =, 071] sub-dimension (p> 0.05), visionary leadership [X2 (3) = 13,523; p =, 004], digital age learning culture [X2 (3) = 16,933; p =, 001], excellence in professional development [X2 (3) = 112,182; p =, 007], digital citizenship [X2 (3) = 16,598; p =, 001] and on the total scale [X2 (3) = 14,392; p =, 003], it is seen that there is a statistically significant difference (p <0.05) according to the institution variable studied.

The results of the Mann Whitney U test regarding the total and sub-dimension levels of the school principals participating in the research, according to the institutional variable of the school principals whose technology leadership adequacy scale has a significant difference are given in Table 7 below.

Table 7. Mann Whitney U Test Results Regarding the Total and Sub-Dimension Levels with Significant Differences in Technology Leadership Adequacy Scale of School Principals According to the Institution Variable Worked

Sub- dimension	Working institution	N	Rank average	Rank Total	U	P
Visionary leadership	Kindergarten	18	27,28	491,0	320,0	,002
	Primary school	69	48,36	3337,0		
Visionary leadership	Kindergarten	18	16,22	292,0	121,0	,001
	Secondary School	32	30,72	983,0		
Visionary leadership	Kindergarten	18	18,44	332,0	161,0	,020
	High School	30	28,13	844,0		
Digital age learning culture	Kindergarten	18	25,86	465,5	294,5	,001
	Primary school	69	48,73	3362,5		
Digital age learning culture	Kindergarten	18	15,42	277,5	106,5	,000
	Secondary School	32	31,17	997,5		
Digital age learning culture	Kindergarten	18	18,00	324,0	153,0	,011
	High School	30	28,40	852,0		
Excellence in professional development	Kindergarten	18	27,78	500,0	329,0	,002
	Primary school	69	48,23	3328,0		

Excellence in professional development	Kindergarten	18	16,86	303,5	132,5	,002
	Secondary School	32	30,36	971,5		
Excellence in professional development	Secondary School	18	18,83	339,0	168,0	,029
	High School	30	27,90	837,0		
Digital citizenship	Kindergarten	18	26,44	476,0	305,0	,001
	Primary school	69	48,58	3352,0		
Digital citizenship	Kindergarten	18	15,11	272,0	101,0	,000
	Secondary School	32	31,34	1003,0		
Digital citizenship	Kindergarten	18	18,69	336,5	165,5	,024
	High School	30	27,98	839,5		
Total scale	Kindergarten	18	27,25	490,5	319,5	,002
	Primary school	69	48,37	3337,5		
Total scale	Kindergarten	18	16,11	290,0	119,0	,001
	Secondary School	32	30,78	985,0		
Total scale	Kindergarten	18	18,28	329,0	158,0	,017
	High School	30	28,23	847,00		

Primary school according to the institution variable studied by school principals [U = 320,0; p =, 002], secondary school [U = 121,0; p =, 001] or high school [U = 161,0; p =, 020] the visionary leadership perception of working school principals is statistically significantly higher than the school principals working in kindergarten (p <0.05). Primary school [U = 294.5; p =, 001], secondary school [U = 106.5; p =, 000] or high school [U = 153; p =, 011] the perception of the digital age learning culture of the working school principals is statistically significantly higher than the principals working in the kindergarten (p <0.05). Primary school according to the institution variable studied by school principals [U = 329,0; p =, 002], secondary school [U = 132.5; p =, 002] or high school [U = 168.0; p =, 029] statistically significantly higher perception of excellence of working school principals in professional development than school principals working in kindergarten (p <0.05). Primary school according to the variable of school principals studied [U = 305,5; p =, 001], secondary school [U = 101.0; p =, 000] or high school [U = 165.5; p =, 024] statistically significantly higher perception of digital citizenship of working school principals than school principals working in kindergarten (p <0.05). Primary school [U = 319.5; p =, 002], secondary school [U = 119.0; p =, 001] or high school [U = 158,0; p =, 017] the perception of technology leadership competence (total scale) of working school principals is statistically significantly higher than school principals working in kindergarten (p <0.05).

When the findings are analyzed, the technology leadership qualifications of school principals on a total scale; the highest value of the principals working in secondary school; It can be said that the kindergarten principals have the lowest value. In the visionary leadership sub-dimension, which has a significant difference, it is seen that the secondary school principals are the highest value and the kindergarten principals are the lowest. In the digital age learning culture learning sub-dimension, it can be said that middle school principals have the highest value and kindergarten principals have the lowest value. It can be interpreted that the highest value secondary school principals in the sub-dimension of excellence in professional development are the kindergarten principals with the lowest value and the secondary school principals with the highest value in the digital citizenship sub-dimension are the kindergarten principals with the lowest value. In the systematic development sub-dimension, there was no significant difference as school principals showed similar leadership competencies.

Findings regarding the institutional variable where teachers work

The results of the Kruskal Wallis H test regarding the technology leadership adequacy scale total and subdimension levels of school principals according to the institution variable of the teachers participated in the research are given in Table 8.

Table 8. Kruskal Wallis H Test Results Regarding the Total and Sub-Dimension Levels of School Leaders 'Technology Leadership Scale According to Teachers' Institution Variable

Sub- dimension	Working institution	N	Rank average	Sd	X^2	P
Visionary leadership	Kindergarten	10	158,15	3	,776	,855

	Primary school	112	187,34			
	Secondary School	128	189,28			
	High School	123	186,67			
	Kindergarten	10	153,15			
Digital age learning culture	Primary school	112	193,63	3	1,644	,650
	Secondary School	128	188,06			
	High School	123	182,61			
	Kindergarten	10	170,55			
Excellence in professional development	Primary school	112	193,27	3	,742	,863
	Secondary School	128	183,73			
	High School	123	186,03			
	Kindergarten	10	200,70			
Systematic development	Primary school	112	178,26	3	1,256	,740
	Secondary School	128	188,30			
	High School	123	192,49			
	Kindergarten	10	178,45			
Digital citizenship	Primary school	112	188,24	3	1,262	,738
	Secondary School	128	194,02			
	High School	123	179,26			
	Kindergarten	10	164,15			
Total scale	Primary school	112	189,74	3	,641	,887
	Secondary School	128	188,97			
	High School	123	184,31			

When Table 8 is examined, the visionary leadership of the technology leadership adequacy scale of the principals in their institutions according to the institutional variable where the teachers work [X2(3) =, 776; p =, 855], digital age learning culture [X2(3) = 1.644; p =, 650], excellence in professional development [X2(3) =, 742; p = 863], systematic development [X2(3) = 1,256; p =, 740], digital citizenship [X2(3) = 1,262; p =, 738] and total leadership in technology leadership perception [X2(3) =, 641; p =, 887] there is no statistically significant difference (p> 0.05).

According to teachers, according to the perceptions of school principals about technology leadership, it can be said that they have similar opinions in sub-dimensions and there is no significant difference. According to the research, it can be said that the institutions where teachers work do not affect their perception of competence towards school principals.

According to teachers, it can be interpreted that school principals show their behaviors in visionary leadership, digital age learning culture, excellence in professional practice, systematic development and digital citizenship, which are sub-dimensions related to technology leadership competencies.

Comparison of School Principal and Teacher Opinions on Technology Leadership

The results of the Mann Whitney U test regarding the technology leadership competence perceptions of teachers and teachers' opinions according to the duty type variable of the school principals and teachers participating in the research are given in Table 9 below.

Table 9. Technology Leadership Competency Perceptions of School Principals According to Task Type Variable and Mann Whitney U Test Results Regarding Teachers' Opinions

Sub- dimension	Task type	N	Rank average	Rank total	U	P
Visionary leadership	Principal	149	314,47	46856,0	19896,0	,000
	Teacher	373	240,34	89647,0		
Digital age learning culture	Principal	149	324,57	48361,0	18391,0	,000
	Teacher	373	236,31	88142,0		
Excellence in professional development	Principal	149	322,49	48050,5	18701,5	,000
	Teacher	373	237,14	88452,5		
Systematic development	Principal	149	305,67	45545,0	21207,0	,000
	Teacher	373	243,86	90958,0		
Digital citizenship	Principal	149	328,89	49004,0	17748,0	,000
	Teacher	373	234,58	87499,0		
Total scale	Principal	149	324,79	48393,5	18358,5	,000
	Teacher	373	236,22	88109,5		

When Table 9 is examined, visionary leadership of the technology leadership adequacy scale of school principals [U= 19896,0; p =, 000], digital age learning culture [U= 18391,0; p =, 000], excellence in professional development [U= 18701,5; p =, 000], systematic development [U= 21207,0; p =, 000], digital citizenship [U= 17748,0; p =, 000] and on a total scale [U= 18358.5; p =, 000] perceptions seem to be significantly higher than teachers.

According to the data, based on the findings regarding the technological leadership behaviors that school principals can exhibit, teachers' perceptions will increase positively as the total level of technological leadership behaviors exhibited by school principals in the use of technology increases.

Conclusion and Discussion

According to the general average of their opinions on technology leadership competencies, school principals largely demonstrate their technology leadership competencies. When the average of the technological leadership competencies of school principals are analyzed within the scope of sub-dimensions; the highest level of school citizenship in digital citizenship; it is seen that they have the lowest average in the field of systematic development. Accordingly, it can be said that school principals consider themselves more adequate in the field of "Digital Citizenship" than other fields. In the context of school principals taking part in the research to exhibit these behaviors to a large extent, MoNE's students, teachers, various statistics etc. such as E-School and MEBBİS. It can be concluded that the applications developed for their work and operations can be widely used by teachers. The impact of technology leadership of school principals in the functioning of schools, institutional climate and institutional cultures can be mentioned. Integrating technology with education carried out projects in Turkey, Turkey Education System in the largest and most comprehensive manner FATİH purpose of the project activities on the integration of technology in education can be interpreted as performed at a certain level.

The finding obtained that school principals fulfill their technological leadership competencies "to a large extent", in the researches carried out by Seay (2004), T. Can (2008), Bostancı (2010), Banoğlu (2011), Görgülü (2013), "Substantially" is similar to the findings they obtained regarding their possession. In the study, the finding that school principals fulfilled their technology leadership competencies "most of the time" was the finding that Erden and Erden (2007) 's school principals showed low level of technological leadership skills and Persaud (2006)' s inability to use educational technologies of school principals differs with.

The finding that school principals fulfill technological leadership behaviors in the field of visionary leadership "most of the time" is similar to the research findings made by Can (2008), Şişman-Eren (2010) and Cantürk (2016). Nevertheless, Persaud's (2006) study differs from the finding that the researchers' attempts to determine the leadership roles in the integration of schools do not have clear visions about the roles of school principals.

It is seen that the average of the leadership behaviors shown by school principals in the field of systematic development has the lowest average compared to other sub-fields of technological leadership. This finding is similar to that in the study of Hacıfazlıoğlu and others (2010), educational administrators think that there are many financial, structural and cultural obstacles in the field of systematic development. Based on this,

it can be interpreted that the obstacles faced by school principals negatively affect their perceptions about the field of systematic development.

The research also included teachers' opinions on technology leadership competencies of school principals. Teachers' opinions were evaluated within the scope of "visionary leadership, digital learning culture, excellence in professional development, systematic development and digital citizenship" based on NETS-A standards.

When the average of teachers' opinions about technological leadership competencies of school principals are analyzed within the scope of standard fields; the highest level of school citizenship in digital citizenship; In the "systematic development" field, it is seen that they have the lowest average. Çakır and Aktay (2018) found that school administrators were at the highest level in terms of digital citizenship in terms of their technological leadership, and that systematic development competencies of Sayracı and Gündüz (2018) are in a high level of technological leadership. When their competencies are examined in terms of sub-dimensions; On the other hand, reaching the findings that systematic development is the least adequate dimension is similar to the research result. In Gültekin's (2013) study, school administrators found that they considered themselves sufficient in the field of "systematic development", and this situation can be said to be similar to the result of the research.

When the data is evaluated, it can be interpreted that according to the teachers' opinions, school principals are at a medium level according to the general average of their technology leadership competencies. Sincar's (2009) “classroom and branch teachers think that primary school administrators“partially ”exhibit their technology leadership roles” and that Chang and others (2008) teachers' perceptions about school principals are high and Görgülü's (2013) technological leadership competencies. It differs in general and in dimensions by its finding that it often shows.

Results and discussion according to the institution variable they work with

According to the findings, the technology leadership competencies of school principals are on a total scale; the highest value of the principals working in secondary school; It can be said that the kindergarten principals have the lowest value. In the visionary leadership sub-dimension, which has a significant difference, it is seen that the secondary school principals are the highest value and the kindergarten principals are the lowest. In the digital age learning culture learning sub-dimension, it can be said that middle school principals have the highest value and kindergarten principals have the lowest value. It can be interpreted that the highest value secondary school principals in the sub-dimension of excellence in professional development are the kindergarten principals with the lowest value and the secondary school principals with the highest value in the digital citizenship sub-dimension are the kindergarten principals with the lowest value. In the systematic development sub-dimension, it was determined that there was no significant difference since school principals showed similar leadership competencies.

It is observed that the technology competence of Ergişi (2005) is higher than the administrators of the secondary education institutions, who make primary education institutions. Ulukaya (2015) aimed to analyze the relationship between the technology leadership self-efficacy and the level of realization of education and training affairs of managers. While vocational high schools are the school level where the self-efficacy perception is the highest in technology leadership, the finding that there is a significant difference between the school type and technology competence with the finding that the principals working in primary school have the lowest perception of perception, and the school principals' technology leadership and school type It can be said that it has a similarity with the result of the difference.

In Çakır and Aktay (2018) and Görgülü (2013) studies, the differences in the perceptions of the school administrators regarding their technology leadership competencies sub-dimensions were examined, and the fact that they found that there was no significant difference at the end of the study may be interpreted as differing with the findings of the research conducted.

The technology leadership competence of kindergarten principals have lower competence in visionary leadership, digital age learning culture, professional development excellence and digital citizenship sub-dimensions compared to school principals at other levels, as stated earlier in research, lower technology leadership of female principals as women. It can be said that they have a parallelism with the result of examining the competence of technology leadership according to gender variable. It can be argued that reaching the finding that directors at other levels have more technology leadership, accessing interactive materials within the scope of Fatih Project, more scientific activities in schools, more technological equipment in institutions and more frequent research and development studies.

Results and discussion about the variable of the institution in which teachers work

According to the teachers working in different institutions, it can be said that the school principals have similar opinions in the sub-dimensions according to their perceptions about technology leadership and there is no significant difference. According to the research, it can be said that the institutions where teachers work do not affect their perception of competence towards school principals.

Teachers' behaviors related to technology leadership competencies can be interpreted as showing middle level behaviors in the fields of "visionary leadership, digital age learning culture, professional development excellence, systematic development and digital citizenship".

As a result of examining whether Görgülü (2013) differentiates according to school type, professional seniority and gender status, secondary school teachers; concluding that their perceptions about visionary leadership, digital age learning perceptions, excellence in professional development, digital citizenship and systematic development are significantly higher than the perceptions of general high school teachers, and their perceptions about digital citizenship are significantly higher than the perceptions of primary and general high school teachers, Sincar and Aslan (2011) found that there was a significant difference between the opinions of class and branch teachers regarding technology leadership roles, according to the results of the research

Comparison of school principals and teacher perceptions about technology leadership of school principals

According to the research findings, the perceptions of the technology leadership adequacy scale "visionary leadership, digital age learning culture, professional development excellence, systematic development, digital citizenship" and total scale are significantly higher than the teachers' perceptions.

In Can's (2003) study, primary school administrators mostly fulfill their technological leadership duties in their schools; According to teachers 'perceptions, Technological leadership sees that school principals are higher than primary school principals' perceptions of teachers, with the aim of determining the technology leadership levels of primary school principals by Scale (2014). principals often show their technological leadership competencies in general and in sub-dimensions, and school administrators' self-perception of technological leadership competence is similar to the results of the research, according to teachers, the emergence of school administrators to be significantly higher than their perception of technological leadership competencies.

According to the opinions of the teachers, the technology leadership competencies of the school principals are lower, and the teachers' observation of the points that the school principals cannot detect by themselves in the technology leadership competencies sub-dimensions is better observed by the teachers. Education and training activities require teamwork with a total understanding of quality. School principals should pay attention to the opinions of institution stakeholders in the preparation of the school technology plan.

Cantürk (2016) between perceptions of manager and teacher; While there was a significant difference in the dimensions of visionary leadership, systematic improvement, professional development excellence, "digital citizenship and digital age learning culture", teachers' opinions were found to be less in all dimensions compared to their opinions, while administering opinions that administrators show high technological leadership behaviors, The opinions of teachers evaluating school administrators to appear at a low level can be evaluated as differing with the research.

The technology leadership competencies of school principals are generally at a good level when the research result and research in the field are examined in general. School principals consider themselves more adequate to have technology competencies than teachers' perceptions. In addition, the technology leadership competencies of school principals can be examined by carrying out studies on a larger scale in the future.

Recommendations

- In order to be successful in the age when digital developments are increasing rapidly and educational technologies are developing, awareness of the leadership characteristics of the school principal is very effective as well as the technology leadership qualification dimensions can be added in the selection of school principals.
- Bureaucratic obstacles should be reduced in accessing and supplying schools with technological equipment, and funds allocated to institutions should be increased.
- While planning the trainings for the professional development of teachers who are the implementers of educational activities, the dimensions related to the implementation of the concepts of leadership, management and technology in schools can also be made and plans can be made.

- The school principal should be included in a separate class, the job description forms of the school principals should be renewed, and for this purpose, necessary studies and researches can be carried out by universities and other MEB affiliated institutions for the development of school management.
- Technology leadership is associated with elements in other leadership typologies, especially transformational leadership elements, as a typology. In this context, this subject can be read comparatively with other leadership theories in order to better understand the technology leadership issue.
- Increasing the motivation of teachers and principals to access technology to their efforts to increase the level of behaviors exhibited by the school principals to the level of displaying them to the level of displaying them at all times can help to further develop the technological climate and culture of schools.
- It may be beneficial for school principals to follow the visual and audio broadcasts regarding the levels of achievement of technology leadership qualifications.

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The Reasons of Negative Emotions that School Administrators Feel and How They Manage Them

Gizem GÜNÇAVDI[1], Yaser ARSLAN[2], Soner POLAT[3]
[1]PhD. Student, Faculty Member, Bursa Uludağ University, Department of Educational Sciences,
ORCID ID: 0000-0001-5055-2565
[2]Dr, Faculty Member, Kocaeli University, Department of Educational Sciences,
ORCID ID: 0000-0001-6625-6066
[3]Prof. Dr, Faculty Member, Kocaeli University, Department of Educational Sciences,
ORCID ID: 0000-0003-2407-6491
Email: gizemguncavdi@gmail.com, yaser.arslan@kocaeli.edu.tr, spolat@kocaeli.edu.tr

Abstract
Within the neoclassical theories of management, the human factor gained importance in organizations as one of the factors that affect productivity, fertility of human factor. Emotions are known to affect commitment of employees, their intention to leave the job and, shape organizational climate. Thus, it is important to take emotions into consideration in every type of organization, and educational organizations are one of them. Each stakeholders' emotions are important for the organizations, and so are school administrators. Thus, the aim of this study was to define the reasons of negative emotions that school administrators feel and how they manage them. Descriptive phenomenological design was used, and 13 school administrators participated in this study. The results showed that school administrators define negative emotions as the emotions that cause them to lose their motivation and make them feel bad. Also, they felt negative emotions which were fear, anger, stress, anxiety, and regret. In addition to these, the school administrators defined the reasons that make them feel negative emotions as work-related reasons and stakeholders related issues. Lastly, they explained that they showed introverted behaviours or outward behaviours when they dealing with negative emotions.

Key words: Negative emotions, emotional management, school administrators, emotions at work.

Introduction

The human factor, which has gained importance with neoclassical management theories, has become an important factor that cannot be overlooked in the management process of today's organizations. One of the dimensions that affect the fertility, productivity, organizational commitment and many other variables of the human factor is emotions. Emotion is defined as "the impression that a particular object, event or individual awakens in the inner world of man" (TDK, 2018). When its influence on people's existence is taken into consideration, the importance of managing emotions arises. Individuals feel positive and negative emotions in the face of events they experience throughout their lives.

Among the positive feelings, there are feelings like excitement, cheerfulness, happiness, satisfaction, being calm, relaxed and love while the negative feelings are nervousness, tense, stressed, sadness, worry, depression and impatience (Bozkurt, 2014). It has been dealt with in studies that it is important that these feelings should be balanced in terms of the effect on the human being (Andries, 2011; Çeçen, 2002; Rowe & Fitness, 2018; Sorensen, 2010). An individual who only focuses on positive emotions and ignores negative emotions experiences a mechanical, superficial, and non-natural life. Likewise, an individual who only focuses on negative emotions and ignores positive emotions ignores the energies carried by the emotions and be trapped in their negative emotions. Thus, it is possible to say that the spiritual health of the individual will deteriorate as a result of both situations (Çeçen, 2002; Rowe & Fitness, 2018).

The above-mentioned situations emphasize the importance of managing an individual's emotions in order to be healthy and productive for the organization. Emotion management is a concept that includes controlling and organizing the emotions, coping with the negative emotions felt, expressing the individual's emotions as well as anger control (Güney, Taşkıran & Özkul, 2015). Also, emotion management includes self-control, self-awareness, communication, social skills and empathy (Yaylacı, 2006).

The great impact of emotions on the individual's life and success is also crucial for the productivity of organizations. Emotion managements' impact on organizational commitment and organizational citizenship has also been made visible throughout the studies (Meyer & Allen, 1997; Podsakoff, MacKenzie, Paine & Bachrach, 2000). Also, Langelier (1996) put forward that organizational climate is affected by emotions. If feeling sad, anger, hatred and discouraged in an organization are dominant in an organization, it is highly possible that employees run away from work, have low motivation, do not care

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about their duties, and behave in abandonment. On the contrary, if positive emotions such as hope, optimism, love, self-confidence and happiness are suppressed in an organization, it is seen that the employees in the organization are working more efficiently, high performance, feeling responsibility towards work, prudent to work and prone to innovation. This situation shows how important the feelings of members of an organization are for the success and productivity of that organization.

It is possible to say that besides the above-mentioned factors, another factor affecting the organizational climate is the administrator of the organization. Administrators may experience positive or negative emotions at schools, and they are increasingly experiencing negative emotions as the leaders in other types of organizations. Thus, school principals and vice principals may sometimes feel frustrated based on many factors (Schmidt, 2010). It is possible to state that these negative emotions may affect all administration processes. To minimize the effect of these emotions on school administration processes, principals and vice principals may use different emotional strategies as other professionals (Arizmendi Tejeda et al., 2016). This is why it is important to understand in detail the influence of the administrator's emotions and ways of managing their emotions on the organization and employees. Understanding the school administrators' emotions and the way they manage them is important, since educational organizations deals with human and its capital is human. Within the light of this information, the aim of this study is to understand the reasons of negative emotions school administrators feel and how they manage those emotions, and the research questions are as follows: "How do school administrators define negative emotions?", "Which negative emotions are felt by school administrators in schools?", "What are the reasons of negative emotions?", "How school administrators manage negative emotions?".

Method

The research design

The research design of this study is descriptive phenomenological design which is one of the qualitative inquiries. Descriptive phenomenological studies aim to describe individuals' experiences and perceptions about a phenomenon (Ersoy, 2016). In this study, it was aimed to examine the experiences and perceptions of negative emotions experienced by school administrators and the methods they use to deal with these emotions.

Pilot study

Before conducting the main study, the researchers implemented a pilot study. In the pilot study, one school administrator was interviewed with the questions included in the data collection tool. The school administrator was a MA student in the department of Educational Administration. The reason why he was chosen was that having a background knowledge related to the subject being studied would be helpful for participant to mention his idea about what should be included and what should not be. In the pilot study, the semi-structured interview form included seven questions. During the pilot study, the two of the questions were seen to gather similar answers. Thus, one of those questions were deleted. Also, the other questions were reviewed depending on the feedback from the participant and the last version of the semi-structured interview form was reached.

The study group

The study group includes 13 school administrators. Participants who experience negative emotions in their schools are reached via snowball sampling method. This sampling method enables to reach other information-rich cases based on former participant's guidance (Creswell, 2007). These administrators include principals and vice principals of kindergarten, primary schools, elementary schools and high schools. The age range of administrators change between 35 and 53. Their tenure is between 11 and 28. The demographic information of principals are presented in Table 1.

Table 1. Demographic information about participants

Name	Gender	Age	Tenure	The school level	The administrative level
Hakan	Male	38	17	Primary school	Principal
Ahmet	Male	45	23	Kindergarten	Principal
Ümit	Male	35	11	Primary school	Vice principal
Ekrem	Male	52	16	High School	Principal
Seda	Female	37	13	Primary school	Vice principal
Aylin	Female	36	20	Elementary school	Principal
Beren	Female	39	23	High school	Vice principal

Onur	Male	41	19	Elementary school	Principal
Tuba	Female	48	22	High school	Vice principal
Akif	Male	39	15	High school	Vice principal
Sedat	Male	46	22	High school	Principal
Ceyda	Female	42	21	Kindergarten	Principal
Mustafa	Male	53	28	Primary school	Vice principal

Data collection tool

The data were gathered through semi-structured interview form. The questions in the semi-structured interview form are questions such as "What are the negative feelings you are experiencing?", "What are the situations that make these feelings alive?", "What are the reasons that make you feel negative emotions?, "How do negative emotions affect you?" "What are you doing to overcome this feeling?".

The interviews with the administrators were conducted face to face, interview(s) for each participant lasting between 30 and 45 minutes on total average. After the collection of the data, the researchers transcribed data, and then started the content analysis.

Data analysis

Descriptive analysis method was used to analyze the data in the study. To ensure the validity and reliability of the research, the researchers used the credibility, transferability, consistency and confirmability criteria determined by Yıldırım and Şimşek (2016). In order to ensure the credibility of the research, all the data was first recorded with a voice recorder, and then it was transmitted and sent to the participants for confirmation. After removing the parts that the participants did not want to include in the study, the analysis was carried out. In order to ensure its transferability, the researchers provided the readers with detailed information about the environment in which the study was conducted, how the participants in the study were selected and the demographic characteristics of the participants who participated in the study. The researchers received the opinions of an external expert during the analysis and coding process for consistency. In addition, the researchers carried out the analysis independently of each other, then came together and reached a consensus on the themes and their contents that emerged by comparing their individual analysis. In this process, the percent of agreement for coding between the researchers was calculated. As a result of the calculation, the coding reliability was found to be 0.89. The percent of agreement used to determine reliability between coders is more than 0.70 is considered as good fit (Tavsancil & Aslan, 2001). In order to ensure the confirmability of the research, the analysis process has been explained in detail and the findings have been discussed by supporting them with different opinions.

Findings

The definitions of negative emotion

First research question of the study was "how do school administrators define negative emotions?". The administrators defined the negative emotions as feeling the emotions which make them uncomfortable, worried, and demotivated. Some of the definitions are presented below:

> "All emotions that make me feel uncomfortable, worry and demotivate me. Sadness, fear, anxiety, etc. All of them." (Hakan)
>
> "The moment or conflict that destroys my motivation and energy. As a result, I do not want to do anything." (Ahmet)
>
> "The emotion that makes everybody and the individual unhappy, restless." (Ümit)
>
> "Being unhappy in workplace, loss of motivation to work." (Seda)
>
> "Emotions that make me feel nervous, anxious and even sick." (Ceyda)

The negative emotions felt by school administrators

Second research question of the study was "which negative emotions are felt by school administrators in schools?". The administrators listed the negative emotions they feel as anger, restlessness, tension, nervousness, impatience, annoyance, wasted effort, anxiety, stress, jealousy, mistrust, depression and sadness. Some of the direct quotations about the research question are as follows:

> "I feel fear, anxiety, sadness, anger, jealousy and rage (...). When students or teachers have some health issues at school, I feel fearful. I feel anxious about making mistakes or students' failure. When students have conflict or when I have conflict with teachers, I feel sad. If my

> students cannot win competitions, I become jealous. And lastly, if a staff member or a parent disturbs my motivation, this makes me feel angry." (Akif)
>
> "What directly comes to my mind about this question is being regretful. I try my best to help my teachers, but they forget them and behave as if we were enemies when we encounter a minimum problem." (Beren)
>
> "I sometimes feel disappointed. Because it is sad to see that everybody has higher level of ego day by day. In congruent with this, I feel mistrust towards teachers since they never accept their mistakes always blame other teachers." (Ekrem)
>
> "(…) Our students' parents sometimes make me feel I waste my effort in vain. We really work hard as school stakeholders. However, parents aren't happy and they frequently complain." (Tuba)

It is seen that definitions and examples of the school administrators about negative emotions are consistent with literature (Bozkurt, 2014). For one's managing her/his emotions, being aware of these emotions is a prerequisite. Thus, this can be seen as a clue that participants of the study have the ability to deal with negative emotions.

When the data about the research questions of "what are the reasons of negative emotions?" and "how school administrators manage negative emotions?" were analyzed, two main themes have been reached, which are the reasons of negative emotions and the ways of dealing with negative emotions (Table 2).

Table 2. Main themes and sub-themes

Main themes	Sub-themes
The reasons of negative emotions	• Work related reasons • Stakeholders related issues
The ways of dealing with negative emotions	• Introverted behaviours • Outward behaviours

The reasons of negative emotions

The reasons for school administrators' feeling negative emotions were related to work and the reasons stemming from the individual characteristics of school stakeholders.

Work-related reasons

School administrators listed work-related reasons that made them feel negative emotions as paperwork and heavy workload. Some of their views can be seen below:

> "Since I am the only vice principal of our school, it is sometimes very hard to deal with problems. We have to keep our teaching-learning continuing, and also we have to deal with bureaucratic issues. There are lots of paperwork (…) Asking from teachers to deal with the ones they are responsible for, and getting them together can sometimes be too demanding. All of these facts make me feel stressful." (Mustafa)
>
> "People sometimes think that being a principal means doing nothing at school. It is not the situation. You are the one and only authority to explain and convince the top managers when something bad happens. You should keep an eye on students. You should listen to teachers' problems and try to solve them. Besides, you should deal with financial issues of a school, and that includes wide range of things from painting the walls to buying toilet papers." (Sedat)
>
> "I am the vice principal at our school who are responsible for students' issues. We have approximately 370 students, which means 370 student files in terms of paperwork, and 370 souls that we are responsible for educating. It is a huge responsibility, believe me (...) The bureaucratic issues are a problem, and students' personal problems such as health issues and problems in their family are another issue which depresses me." (Akif)

Stakeholders related issues

Participants listed the reasons stemming from the individual characteristics of school stakeholders as different working styles of teachers and janitors. Some of the views of school administrators are presented below:

> "We are not a big school, but we have some problems as any other school has. Our main problem is making staff do their job. I have been working for long years here, however I couldn't find a standard way to distribute works to our teachers and their assistants in classrooms. For example, one of my teachers always knows what to do and how to do, so I don't have to warn her about anything. On the other hand, another teacher is a bit reckless, which makes me tell her what to do more than one time. It can be tiring sometimes." (Ceyda)
> "What is difficult about being a principal at a crowded high school is sharing the school with so many staff who have different characteristics. Teachers are different from each other, janitors are different from each other and securities are different from each other. It is the nature of social sciences, I guess." (Sedat)
> "Managing so many different characters at school can sometimes be demanding. I remember an example which can be emphasized this fact. A few years ago, one of our janitors was a bit sincerer with our students. Some of the parents complain about this. Thus, I warned him. However, he didn't accept the accusations. I told him that I trusted him, and asked him to be more careful. But this event changed his attitudes towards his job, his duties. After a while, he left without letting us know, and we had difficulty until new personnel came." (Mustafa)

It is understood that the nature of work in schools can make the principals and vice principals feel negative emotions. In addition to this, other stakeholders of school community as teachers and janitors can make them feel negative emotions. The last research question of this study was about how school administrators manage these negative emotions; the findings are presented below.

The ways of dealing with negative emotions

When the ways in which school administrators deal with negative emotions are analyzed, it has been found that there are two themes: introverted behaviors and outward behaviors.

Introverted behaviours

Among school administrators' introverted behaviors, there are being silent, ignoring, taking care of something else, and inspiring oneself.

> "I see management as a profession. I inspire myself about that the negative event I face is not permanent, it is a part of my job. I ignore it in a way." (Onur)
> "I walk away from the school to calm down myself. Sometimes I try to occupy my mind by dealing with works not related to the school." (Hakan)

As the administrator Ekrem and Beren mentioned, school administrators can choose to isolate themselves by going to their room, or by listening to music.

> "I shut myself down for a while. I go to my room, lock the door and not let anyone in until I feel myself better." (Ekrem)
> "I turn on a song, a classical music piece, and try to calm down. If it doesn't help, I go out and get some fresh air." (Beren)
> "I don't talk to anyone. I go to my room, close the door, sit my chair, and close my eyes. By doing this, I try to isolate myself. But sometimes it doesn't help, thus I go out and smoke." (Mustafa)

As it can be seen from the quotations above, school administrators sometimes try to cope with negative emotions by isolating themselves, and deal with those emotions. However, sometimes they can show outward behaviours, as well.

Outward behaviours

Among the outward behaviors of school administrators there are shouting, leaving the room by hitting the door, going to another person and pouring out, consulting others.

> "When I experience something negative, I prefer explaining myself and negotiating on failures by communicating." (Aylin)
> "I can't hold myself sometimes, and shout. After a while, I regret shouting. However, at that moment I can't help myself shouting." (Akif)
> "I try to spend time with a friend of mine, which makes me feel better." (Tuba)
> "I consult my husband, or my friend and try to get his or her ideas. This makes me feel calm." (Seda)

> "I remember hitting the door and leave the class when I get angry with students. Also, I shout at them, because they don't listen to me and agree on solutions for problems. This makes me really angry, and I shout at them as a result." (Sedat)

It can be understood that school administrators show introverted or outward behaviours when they face with negative emotions. In other words, they use different emotional strategies to manage their negative emotions.

Results, Conclusions and Recommendations

This study aiming to define the negative emotions school administrators experience and what they do to overcome these emotions resulted in two main themes. These themes are the reasons of negative emotions and the ways of dealing with negative emotions. Before these themes are detailly examined, the researchers tried to understand whether school administrators know what negative emotions mean and what kind of emotions are defined as negative by school administrators. The results showed that school administrators define negative emotions as the emotions that cause them to lose their motivation and make them feel bad. These definitions are in line with literature (Diener & Lucas, 2000). Diener and Lucas (2000) defined negative emotions as the ones that make individuals feel demotivated, distracted and cause them to lose their desire to work, which is a similar definition to the one made by administrators. The school administrators feel negative emotions which are sadness, fear, anger, stress, anxiety, and regret. Frey and Stutzer (2001) also listed negative emotions as sadness, stress, anxious, anger and hopelessness. Thus, it can be inferred that school administrators know what negative emotions mean.

Another and important finding of this study is that school administrators defined the reasons that make them feel negative emotions as work-related reasons and stakeholders related issues. Among the work-related reasons, administrators talked about heavy workload related to paperwork and some bureaucratic issues. This finding correlates with Kiefer's (2005) findings about reasons of negative emotions. Kiefer (2005) mentioned that working conditions, such as unreasonable workload or task problems, cause negative emotions. On the other hand, they mentioned different characteristics and different working styles of teachers and janitors as reasons stemming from the individual characteristics of school stakeholders.

When it comes to the ways in which school administrators deal with negative emotions, they explained that they showed introverted behaviours or outward behaviours when they faced negative emotions. Among their introverted behaviours, there are being silent, ignoring, taking care of something else, and inspiring oneself. Among the outward behaviours of school principals, there are shouting, hitting, leaving the room by hitting the door, going to another person and pouring out, consulting others. Yi and Baumgartner (2004) similarly expressed that individuals deal with negative emotions by showing anger and feeling disappointment and regret. Arizmendi Tejeda et al. (2016) also stated that individuals used different emotional strategies to manage their negative emotions. Thus, it is possible to say that this finding of the study correlates with literature.

Within the light of the findings of this study, it can be suggested to conduct a further research to teachers as well, since all stakeholders at school are equally important. Also, a quantitative research can be conducted to see a big picture at schools, since this study is a qualitative study and it is limited to the views of these 13 school administrators.

For the practitioners, it can be suggested that in-service training be conducted to school administrators to improve their emotion management skills. In addition to this, a break room can be placed in each school to make both administrators and teachers have a rest. There can be music player, cosy sofas, etc that will make them feel comfortable. When they face something that make them feel negative emotions, they can go into that room and calm down. Most of all, a counselling service can be provided by specialists in each school.

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Perceived and Preferred Culture Types at Schools

Kübra Yenel[1], Fatih Şahin[2], Necati Cemaloğlu[3]
[1]Gazi University, ORCID ID: 0000-0002-4237-9763
[1]Gazi University, ORCID ID: 0000-0002-6579-2550
[3]Gazi University, ORCID ID: 0000-0001-7753-2222
Email: kubrayenel@gmail.com, sahinfatih@gazi.edu.tr, necem@gazi.edu.tr

Abstract
In this study, it is aimed to determine the culture types related to the perceived and preferred situation in schools. It is also aimed to examine these types of culture by considering the socio-economic context. For this purpose, the relational screening model was used in this study. In order to determine the teachers in the schools in the designated sample, the convenient sampling method was used from the non-random sampling methods. The sample of the study consists of 360 teachers working at various schools in Bilecik Province of Turkey. As a result of the study, it has been found that the most dominant organizational culture type in schools is the clan culture in all socio-economic levels and the most preferred type of organizational culture is also clan culture. In addition, it has been concluded that in terms of culture types, there is a significant difference between the perceived situation and the preferred situation in schools at all socio-economic levels. As a result, the most dominant type of organizational culture in the educational organizations is determined as clan culture which shows that teachers do not want to be in a race in their school, but they want to act together with their colleagues.

Key words: School culture, clan, hierarchy, market, adhocracy.

Introduction

The rapid changes in science, art and technology, that is, in all parts of social life, affect the modern organizations that come together for specific purposes in many ways and these changes force organizations to change. The influence of the environment and the complex nature of organizations can increase the need for change (Greenwood & Hinings, 1996). Despite this need, it is not an easy process to initiate the necessary change or transformation in organizations (Kavanagh & Ashkanasy, 2006; Weick & Quinn, 1999). Especially the changes in the organization's norms, values, belief systems, in short, the transformation in organizational culture requires both intense and long-lasting efforts. However, the idea that organizations do not have a uniform and static culture (Kavanagh & Ashkanasy, 2006) suggests that the necessary change is always possible.

In order to initiate the process of cultural change in organizations, it is necessary to know the effect of culture on organizational structures and behaviours (Zheng, Yang, & McLean, 2010). Culture, an abstract concept, has a significant impact on organizations (Schein, 2010). Organizational culture, which is claimed to have an effect on organizational variables such as organizational performance (Cameron & Quinn, 2017; Wilkins & Ouchi, 1983), organizational learning (Cook & Yanow, 1993), organizational success (Demirtaş, 2010; MacNeil, Prater, & Busch, 2009), organizational effectiveness (Denison & Mishra, 1995; Hartnell, Ou & Kinicki, 2011; Zheng et al., 2010), organizational commitment (Erdem, 2007; Sezgin, 2010), organizational trust (Terzi, 2016), job satisfaction (Lund, 2003; You, Kim & Lim, 2017), job engagement (Huhtala , Tolvanen, Mauno & Feldt, 2015), leadership (Bass & Avolio, 1993), is unlikely to achieve the desired results when not managed well (Barney, 1986). There have been some studies which reveal the relationship between organizational culture and some negative variables such as occupational burnout (Huhtala et al., 2015), mobbing (Yaman, 2010), workplace bullying (Pilch & Turska, 2015) and work stress (Hwang, 2018). In the context of educational organizations, when the subject of culture is considered, similar results are encountered. Research by Marcoulides, Heck and Papanastasiou (2005) shows that student achievement is related to the student's perception of school culture. Sezgin's study (2010) reveals the relationship between organizational culture and organizational commitment while the study of You et al. (2017) reveals the relationship between school culture and job satisfaction of teachers.

Proper management of culture, which has a significant impact on organizational structures and behaviours, contributes to organizational development. The dynamic and flexible structures of organizations (Weick, 1976) show that proper management of organizational culture passes through change management (Cameron & Quinn, 2017). At this point, the level and the type of change gains importance. The level of need for change varies depending on the context in which the organizations are

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involved, and the work is done. Some organizations do routine works in stabile environmental condition, use simple technologies and are predominant technically. In general, these organizations follow standard processes. Therefore, in these organizations, the need for change may be less than it is in dynamic social organizations (Eren, 2016; Taylor, 2012). There is a greater need for change in social organizations whose environmental uncertainty is high, which uses intensive technology and is more affected by psychological and sociological context. Mainly, it is possible to evaluate the educational organizations that outweigh in terms of the social aspect in this context. Weick (1976) evaluates educational organizations within this framework and stated that educational organizations could not be seen as rigid and unshakable structures. Instead, it would be more appropriate to see educational organizations as dynamic and flexible structures which are highly intertwined with the environment and which are profoundly affected by the external environment. Therefore, it cannot be expected that educational organizations, which are seen as dynamic and flexible structures, behave like closed systems, resist resistance, and remain insensitive to changing cultural context.

Some research analyzed the current situation on culture in schools. In these studies mostly, the relation of the perceived culture type with other variables in the perceived situation is examined (Demirtaş, 2010; Marcoulides et al.; Sezgin, 2010; Terzi, 2016; Yıldırım, 2018; You et al., 2017). It can be argued that the field of education has a rich literature in terms of organizational culture. However, we can encounter a limited number of studies that take the cultural studies beyond the perceived situation and investigate the preferred type of culture. It can be argued that this research will make a significant contribution to cultural research in educational organizations. In addition, considering the fact that environmental variables such as soci-oeconomic status are influential on culture (Yıldırım, 2008), including the socio-economic context in the related research can add more importance to this research.

In this study, it is aimed to determine the culture types related to the perceived and preferred situation in schools. It is also aimed to examine these types of culture by considering the socio-economic context. Culture is thought to be related to the socio-economic situation. School people, in their community, reflect differences in age, ethnicity, gender, socio-economic class, purposes and abilities (Şişman & Dönmez, 2010). Social conditions consisting of factors such as the external environment of the school, the socio-cultural status of the students, rural and urban areas, geographical features, parents' expectations and social support have an impact on school culture (İpek, 1999). The cultural perceptions and expectations of teachers working in different schools may vary according to the socio-economic level of the school. Regarding the school culture perception of teachers working in primary schools, it is observed that the difference is significant in terms of the socio-economic level. For example, the perceptions of teachers working in upper secondary schools regarding school culture are found to be the highest, and the perceptions of teachers working in lower secondary schools are the lowest (Şahin, 2004). Within the scope of this aim, we first try to determine the perceived culture type scores of schools; secondly, the preferred culture type scores. Defining the culture types is based on Robert and Cameron's (2017) four model of culture typology. Next, a statistical analysis of the difference between perceived and preferred culture types is done by considering the socio-economic context of the schools. Briefly, in this study, it is aimed to determine the perceived and preferred types of organizational culture for schools and to determine the significance level of the difference between them. This research is one in examining the dominant culture types at schools clearly as well as defining the preferences of teachers. The culture studies in the literature are more commonly interested in the culture of the school itself, however, the culture of the school is a whole with the teachers.

Theoretical Framework and Literature Review

Organizational culture

It is seen that culture, which is based on anthropology and folklore, has been examined in the field of management especially since the end of the 1970s and the concept of organizational culture has started to gain importance (Barney, 1986; Hatch, 1993; Pettigrew, 1979; Schein, 1983, 1984; Sezgin & Sönmez, 2017; Wilkins & Ouchi, 1983). Different definitions have been made about the organizational culture, which is a frequently studied subject in the field of management. Considering some of these definitions together, it is seen that organizational culture is a system of shared orientations that keeps the units belonging to the organization together and makes it different from other structures, which gives a sense of identity to organization members (Cameron & Quinn, 2017; Hoy & Miskel, 2010; Schein, 2010). The norms, values, beliefs, expectations, philosophy, legends, ceremonies, habits and many other elements of the organization come together and form the shared orientations.

Organizational culture has different levels of elements which are easily recognized in one aspect and which are very difficult to recognize in another aspect. From prominent behaviours to hidden

assumptions, many elements come together to create an organizational culture and give meaning to the organization (Cameron & Quinn, 2017; Schein, 2010). Schein (2010) deals with the organizational culture at three levels. It is possible to see the elements of material culture at the most obvious level of organizational culture. Adopted beliefs take place at the next level of organizational culture. At the most basic level of organizational culture, there are underlying assumptions about human nature, organization, aims, goals, relationships and interactions.

Organizational culture has different dimensions. In some organizations, cooperation is encouraged, while in some organizations individuality can come to the fore. While some organizations act with a purely success-oriented approach, in some organizations, it is aimed to establish regular structures with a control-oriented approach. Cameron and Quinn (2017) discuss the organizational culture in four main dimensions: clan culture, adhocracy culture, hierarchy culture and market culture.

Clan culture

Organizations dominated by clan culture are similar to family type structures. In such organizations, importance is given to teamwork, organizational activities are carried out in a participatory manner, and the sense of we in the organization is dominant (Cameron & Quinn, 2017). In the culture of a clan, the fundamental belief is that as long as the organization has a high level of trust and commitment to employees, open communication will be high in the organization and the participation of employees will be more comfortable (Hartnell et al., 2011). A high level of organizational commitment (Erdem, 2007) and high success (Demirtaş, 2010) are seen in organizations with high clan culture. Supportive and shared leadership behaviours are common in organizations with high clan culture, which facilitates the organization to become a professional learning society (Carpenter, 2015).

Adhocracy culture

Innovative and pioneering initiatives are crucial for success in organizations dominated by adhocracy culture. The research carried out by Naranjo-Valenciai, Jimenez-Jimenez and Sanz-Valle (2011) on organizational culture and innovation confirms this claim. Entrepreneurship, creativity and use of advanced technologies are encouraged in adhocracy cultures. Great importance is given to individuality, risk-taking and future perception in adhocracy culture (Cameron & Quinn, 2017). The fundamental belief in adhocracy culture is that the creation or collection of new sources of change encourages an idealistic and new vision to encourage members to be creative and take risks (Hartnell et al., 2011).

Hierarchy culture

There is a formal structure in organizations dominated by hierarchy culture, standard rules are applied in such organizations, and standard processes are followed. Therefore, it can be argued that familiar behaviours and imitation are common in such organizations (Naranjo-Valenciai et al., 2011). In the culture of hierarchy, the division of labour is done, for the assignment and promotion of the task, merit is considered, and there is a hierarchical authority order. In such organizations, the extent to which tasks are fulfilled is often controlled (Cameron & Quinn, 2017). The underlying assumption in hierarchy culture is that control, stability and predictability increase efficiency. For this reason, there is an expectation by the employees that their role in these organizations is clearly defined (Hartnell et al., 2011). It can be said that there is a commitment of employees to work in these organizations where the culture of the hierarchy is high because of feeling compulsory to do so (Sezgin, 2010).

Market culture

In organizations where market culture prevails; characteristics such as meeting profitability, demand or expectations, achieving final results and achieving challenging targets are taken as a basis. In the culture of the market, the organization seeks to protect itself against external elements that it perceives as aggressive or dangerous (Cameron & Quinn, 2017). The primary belief in market culture is that clear goal, and contingent rewards motivate employees to perform and meet stakeholders' expectations aggressively. For this reason, communication, competence and success are valued in organizations where market culture is dominant (Hartnell et al., 2011). Barney (1986) stated that in the case an organization's culture had rare and inimitable characteristics, it would achieve a competitive advantage. It can be argued that market culture may have some adverse effects as well as its benefits to the organizations. For example, in organizations with high market culture, the level of organizational commitment may be low (Erdem, 2007).

Method

Research design

This research is in the survey model in order to reveal the perceived and preferred organizational culture levels of schools. The screening models, which we rightly observe the event and present the results, are the models that aim to convey and identify the past or continuing event (Karasar, 2016). In terms of presenting the perceived and preferred culture types of organizations according to socio-economic levels, relational survey model is used. The relational screening model, a type of screening model, is a research model that aims to determine the presence or degree of interchange between two and more variables. In the relational survey, which is the type of comparison used in this research, groups of at least two variables are formed according to the independent variable, and the differences between the groups are examined according to the dependent variable (Karasar, 2016).

Research sample

The population of the research consists of 2129 teachers who are working related to Bilecik Provincial Directorate of National Education. Multistage sampling method was applied in the research, and firstly Bilecik city centre and districts were classified as lower, middle and upper according to socio-economic level and stratified sampling method was preferred. Stratified sampling is a sampling method that aims to identify the sub-groups in the universe and ensure that they are represented in the sample with their proportions in the universe size (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2011). The total number of schools in the different socio-economic levels that make up the research universe and the ratio in the overall total were calculated. Then the number of schools from each level to be included in the sample was calculated by the ratio of schools in socio-economic levels to the total number of schools. In order to determine the teachers in the schools in the designated sample, the convenient sampling method was used from the non-random sampling methods. Convenient sampling is the selection of the sample from easily accessible and practicable units due to the limitations on time, money and labour force (Büyüköztürk et al., 2011). 400 teachers could be reached from the schools determined within this scope. After completion of the extraction process of the inappropriate ones, 360 questionnaires were included in the study. Distribution of the participants with regard to some variables is presented in Table 1.

Table 1. Distribution of participants according to some variables.

	Gender		Age			Education Level		
Position	**Male**	**Female**	**24-39**	**40-55**	**56+**	**Bachelor's Degree**	**Master's Degree**	**Doctorate**
Teacher	130	230	124	160	76	325	32	3

When we look at Table 1, we see that 64% f the teachers are female, 44% of them are at the ages of 40-55 and %90 of them have bachelor's degree.

Research instrument and procedure

In this study, Organizational Culture Evaluation Survey developed by Cameron and Quinn (2017) was used as the data collection tool. We have got the necessary allowances to use the survey. This survey was translated into Turkish by the original translators of the translated book 'Örgüt Kültürü: Örgütsel Tanı ve Değişim' and we used this Turkish version of the survey from the book. The data collection tool is consisted of two parts. In the first part some demographic questions (position, gender, age and education level) are asked. In the second part, culture survey is included which is organized as a distribution of 100 points to 4 items (four culture types) separately for the perceived and preferred situation. A pilot study was conducted with teachers not included in the sample group of the study, and as a result, some questions found missing in the demographic information section of the survey were added and the original scoring section was not changed.

Data Collection

The tool was submitted to the approval of Bilecik Provincial Directorate of National Education by the research group. Following the approval, Bilecik Provincial Directorate of National Education handled the distribution and announcement of data collection tools to schools. Data were collected from the teachers face to face by the researchers. Two of the researchers went to the schools day by day and distributed the surveys to the available teachers in the sample group schools. The answers were written on printed papers.

Data Analysis

After collecting the data, descriptive analyses were done in the evaluation of the data, and the mean and standard deviation were calculated for the purpose of presenting the existing and preferred culture types. Since the scoring on the survey was done over a hundred, percentage was calculated over these points. The percentages are shown with pie charts.

Then, the descriptive analyses of socio-economic levels were made, and the perceived and preferred culture types were shown with bar charts. Detailed comparison by socio-economic levels is given on tables by present and preferred culture types. In order to test whether the difference between the perceived organizational culture type and the preferred organizational culture type is meaningful, a T-test was performed for the related samples.

Findings

In this section, firstly, the findings of the perceived culture types of schools are given, and the distribution of existing culture types according to socio-economic level is examined. In the next stage, the findings related to the preferred culture types of schools are given, and the distribution of the findings related to the preferred culture types according to the socio-economic level are examined. Finally, the difference between the perceived and preferred organizational types is shown with a sense of significance. The distribution of the existing culture types of schools is given in Figure 1.

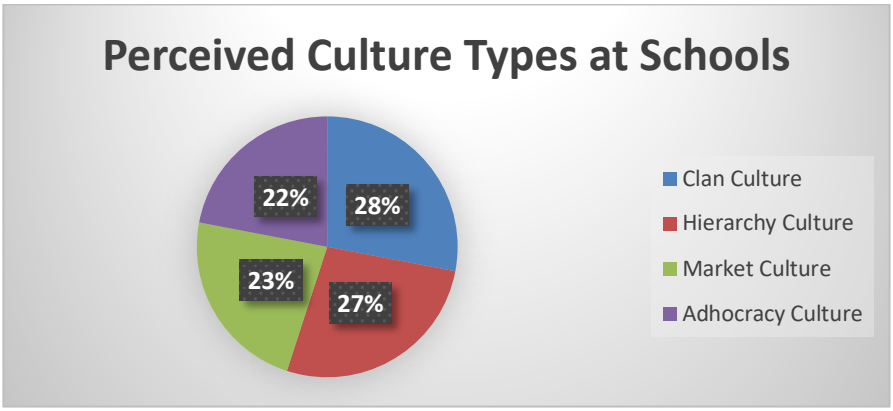

Figure 1. Distribution of organizational culture types in schools.

When the perceived situation perceptions of the teachers participating in the research are examined, 28% of the teachers state that the clan culture in their organizations prevails. 27% of the teachers find hierarchical culture dominant in their organization. 23% of the teachers say that market culture takes more place than other culture types in their organizations and 22% state adhocracy culture prevails in their organization. In other words, it is possible to say that, in the perceived situation, four types of culture are distributed at approximately the same rate in schools, and that the culture of a clan is more prominent compared to others. The distribution of existing culture types according to socio-economic level is given in Figure 2.

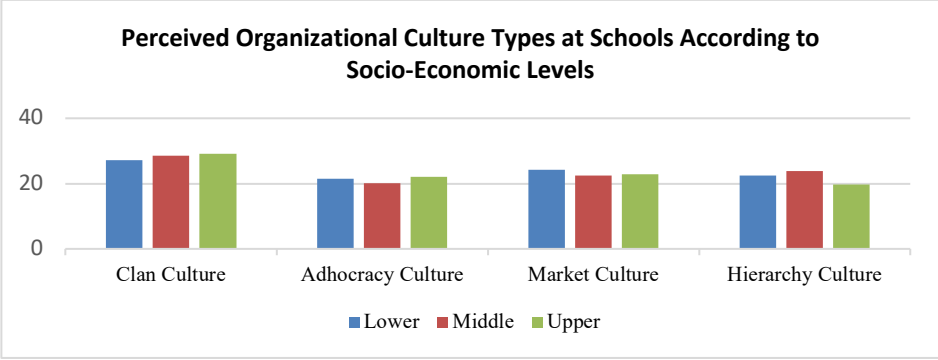

Figure 2. Perceived organizational culture types at schools according to socio-economic levels.

When the perceived situation perceptions of the teachers participating in the research are examined according to the socio-economic levels of the schools, 27% of the teachers working in lower socio-economic level schools find clan culture dominant while 21% of them find adhocracy culture more dominant. On the other hand, 24% of the teachers think market culture is dominant, and 22% of the teachers find hierarchy culture dominant. In other words, it is seen that in the perceived situation of organizational culture, at the schools at a low socio-economic level, clan culture is more dominant than the other three culture types. It is followed by market culture and seen that adhocracy culture and hierarchy culture are less dominant in comparison with others.

28% of the teachers working at middle socio-economic level schools state that clan culture is more dominant in their organizations, while 24% of them find hierarchy culture more dominant. On the other hand, 22% of the teachers claim that market culture prevails other culture types and 20% of them think adhocracy culture predominates. In other words, in the perceived situation, it is seen that clan culture from four culture types is more dominant than the others in the middle socio-economic level schools, it is also followed by the hierarchical culture. Adhocracy culture and market culture dominate at a lower rate than others.

29% of teachers working at upper socio-economic level schools indicate that clan culture is dominant in their organizations. 22% of the teachers think adhocracy culture; 23 % of the teachers think market culture and 20% of the teachers think hierarchy culture dominates at their schools. In other words, in the perceived situation, at upper socio-economic level schools, it is seen that clan culture from four culture types is more dominant than others, it is also followed by the culture of the market, and the culture of creativity and hierarchy are less dominant in comparison with others. In general terms, it is noteworthy that clan culture is dominant in the perceived culture types of schools at all socio-economic levels. The distribution of the preferred culture types of schools is given in Figure 3.

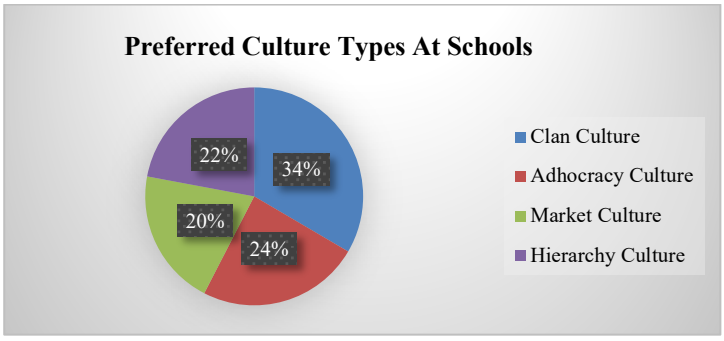

Figure 3. Distribution of preferred organizational culture types at schools.

When the preferred perceptions of the teachers in the study are examined, it is seen that 34% of the teachers state that they want clan culture in their organizations, while 24% prefer adhocracy culture, 22% prefer hierarchy culture and 20% want market culture. In other words, it is possible to say that clan culture from four cultural is more preferred types at schools than the other types of organizational culture, and that market culture is less preferred than the others. The distribution of preferred culture types according to socio-economic level is given in Figure 4.

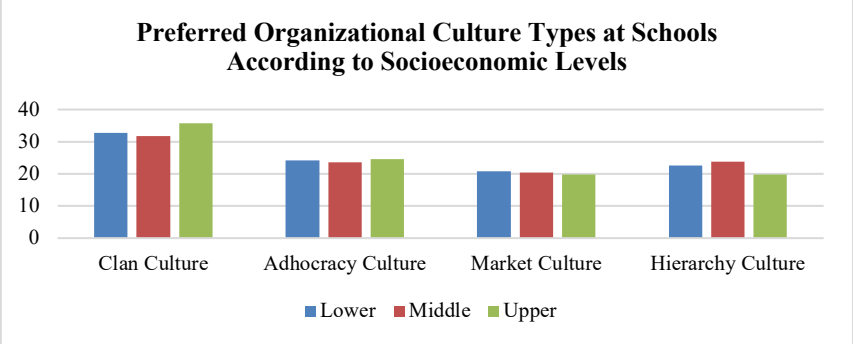

Figure 4. Types of preferred organizational culture in schools according to socio-economic levels.

When teachers' attitudes towards their schools are examined according to the socio-economic levels of schools, it can be said that 33% of the teachers working at lower socio-economic level schools want clan culture to dominate in their organizations. %24 of them prefer adhocracy culture to be more dominant, 22% of the teachers want hierarchy culture to dominate their schools, and 21% of the teachers want to see adhocracy culture more in their schools. In other words, in the preferred case, it is seen that clan culture from four culture types is preferred a little more than the others in the lower socio-economic level schools; clan culture is followed by the adhocracy culture; moreover, it is seen that market culture and hierarchy culture are desired at a lower rate than others.

32% of the teachers working at middle socio-economic level schools state that they target clan culture in their organizations, while 24% of them prefer adhocracy culture and the other 24% prefer hierarchy culture. 20% of them want to have a market culture in their organizations. In other words, in the preferred situation, it is seen that in the middle socio-economic level schools, clan culture from four culture types is desired to be more dominant than others, it is also followed by hierarchical culture. On the other hand, adhocracy culture and market culture are preferred at a lower rate than others.

36% of the teachers working at the upper socio-economic level schools target clan culture in their organizations, 25% of them want to have adhocracy culture, 20% of them want to have a culture of the market and 20% of them want to have a culture of hierarchy. In other words, it is seen that at upper socio-economic level schools, clan culture from four culture types is preferred a little more than others, it is also followed by adhocracy culture. Adhocracy culture and hierarchy culture are preferred at a lower rate than other culture types.

In general terms, it is noteworthy that clan culture is more desirable when we look at the preferred culture types of organizations at all socio-economic levels as it is in perceived culture types. In terms of both perceived and preferred culture types of organizations, although different types are predominantly present or preferred, all types of culture exist in all socio-economic levels, and all of them are intended to exist even at different rates. Descriptive statistics on perceived and preferred culture types are given in Table 2.

Table 2. Descriptive statistics about the perceived and preferred culture types in terms of socio-economic level.

Culture Types	Socio-economic Level	$\bar{X}$	S	N
Clan Culture Perceived	Lower	27,15	9,01	146
	Middle	28,48	8,27	64
	Upper	29,04	10,58	150
Clan Culture Preferred	Lower	32,71	9,74	146
	Middle	31,82	7,54	64
	Upper	35,70	10,99	150
Adhocracy Culture Perceived	Lower	21,48	5,24	146
	Middle	20,05	5,65	64
	Upper	22,03	5,44	150
Adhocracy Culture Preferred	Lower	24,10	5,51	146
	Middle	23,59	6,71	64
	Upper	24,65	5,54	150
Market Culture Perceived	Lower	24,15	7,22	146
	Middle	22,55	6,39	64
	Upper	22,83	6,45	150
Market Culture Preferred	Lower	20,76	5,40	146
	Middle	20,49	4,80	64
	Upper	19,77	6,11	150
Hierarchy Culture Perceived	Lower	27,15	8,60	146
	Middle	28,68	8,12	64
	Upper	25,75	10,35	150
Hierarchy Culture Preferred	Lower	22,55	7,49	146
	Middle	23,85	7,09	64
	Upper	19,74	7,23	150

When we look at Table 2, it is seen that the clan culture is more dominant in the schools at the upper socio-economic level than the other level schools, and it is observed that the schools in the upper socio-economic level target clan culture more than the other level schools. When the distribution of adhocracy culture according to socio-economic levels is examined, it is seen that at the schools at upper socio-economic level, adhocracy culture, like clan culture, is more dominant than it is at other level

schools, and it is preferred more in schools at upper socio-economic level than it is preferred at other level schools.

Considering the distribution of market culture according to socio-economic levels, it is seen that, unlike clan culture and adhocracy culture, it is more dominant in schools in lower socio-economic level than in other level schools. Moreover, it is preferred more at lower socio-economic level schools than in other level schools. Considering the distribution of hierarchy culture according to socio-economic levels, it is seen that, in contrast to the culture of clan culture and adhocracy culture as well as market culture, it is dominant at middle socio-economic level schools compared to other level schools; and it also appears to be preferred more in middle socio-economic level schools.

In the general sense, when the descriptive analysis data showing the distribution of school culture according to socio-economic levels are examined, it is seen that clan culture and adhocracy culture are more dominant in higher socio-economic schools and they are preferred more. It can be said that market culture is more dominant in lower socio-economic level schools and is preferred more. It can also be claimed that hierarchy culture is more dominant in middle socio-economic level schools and preferred more at this level schools. The findings regarding the significance of the difference between the scores of existing and preferred culture types are given in Table 3.

Table 3. T-test results in perceived and preferred culture types.

Culture Type	N	$\bar{X}$	S	sd	T	p
Clan Culture Perceived	360	5,62	11,60	359	-9,20	.000*
Clan Culture Preferred						
Adhocracy Culture Perceived	360	2,78	6,67	359	-7,92	.000*
Adhocracy Culture Preferred						
Market Culture Perceived	360	3,02	7,82	359	7,32	.000*
Market Culture Preferred						
Hierarchy Culture Perceived	360	5,23	10,05	359	9,87	.000*
Hierarchy Culture Preferred						

* $p<0.1$

When the opinions of teachers about the culture types in their schools are examined, it is found that there is a significant difference between the perceived situation and the preferred situation in the clan culture, [$t(359) = -9,20$, $p<0.1$]. There is a difference of 5,62 points between the perceived situation and the preferred situation, and the perceived state of the clan culture cannot meet the preferred situation. In other words, according to this result, teachers want to have a clan culture more in their schools.

Secondly, it has been found that there is a significant difference between the perceived situation and the preferred situation in the adhocracy culture dimension when the opinions of teachers about the types of culture in their schools are examined, [$t(359) = -7,92$, $p<0.1$]. There is a difference of 2.78 points between the perceived situation and the preferred situation. The perceived state of the adhocracy culture cannot meet the preferred situation. In other words, according to this result, teachers want adhocracy culture more in their schools.

Thirdly, when the opinions of teachers on the types of culture in their schools are examined, it has been found that there is a significant difference between the perceived situation and the preferred situation in the market culture dimension, [$t(359) = 7,32$, $p<0.1$]. There is a difference of 3.02 points between the perceived situation and the preferred situation. It is observed that the perceived situation of market culture is more than the preferred one. In other words, according to this result, teachers want to have market culture less in their schools.

Lastly, when the opinions of teachers on the culture types in their schools are examined, it is found that there is a significant difference between the perceived situation and the preferred situation in hierarchical culture dimension, [$t(359) = 9,87$, $p<0.1$]. There is a 5.23point difference between the perceived situation and the preferred situation, and it is seen that the perceived state of the hierarchy culture is more than the preferred one. In other words, according to this result, teachers want to have hierarchical culture less in their schools.

In general, it is seen that there is a significant difference between the perceived situation and the preferred situation in all types of organizations, the clan culture and adhocracy culture are less dominant

than desired in schools, and the culture of market and hierarchy are more dominant than desired. In other words, teachers think that the clan culture and adhocracy culture in schools create a more positive perception and that there should be more space for them than the other two types of culture.

Results, Conclusions and Recommendations

In this study, it is aimed to determine the perceived and preferred culture types related to the school and to reveal the significance of the difference between the points obtained in terms of culture types considering the socio-economic context. In this section, the perceptions of the participants about the type of organizational culture are examined first. While presenting the perceived and preferred culture types of organizations screening model is used. According to the results of the research, teachers think that there are more clan and hierarchy culture in their schools. The existence of the adhocracy culture and the market culture is relatively perceived less. Although the universe of the study is different, Erdem (2007) in his research, conducted in health organizations, has found that the culture of the hierarchy is perceived more, but the culture of a clan is perceived less. While presenting both culture types of organizations according to socio-economic levels, relational screening model is used. When the scores related to the existing culture types are examined in terms of socio-economic level, it is observed that clan culture is higher in upper socio-economic level schools and these points decrease towards lower socio-economic level; hierarchy culture is higher in lower and middle socio-economic schools; adhocracy culture is higher in upper socio-economic schools, and it is also seen that market culture is more in lower socio-economic level schools.

In this section, secondly, the perceptions of teachers about the preferred culture types are examined. When the results of the research in the context of preferred organizational culture type scores are examined, it is seen that teachers want to see more clan culture in their schools, followed by creativity and hierarchy culture respectively and the least preferred type of culture is the market culture. It can be argued that clan culture can have many positive reflections for organizations. Erdem's (2007) study shows that there is a greater organizational commitment in organizations where there is clan culture. In organizations with high hierarchy culture, the continuity of commitment, which is a sub-component of commitment and means an obligation, is high (Sezgin, 2010). When the scores regarding the preferred organizational culture are examined in terms of socio-economic level, similar results are observed. Clan and adhocracy culture scores are higher in the upper socio-economic level. The culture of the hierarchy is higher at the middle socio-economic level. In market culture, there are close points in terms of socio-economic level.

Lastly, in this section, the significance of the difference between the perceived culture type and the preferred culture type is examined. In the study, we discussed the perceived and preferred culture types and tried to reveal the gap between them because Cameron‘s (1985) study shows that the type of culture that organizations have not only identifies their identity, but also reveals their level of effectiveness as well as with other organizational attributes. It is known that institutions with strong cultures are no more effective than institutions with weak cultures. What identifies the effectiveness of the organization is the culture type (Cameron, 1985). Keyton (2005) states that organizations can have more than one type of culture. The first step is to reveal the current culture type or types of the organization in order to achieve the mentioned effectiveness. However, this culture type may not be created by common preference of the school community. It may cause from the preference of the manager/administrator/leader of the organization, minority of the group or some external factors. Therefore, for the congruent workplace, it is a necessity to know the common preferences of the population of the organization. For this purpose, in this study, perceived and common preferred culture types of teachers are tried to be examined. Afterwards, in order to contribute to the effectiveness of the school, the gap between perceived and preferred culture types is analyzed.

When the difference in points between the perceived and preferred culture types is analyzed statistically, it is seen that there is a significant difference in favor of the preferred situation in the clan and adhocracy culture, in favor of the perceived situation in the culture of market and hierarchy. In other words, teachers want to have more clan and creativity in their schools and prefer less to have market and control. The fact that in organizations with a high market culture, there is low organizational commitment and also that there is high stability in organizations with high hierarchy culture (Cameron & Quinn, 2017) justifies teachers in their perceptions. Having adhocracy thinking skills in the organization is a target for every school. This can be difficult to achieve in organizations with the culture of bureaucracy in which the standards, strict procedures and strict rules dominate. According to the results of these researchers, there is more innovation in the organizations where the adhocracy culture is higher, and imitation is more in the

organizations where the hierarchy culture is dominant. Weick and Quinn (1999) claimed that the rigorous reporting system in the classical bureaucratic organizations functioning as a machine slowed down the pace of change, making the organization virtually frozen. Another research that demonstrates the importance of clan and adhocracy culture was conducted by Lund (2003).

Based on the results of the research, it can be said that the increase of the clan which is higher in schools than in other culture types but not seen enough is more suitable for healthy school culture. Clan culture is associated with positive attitudes of employees (Lund, 2003), and that makes it more likely to contribute to the organizational effectiveness than adhocracy culture and market culture because it has a positive effect on employee attitudes (Hartnell et al., 2011). Therefore, it can be argued that there is a desire for clan culture and that the realization of this request will also greatly benefit the schools. As in the culture of a clan, it is necessary to increase the adhocracy culture, which is perceived as low in the perceived situation, in schools. For the culture of market and hierarchy, it can be said that an opposite practice will be appropriate. If schools were organizations that wanted to make a financial gain, it could be aimed to have a more competitive culture (Barney, 1986). Hartnell et al. (2011) found that market culture is more associated with financial effectiveness than other culture types. However, at schools, especially at public schools (this may be different in private schools), the finding that market culture is low can be said to be natural because these schools are non-profit-making and service-producing institutions. Higher competitiveness scores in schools may be considered as a result of the market among students or schools in the context of student achievement.

In order to develop a culture of a clan in schools, teams with co-ordinated functions can be established, and programs can be organized through these teams. Demirtaş (2010) concluded that the success of students is higher in schools where collaborative leadership, teacher clan and unity of purpose dominate. In order to develop an adhocracy culture, individuals in schools can be encouraged to take the initiative and schools can be transformed into flexible structures rather than a hierarchical structure (Cameron & Quinn, 2017). Although schools are organized bureaucratically, teachers and school administrators want to experience the rules and pressure less than bureaucracy brings together. In this case, it is considered necessary for school administrators to be transformational leaders who make their school open to change and transformation instead of being transactional leaders who implement rules. As in the culture of hierarchy, there is a reluctance to compete against at schools. There have been some studies which lead students to market, this situation creates a negative perception at schools. It is thought that the way to cope with this situation is in clan and adhocracy cultures. Improving relationships between students and school staff can lead to positive outcomes by transforming the school into a pleasant learning environment for the student and overcoming the problems arising from the socio-economic disadvantage. Yıldırım (2018), in his research, has found that socio-economic level influences organizational culture. Mainly in environments where students are educated together from different socio-economic levels, the effects against disadvantaged students are observed (Moore et al., 2017). Moore et al. (2017) have stated that the socio-economic disadvantage has a negative impact on student health and subjective well-being and that the way to cope with this negativity is to develop school staff-student relations.

Creating the preferred type of culture for schools is not an easy process. A problem that may be encountered in creating the preferred type of culture for schools may stem from the individual. If the individual is uncomfortable with the perceived culture type, s/he may desire a culture change. However, individuals who do not have any discomfort in the perceived culture of the organization may show resistance against the type of culture to be created. In this case, a leadership understanding that reflects open communication and transparency can facilitate the process, as well as having particular skills and competencies to implement the desired cultural change in the organization (Kavanagh & Ashkanasy, 2006). Besides, the creation of healthy learning environments can contribute to the creation of a culture that brings success in schools (MacNeil et al., 2009).

As a result, the most dominant type of organizational culture in the educational organizations is determined as clan culture, while the least dominant is determined as adhocracy culture. In all of the lower, middle and upper socio-economic levels, the most dominant type of organizational culture is clan culture, and the least dominant culture type is adhocracy culture and hierarchy culture. The fact that there is no difference between socio-economic levels shows that the environment in which schools are located does not cause a significant change in organizational culture. In the preferred situation, similarly, the most preferred type of organizational culture is clan culture, while the least preferred type of culture is the culture of the market. It can be said that teachers do not want to be in a race in their school, but they want to act together with their colleagues. At the lower, middle and upper socio-economic level schools, it is seen that the most desired type of culture is clan culture in the preferred situation, and the least desirable is the culture of the market. The fact that the findings are the same in all socio-economic levels means that

the location of the schools does not create a difference in the type of preferred culture. However, it should be noted that even though the rates are different, it is considered by the teachers that the existence of all types of organizational culture will contribute to the organization. The fact that there is a significant difference between the perceived and the preferred situation in all types of organizations shows that some culture types are not as dominant in organizations as they are expected and on the other hand some culture types dominate more than desired. It is expected in organizations to ensure the balance between the perceived situation and the preferred situation.

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