



The Relationship between Mind Types and Organizational Citizenship Behaviors of School Administrators

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Abstract

The purpose of the study is to investigate the relationship between school principals' mind types and their organizational citizenship behaviors[OCBs]. This research was carried out by the quantitative relational survey model. The study was conducted with 346 school administrators who work in different regions of Turkey. The data of this research has been collected by employing "Mind Types Scale" and "OCB Scale". According to the perceptions of administrators, the disciplinary, synthesizing and creating mind types of the administrators were high, respectful and ethical mind types and OCBs of the administrators were found to be very high. A high level relationship was found between the disciplinary and synthetic mind types of administrators. A positive moderate level relationship between the disciplinary mind and OCB, a positive intermediate level relationship between the synthetic mind and OCB, a positive weak level relationship between the creating mind and OCB, a positive medium level relationship between respectful mind and OCB, and a positive high level relationship between the ethical mind and OCB have been found. Ethical, respectful, synthetic mind were found to be a significant predictor of OCB, while disciplinary and creating mind type were not found to be a significant predictor of OCB.

Keywords: Organizational citizenship behaviour [OCB], mind types, school administrator, correlation

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Okul Yöneticilerinin Zihin Tipleri ve Örgütsel Vatandaşlık Davranışları Arasındaki İlişki

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Özet

Okul yöneticilerinin sahip oldukları düşünce, tutum ve davranışlar etkili okula ulaşmada en önemli belirleyicilerden biridir. Araştırmanın amacı okul yöneticilerinin zihin tipleri ile örgütsel vatandaşlık davranışları arasındaki ilişkiyi incelemektir. Bu araştırma nicel araştırmalardan ilişkisel tarama modelindedir. Çalışma Türkiye'de farklı bölgelerde görev yapan 346 okul yöneticisiyle gerçekleştirilmiştir. Veri toplama aracı olarak "Zihin Tipleri Ölçeği" ve "ÖVD Ölçeği" kullanılmıştır. Verilerin analizinde betimsel istatistik, korelasyon analizi ve çoklu regresyon analizi kullanılmıştır. Okul yöneticilerinin algılarına göre; yöneticilerin disiplinli, sentezci ve yaratıcı zihin tipleri yüksek; saygılı ve etik zihin tipleri ve okul yöneticilerinin örgütsel vatandaşlık davranışları çok yüksek düzeyde olarak bulunmuştur. Okul yöneticilerinin disiplinli ve sentezci zihin tipleri arasında yüksek düzeyde bir ilişki bulunmuştur. Disiplinli zihin ve ÖVD arasında pozitif orta düzeyde; sentezci zihin ve ÖVD arasında pozitif orta düzeyde; saygılı zihin ve ÖVD arasında pozitif orta düzeyde; sentezci zihin ve ÖVD arasında pozitif orta düzeyde; saygılı zihin ve ÖVD arasında pozitif orta düzeyde; sentezci zihin ve ÖVD arasında pozitif orta düzeyde; saygılı zihin ve ÖVD arasında pozitif orta düzeyde; bir ilişki belirlenmiştir. Etik, saygılı ve sentezci zihini öVD'nın anlamlı bir yordayıcısı iken; disiplinli zihin ve yaratıcı zihin tipinin ÖVD'nın anlamlı bir yordayıcısı iken; disiplinli zihin ve yaratıcı zihin tipinin

Anahtar Sözcükler: Örgütsel vatandaşlık davranışı [ÖVD], zihin tipleri, okul yöneticisi, korelasyon.

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Introduction

School administrators' thoughts, attitudes and behaviors are among the most important determinants in reaching an effective school. The role of school principals is very important in establishing the school culture, which are the building blocks of education, and in bringing the education system in a country to the track (Bursalioğlu, 2002). The school principal's leadership skills are crucial for administrators, teachers and students, as well as for the establishment of school culture, the fulfillment of the school's functions, and the realization of remote, general and specific objectives (Law&Glover, 2000). As Howard Gardner points out in multiple intelligence theory, people with different types of minds can develop their minds over time. One of the important goals of the 21st century is to ensure that individuals with different types of mind come together to create productive jobs and create a better world (Altan, 2011). It is thought that determining the types of mind of school administrators as an instructional leader in school culture is also important in creating qualified and successful school culture.

For years, researchers have been working on how the mind develops, is organized, what it looks like. In his book "Five Minds for the Future" Howard Gardner sets out the types of minds needed to adapt to the world of the future. According to Gardner (2007), these types of mind are, disciplinary mind, synthesizing mind, creating mind, respectful mind, and ethical mind. According to Gardner (2007), people who use the disciplinary mind actively have one or more disciplinary ways of thinking, go through a certain stage of growth and work continuously to improve their knowledge and skills. Today, with the changes in education, individuals with thinking styles specific to certain disciplines are needed in the school culture. Because it can be said that people who do not acquire a specific discipline-specific way of thinking will have difficulty in being a reliable guide or thought leader and can easily fall in to the wrong thoughts about their field. People who actively use the synthetic mind type receive information from different sources, make sense and evaluate it and integrate this information in a meaningful way for both themselves and others. Today, there is a lot of information confusion with the use of the internet and people need consistent and integrated information.

For this reason, their ability to integrate information from different sources in a coherent and consistent manner is very crucial. The creating mind type follows innovations, raises new ideas by asking unasked questions, develops different thinking styles, and achieves unusual results. When people with respectful mind type see differences between individuals and groups, they treat them with respect, try to understand others, and seek ways to cooperate with them. Finally, people of the ethical mind type think about the needs and demands of society through their own work. For the ethical mind person, it is important to know how employees can serve their country and work beyond their personal interests and how they can work with self-sacrifice for the peace of society. In the future, organizations must have these five types of mind in order to be successful and competitive (Hagen, 2013). Which mind type is the most effective in the structure of school culture: is it the disciplinary mind in which school principals' thinking styles towards certain disciplines is developed, the synthetic mind that can combine different information, the creating mind that can produce new and different things, the respectful mind that respects different thoughts, or the ethical mind that considers society? Which of these types of mind or which managers with the desired roles and behaviors for the organization to determine the more effective and efficient in determining the creation of more effective school cultures will be important?

School administrators' thoughts, attitudes and behaviors are one of the most important determinants of reaching effective school (Born, 1998). Therefore, it can be thought that the OCBs of school administrators are an important variable on the organizational climate of a school. Organizations need administrators who have positive citizenship behavior in order to survive (Yıldız, 2017). OCBs for schools are roles and behaviors that address all of the students, teachers and administrators that are exhibited beyond defined roles (Somech & Drach-Zahavy, 2004). Organizational citizenship behaviors can take many forms. Some of them are behaviors towards the individual, such as helping colleagues with their work-related problems, organizing the work schedule to adapt to them, showing them genuine courtesy, sharing work resources (technology materials,tools,...) with their colleagues. Some of them are behaviors that involve cooperation and solidarity towards the organization, such as supporting the social image of the organization, thinking

about the future of the organization beyond business requirements, protecting the organization from possible problems, and adapting to new developments in the organization (McShane & Von Glinow, 2016). OCBs of school administrators are effective in creating an effective and efficient school culture (Yildiz, 2017). Organizations with high performance have employees who perform other tasks effectively beyond their official duties (Khalid, Jusoff, Othman, Ismail & Abdulrahman, 2010). OCB is an important variable that positively affects employees' motivation levels, job satisfaction, performance and organizational commitment (Yildiz, 2017). OCBs have negative effects on intention to quit, job stress and lack of balance between private and business life (Dash & Pradhan, 2014). OC can be an individual's active contribution to the organization or avoiding behaviors that may harm the organization. OCBs contribute to the effectiveness of the school and reduce the difficulty of the school administrator's management role (Dipaola & Tschannen-Moran, 2001). In addition, OCBs increase organizational performance and strengthen mutual ties between members of the organization (Organ, 1988). When all these researches are analyzed, the fact that researchers frequently focus on OCBs suggests that OCBs are related to effectiveness, productivity, individual and organizational performance and are important variables for organizations. Scientific and technological developments continue to play an important role in the formation of new industries, in increasing the military defense capacities of countries, in triggering productivity in existing industries, in increasing the quality of life and in the accessibility of education. Therefore, the economic development of a country depends on its capacity to conduct scientific studies, development of technology, entrepreneurship environment and innovation capacity. The development of science and technology, which have significant contributions to the economy, depends on the existence of schools that can approach problems with a creative perspective, think freely, question, produce innovative solutions, and raise a generation that cares about solidarity. In Gardner's multiple intelligences theory, each of the different cognitive skills that can occur in individuals independently of each other is considered as a mind type (Özkan Hıdıroğlu & Hıdıroğlu, 2021). This theory of Gardner (2007) is very important today in educational organizations where the human type needed in 21st century learning environments will be trained. Considering the power of organizations that direct the economic development of countries in the 21st century, the aim of education is to train the manpower that will be needed by the companies that shape the world. Companies such as Apple, Google, Microsoft direct the world economy and the organizational citizenship behavior of the people working in these companies becomes very important. In this sense, it can be said that organizational citizenship behaviors, which are an important component of school organizations as well as private companies, will add a different perspective to today's organizational understanding of the relationship between five minds types suggested by Gardner (2007) that will shape the future. Through this research, it will be determined which types of mind have significant effects on organizational citizenship behaviors. In line with these meaningful effects, studies can be conducted to develop those mind types of managers or these types of mind can be taken into account in the criteria for selecting managers.

When the related literature is examined, a limited number of studies on the types of mind have been encountered. Gardner (2007) identified five types of minds that will build the future. Aran and Senemoglu (2014) aimed at revealing the level of the activities aimed at developing disciplinary mind characteristics in science and technology teaching and learning environments. Retna (2016) conducted in-depth interviews to identify the necessary capacities of these five minds and develop skills for these types of mind. In the study of Sabahizadeh,Keshtiarai and Yarmohammadian (2016), the effects of the five theories of mind on education were discussed. San, Kis and Erdemir (2018) developed a scale related to these types of mind. Dag (2017) aimed to determine the type of mind of classroom teachers. Özkan Hıdıroğlu and Hıdıroğlu (2021) aimed to determine the relationship between the mind types of mathematics teachers and their computer thinking skills in their study. OCBs were put forward in the 1960s and were clearly put forward by the Organ in 1977. When the studies in the literature are examined, it is seen that the studies related to OCBs are examined similar to the theory of Organ (1988). In this study, mind types of school administrators and the effects of these mind types on OCBs will be determined. Sub-problems for this purpose are:

- 1) What are the mind types levels of school administrators?
- 2) What is the level of OCBs of school administrators?
- 3) Is there a significant relationship between mind types and OCBs of school administrators?
- 4) Do the mind types of school principals significantly predict OCBs?

Method

Research Model

This research, which examines the effect of mind types of school principals on OCBs, is a quantitative relational survey model. By the relational survey model, it is aimed to reveal the existence and degree of the relationship amaong the variables (Karasar, 2005). In this study, mind types are considered as independent, OCBs as dependent variable.

Population and Sample

The population of this research consists of all school administrators working in Turkey during 2019-2020 academic year. From this population (81.063) a total of 346 school administrators volunteered to participate in this study. According to the sample calculation formula (Gay&Airasian, 1996), 338 administrators are considered sufficient to represent the population. Simple random sampling method was used in the research. Demographic characteristics of the school administrators participating in the study are given in Table 1.

Table 1

The demographic characteristics of the school	I administrators participating in the research
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Demographic characteristics	Groups	Frequency (n)	Percentage (%)
Gender	Female	122	35
	Male	224	65
Age	20-30	34	10
	31-40	163	47
	41-50	113	33
	51 and over	36	10
	0-10	91	26
Total Society	11-20	156	45
Total Seniority	21-30	79	23
	31 and over years	20	6
	0-2	85	24.5
Serie ite en el alei el eterte e	3-5	130	38
Seniority as an administrator	6-8	42	12
	9 and over years	89	25.5
	Mediterranean	45	13
	East Anatolia	21	6
	Aegean	46	13
Region	South East Anatolia	53	15
	CentralAnatolia	63	18
	Black Sea	40	12
	Marmara	78	23
Turno of duty	Principal	128	37
Type of duty	Viceprincipal	218	63

Data Collection

For the purpose of the study, "Demographic Characteristics Form", "Mind Types Scale" and "OCB Scale" were used to collect the necessary data.

Demographic Characteristics Form

This form includes questions about school administrators themselves. These questions are; gender, age, total seniority year, seniority years as administrator, the region they work for, type of duty variables.

Mind Types Scale

"Mind Types Scale" developed by San, Kis and Erdemir (2018) was used to determine the mind types of school administrators. The scale consists of 46 items and five dimensions which are;the disciplinary (DM) (items-1, 2, 3, 4, 5, 6, 7, 8, 9, 10), the synthesizing (SM) (items-11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21), creating (CM) (items-22, 23, 24, 25, 26, 27), respectful (RM) (items 28, 29, 30, 31, 32, 33, 34) and the ethical (EM) (items-35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46). Cronbach Alpha internal consistency coefficients were found as .81 in the "Disciplinary (DM)" dimension; .85 "Synthesizing (SM)" dimension; .66 in the "Creating (CM)" dimension; .79 "Respect (RM)" dimension and the .81 "Ethical(EM)" dimension.While developing "Mind Types Scale", 118 candidate items were created using Gardner's (2007) book named "Five Minds for The Future". 34 items were combined and eliminated in line with the referee feedback. Then the scale was divided into 5 sub-forms and applied. Exploratory and confirmatory factor analyzes were performed for each subscale, and Cronbach's-Alpha values were calculated. Factor loads of the scale are 0.836-0.475 for "disciplinary"; 0.760-0.409 for "synthesizing"; 0.740-0.419 for "creating"; 0.779-0.500 for "respectful"; 0.728-0.485 for "ethical". The eigenvalues of the dimensions of the scale are 6.487 for "disciplinary"; 5.590 for "synthesizing"; 2.306 for "creating"; 3.180 for "respectful"; 4.119 for "ethical". The variance explained by the "disciplinary" was 43.247%; "synthesizing" was 50.821%; "creating" was 38.429%; "respectful" was 45.426%; "ethical" was 34.324%. However, it was decided that the scale was a valid and reliable data collection tool for the research. In this study, Cronbach's-Alpha internal consistency coefficients were found as .88 in the "Disciplinary (DM)"; .93 "Synthesizing (SM)" dimension; .71 "Creating (CM)" dimension; .86 "Respectful (RM)" dimension and .89 "Ethical (EM)" dimension.

OCB Scale

In this study, OCB Scale developed by Podsakoff and MacKenzie(1989) based on Organ's (1988) five dimensions of OCBs. This scale was revised by Podsakoff, MacKenzie, Moorman and Fetter (1990) and Moorman (1991) and was adapted to Turkish for teachers by Polat (2007). The Cronbach's alpha reliability coefficient of the scale was .89. In this study, Cronbach Alpha reliability coefficient of the scale was .90. The scale, which was originally a 5-dimensional scale, emerged in 4 dimensions in Polat's study (solidarity, gentleness, conscientiousness and civil virtue). The items in the original scale's "help and courtesy" dimension were collected in one dimension. OCBs scale was applied in Turkish.

Data Analysis

The descriptive statistics techniques were used to determine and interpret mind types and OC levels of school administrators (for first and second sub-problems). Skewness and kurtosis coefficients were examined in order to determine whether school administrators' perception of mind types and OCs were normally distributed. According to Karagoz (2016), the skewness and kurtosis values should be between -2 and +2 in order for the data to show normal distribution. The obtained skewness and kurtosis coefficients are given in Table 2. For this study, it was determined that the variables of "disciplinary (DM)", "synthetisizing (SM)" and "OCBs of school administrators" did not show normal distribution.

Table 2

Skewness-kurtosis coefficients and results of normality analysis of mental types and OCBs

	Skewness Curtosis Distributio				
NI I II (NI)					
Disciplinary (DM)	-1.052	2.589	No Normal		
Synthesizing (SM)	962	2.453	No Normal		
Creating (CM)	382	097	Normal		
Respectful (RM)	-1.033	1.121	Normal		
Ethical (EM)	-1.249	1.929	Normal		
OCB	-1.507	5.029	No Normal		

Spearman Brown correlation analysis was used to determine the relationship between school principals' mind types and OCBs (3rd sub-problem).Multiple regression analysis was used to determine the effect of school administrators' mind types on OCBs (4th sub-problem).

Results

Data obtained by administering "Mind Types Scale" and "OCB Scale", were analyzed with appropriate quantitative data analysis techniques to respond to sub-problems. Findings are given below with tables.

Mind Types of School Administrators

Descriptive statistical techniques were used to find answers to the first sub-problem of the study, "What is the level of mind types of school administrators?". Analysis results are given in Table 3.

Table 3

Descriptive statistics on mind types and OCBs

	n	$\overline{\mathbf{x}}$	Sd	Level
Disciplinary (DM)		4.19	.537	High
Synthesizing (SM)		4.18	.571	High
Creating (CM)	346	3.94	.611	High
Respectful (RM)		4.34	.626	Very High
Ethical (EM)		4.43	.513	Very High

The mean values were found to be very low between 1-1.79, low between 1.8-2.59, moderate between 2.6-3.49, high between 3.5-5.29, very high between 4.3-5. Table 3 shows high levels of disciplinary, synthesizing and creating mind types of school administrators (X_D =4.19; X_S =4.18; X_C =3.94); respectful and ethical mind types were very high (X_R =4.34; X_E =4.43). When the arithmetic means are analyzed according to the school administrators' perceptions; managers have ethical (X_E =4.43), respectful (X_R =4.34), disciplinary (X_D =4.19), synthesizing (X_S =4.18) and creating mind (X_C =3.94) types. In the Table 4, the items that the administrators have at a very high level according to the perceptions of the school administrators are given.

Table 4

According to the managers, the items of the mind types found in the managers at a very high level	According to the managers,	the items of the mind	types found in the mana	igers at a very high level
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	Items	n	x	Ss
olinary	10)When I face problems, I focus on the solution.		4.49	.629
Discip	9)I update my knowledge by adapting it to new situations.		4.35	.711
sizing	20)Once I have enough information, I focus on drawing conclusions.		4.38	.666
Creating Synthesizing Disciplinary	11)I combine information from different sources in a consistent and harmonious way.		4.33	.668
Creating	26)I work with the desire to increase existing knowledge.		4.44	.683
-	28)I also value those who are not in my own group.	346	4.42	.711
Respectful	34)Instead of waiting for someone else to respect the differences I try to implement myself.		4.38	.801
pec	32)I don't see any one superior or the other below.		4.38	.893
Res	29)I understand the differences between people, societies and events.		4.35	.756
	33)I don't exclude anyone because of their preferences.		4.33	.882
	31)I don't approach people who want to be included in the groups I'm in.		4.32	.850
1	42)Loyalty in relationships is important to me.		4.67	.570
ica	41)Honesty is important to me, although it contradicts my conclusions.		4.67	.615
Ethical	37)I voluntarily pay everything I have to pay to the state (tax, military service, etc.).		4.52	.831
	44)I try to learn from the experiences of myself and others.		4.52	.686

39)I act with the awareness that I'm a role model for young people.	4.52	.682
40)I try to act in accordance with the moral principles even in cases where my elders (teacher, parent, supervisor) are condoned or not seen.	4.50	.699
43)I try to interpret things objectively.	4.48	.682
38)In social issues, I try to act principally, although it contradicts with my interest.	4.39	.777
45)I constantly question how much I fulfill my duties as a citizen.	4.34	.809

When table 4 is examined, it is observed that school administrators focus on solving the problem when they encounter problems in the disciplinary mind type; that they are focused on drawing conclusions after reaching sufficient information on the synthesizing mind type; that they are trying to increase their knowledge in the creating mind type; they also value individuals who are not from their own group in respectful mind type and value loyalty in relationships in ethical mind type.

OCBs of School Administrators

Descriptive statistical techniques were used to find the answer to the second sub-problem of the study: "What is the level of OCBs of school administrators?". Analysis results are given in Table 5.

Table 5

Descriptive Statistics on OCBs of School Administrators

	n	x	Sd	Level
OCB	346	4.38	.465	VeryHigh

The mean values were found to be very low between 1-1.79, low between 1.8-2.59, moderate between 2.6-3.49, high between 3.5-5.29, very high between 4.3-5. According to the perceptions of school administrators, OCBs of school administrators were found to be very high in Table 6.

Table 6

OC Items Which are Very High Among School Administrators According to the Perceptions of School Administrators

_	Items	n	$\overline{\mathbf{x}}$	Ss
	6)I pay attention to protect the rights of my teacher friends.		4.63	.610
	3)When my teacher friends have problems, I voluntarily allocate time to help		4.59	.668
	18)I voluntarily participate in all activities that strengthen the image of our		4.57	.665
	5)Before I make a decision about my school, I get the opinions of my friends who will be affected by the outcome of this decision.		4.53	.664
	20)I try to keep up with the changes in school.		4.50	.691
	13)I come to work on time.		4.48	.835
OCB	8)I always inform my managers before taking an important step in my	346	4.48	.758
õ	1)I help my teacher friends who have a heavy workload.	540	4.45	.772
	16)I obey to school rules, regulations, and process steps, even if no one		4.45	.730
	4)Even if the newly appointed teachers do not ask for help, I help them.		4.43	.789
	17)I monitor changes in school and take an active part in helping my teacher friends accept these changes.		4.40	.699
	19)I participate in all meetings that concern the school and actively participate in the discussions.		4.40	.716
	10)I can magnify small problems in my school.		4.33	.817

The Relationship Between Mind Types and OCBs of School Administrators

The third sub-problem of the study was "Is there a meaningful relationship between mind types of school administrators and OCBs?". In order to answer this sub-problem, Spearman Brown Correlation Analysis was employed and the results are given in Table 7.

Variables	Disciplinary	Synthesizing	Creating	Respectful	Ethical	ОСВ	Relationship between Mind type and OCB
Disciplinary	1	.764	.551	.457	.627	.539	Moderate Level
Synthesizing		1	.597	.452	.581	.516	Moderate Level
Creating			1	.457	.482	.447	Weak Level
Respectful				1	.619	.566	Moderate Level
Ethical					1	.695	High Level
OCB						1	

Table 7

Correlations between Variables

Since the disciplinary, synthesizing mind and OCBs do not show normal distribution, spearman correlation coefficient was used as the correlation coefficient. When interpreting the values; $.00 \le r \le .25$ very weak relationship, $.26 \le r \le .49$ weak relationship, $.50 \le r \le .69$ moderate relationship, $.70 \le r \le .89$ high level relationship, $.90 \le r \le 1.00$ was considered to have a very high level of relationship (Kalaycı, 2016). In this direction, the disciplinary and synthesizing mind positively high level (r=.76, p<.05); between the disciplinary and creating mind positively moderate (r=.55, p<.05); between disciplinary and respectful mind positively weak (r=.46, p<.05); between the disciplinary and ethical mind positively moderate(r=.63, p<.05); between the synthesizing and creating mind positively moderate(r=.60, p<.05); between the synthesizing and the respectful mind positively weak (r=.45, p<.05; between the synthesizing and ethical mind positively moderate(r=.58); between the creating and respectful mind positively weak(r=.46,p<.05); between the creating and ethical mind positively weak (r=.48, p<.05); respectful and ethical mind positively moderate relationship (r=.62, p<.05). There was a positive (r=.54, p<.05) positive relationship between the disciplinary mind and OCB; between the synthesizing mind and OCB positively moderate (r=.52, p<.05); between the creating mind and OCB positively weak (r=.45, p<.05); between the respectful mind and OCB positively moderate (r=.57, p<.05); There was a moderate (r=.70, p<.05) positive relationship between ethical mind and OCB.

Predictive Levels of School Administrators' Mind Types on OCB

A simple linear regression analysis was conducted to find the answer to the fourth sub-problem of the study; "Do the mind types of school principals significantly predict OCBs?". Analysis results are given in Table 8.

Table 8

Regression Analysis of School Administrators' Prediction of OCBs of Mind Types

	Variables	В	StandardError	β	t	Р
	Disciplinary	.036	.051	.042	.719	.473
В	Synthesizing	.100	.048	.123	2.086	.038
CE	Creating	.035	.034	.046	1.032	.303
0	Respectful	.131	.033	.176	3.925	.000
	Ethical	.471	.045	.519	10.399	.000

R=.785;R²=.616;P=.000;F=108.898

When t values and standardized β coefficient in Table 8 are examined, ethical (β =.519), respectful (β =.176) and synthesizing (β =.123), respectively (β =.176), are significant predictors of OC according to their relative significance level; creating (β =.046) and disciplinary mind (β =.042) are not a significant predictor of OC (R=.785;R²=.616). Ethical,r espectful and synthesizing mind explain %62 of the total variance in OCBs. According to the t-test results related to the significance of regression coefficients, it is seen that ethical (t=10.399), respectful (t=3.925), synthetic minds (t=2.086) are significant predictors of OCBs.

Discussion, Conclusion and Recommendations

According to the perceptions of school administrators, it was determined that the administrators' disciplinary, synthesizing and creating mind types were on high, respectful and ethical mind types were on very high level. Hagen (2013) stated that managers must have these five types of mind in order for organizations to be successful and adapt to competition. In addition, managers stated that they have ethical, respectful, disciplinary, synthesizing and creating mind types respectively. Similar to this study, Cetin and Ozcan (2004) reported that the majority of teachers reported positive opinions about the ethical behaviors of administrators. In addition, Özkan Hıdıroğlu and Hıdıroğlu (2021) determined in their study that mathematics teachers perceive their "ethical mind" at a very high level, but they perceive the "disciplinary mind", "synthesizing mind", "creating mind"; and "respectful mind" at a high level. It is stated in the 2023 Educational Vision Document that school management should be based on a specialization in the disciplinary mind and that for this purpose, professional development programs at graduate level will be designed to improve the general and field-oriented skills of school administrators (MEB, 2017a). For this reason, managers who can use the disciplinary mind at school will be needed. The 2023 Education Vision Document aims to simplify and integrate the databases used by the school administrators. When faced with a problem, administrators who can integrate different knowledge, skills and abilities related to the existing situation will be more successful in solving the problems. In this respect, school administrators with synthetic minds will be needed. When the school finds its real identity in accordance with the needs of the today's society, team building, production and consciousness of humanity in that institution will increase. The most critical factor in this process is the school administrator. The administrator is the person who can destroy the existing capacity of the school and produce dreams and life from very limited opportunities (2023 Education Vision Document, 2018). In this respect, it is important that school administrators have a creating mind. It is stated in the 2023 Education Vision Document that school administrators should have values and care about them. Accordingly, school administrators are expected to have both respectful and ethical minds. In this study, the perceptions of school principals were taken into consideration and their perceptions were high in three types of mind and very high in two types of mind. The main reason for the high level of opinion is the positive perception of managers. But when their perceptions are examined, the creating and synthesizing mind of these five types of mind is in the last two places. In other words, managers feel more incomplete in these two types of mind than others. Therefore, in the future studies, especially the difference between the school administrators' feeling of being creative or synthetic and being creative and synthetic can be investigated. Interviews with teachers about these types of mind of school administrators can be made and observations can be included in the school.

In the disciplinary mind, school principals stated that they mostly focus on solving the problem when faced with the problem. Problem solving is to produce appropriate solutions for the problems encountered by the school administrator by recognizing the environment and opportunities of the organization. Effective and continuous self-renewal of an organization is possible with the good use of problem solving techniques by the school administrator (Semerci and Celik, 2002). Guclu (2003) states that school principals should produce the best solution in every situation and that their problem solving skills should be improved. Similarly, Akar (2016) found that school administrators think that they are sufficient to have problem solving skills. School administrators are expected to produce fast, effective and accepted solutions to the problems they face due to their corporate visions and school development programs (Palanci&Okutan, 2010). In this respect, problem solving is important in the disciplinary mind of school administrators. Problem solving skills of school administrators can be determined by presenting case studies.

In the synthetical mind type, school principals stated that they focused on drawing conclusions after reaching the most sufficient information. Bursalioglu (2002) stated that school administrators should analyze problems, run decision-making processes and develop appropriate solution strategies. In order to achieve this, Bursalioglu (2002) stated that school principals need to reach sufficient information and that this knowledge, skills and abilities are related to leadership ability. By making interviews with school administrators, prominent situations in synthetic mind type can be revealed in detail.

In the creating mind type, school principals stated that they were trying to increase their knowledge.Gurbuz, Erdem and Yildirim (2013) stated that it is very important for school administrators to have sufficient information about teaching-learning issues in becoming an effective teaching leader. Ozcer (2005) defines creativity as the production of non existed knowledge by using knowledge and information. For this reason, it is an expected and desirable situation for school administrators to complete the existing information deficiencies and deepen their knowledge in order to create new and creative situations. Qualitative and mixed method research can be used to determine which missing information is completed and creativity of school administrators.

In the respectful mind type, school administrators stated that they also value individuals who are not from their group at the highest level. According to Calabrese (1988), the behaviors of school administrators should be integrated with the values of democratic society, different ideas and cultures should be tolerated, and all members of society should be respected. One of the keys to the survival of changing world organizations is to show sensitivity to differences, to respect and to evaluate these differences as wealth (Memduhoglu, 2011). Observations regarding school principals' respect for individuals who are not from their group and interviews with teachers from the same school culture can be made.

In the ethical mind type, school administrators stated that they value loyalty the most. Yee, Yeung and Cheng (2010) also stated that employee loyalty is an important factor in understanding the behavior of employees at work. In some studies conducted with the sample of school administrators, strong positive relationships were found between employee loyalty and school effectiveness (Hoy, Newland&Blazovsky, 1977). Studies on the organizational loyalty, organizational commitment and professional commitment of school administrators can be made and compared with the results that they value the most loyalty in school.

According to the perceptions of school administrators, OCBs of school administrators are very high. High OCBs in institutions are extremely important and necessary for the success and efficiency of institutions (MacKeinzce et al., 1998). It is therefore pleasing that school administrators have high perceptions of their OCB. However, there may be different results between the perceptions of managers and the current situation. Therefore, observations and interviews with teachers about OCBs of school administrators can be made and the current situation can be revealed in more detail.

There is a high level of relationship between the disciplinary and synthesizing minds of the mind types of school administrators. The reason for this situation can be considered as the necessity of the managers who can think specific to a discipline to synthesize their knowledge, skills and abilities on that subject and reach a thought in that direction and act.

There have been found a positive moderate level between disciplinary mind and OCB; a positive intermediate level between synthesizing mind and OCB; a positive weak level between creating mind and OCB; apositive moderate level between respectful mind and OCB; a positive high level relationship between ethical mind and OCB. Among the types of mind of school principals and OCBs, the most ethical mind; then synthesizing, disciplinary and respectful mind; finally, a relationship between the creating mind has been put forward. These results show that all types of mind, especially the ethical mind type, strengthen OCBs. The ethical mind-type behaviors of school administrators can be identified and presented as an opportunity for them to exhibit more OCBs.

While the ethical, the respectful and the synthesizing minds are a significant predictor of OCB; the disciplinary and the creating minds are not a significant predictor of OCB. OCBs are extra roles and behaviors that develop for the benefit of the organization that do not rely on any legal process and OCBs are thought to be related to the values of school administrators. The disciplinary and creating mind can be considered as cognitive mind types. Therefore, it can be said that the disciplinary and creating minds of school administrators do not predict OCBs significantly.

In the research, according to the perceptions of school principals, the relationship between school principals' mind types and OCBs according to the perceptions of school principals has been analyzed. Based on the findings, the following recommendations have been developed:

1) This study can be carried out by determining teachers' perceptions of administrators in order to determine the current status of school principals regarding both types of mind and OCBs in order to give more objective results.

2) Both mind types and OCBs of school administrators can be examined in detail by observing their behaviors in school settings.

3) This study was conducted with school administrators in Turkey. This research can be conducted in countries with different cultures and the results can be compared.

4) In this study, the relationship between mind types and OCBs of school administrators was examined. Studies can be conducted to reveal the relationship between different independent variables and mind types of school administrators.

5) OCBs of school administrators were determined by teachers' opinions in the related literature. There were no studies in which school administrators had their own perceptions of OCBs. These studies can be carried out with the sample of school administrators.

References

- Akar, H. (2016). Competence of knowledge management as a predictor of problem-solving skills of school administrators. *Journal of Education and Training Research*, 5(2),74-86.
- Altan, M.Z. (2011). Çoklu zekâ kuramı ve değerler eğitimi. Pegem Eğitim ve Öğretim Dergisi, 1(4),53-57.
- Aran, Ö.C. & Senemoglu, N. (2014). An investigation of science education in terms of disciplined mind characteristics. *Hacettepe University Journal of Education*, 29(4), 46-59.
- Born, D. (1998). Fransız eğitim sisteminde tarih, coğrafya ve yurttaşlık bilgisi tasarımı ve bu tasarımın yurttaşın oluşumuna katkısı" dersimiz yurttaşlık (Çev.Turhan Ilgaz). Istanbul: Kesit Publication.

Bursalioglu, Z. (2002). Okul yönetiminde yeni yapı ve davranış. PegemA Publication, Ankara.

- Calabrese, R.L. (1988.). Ethical leadership: A prerequisite for effective schools. NASSP Bulletin, 7(512), 1-4.
- Cetin, M., & Ozcan, K. (2004). Influence of school administrators' ethics behaviours on teachers' job satisfaction, Marmara University Atatürk Faculty of Education. Journal of Educational Sciences, (20)21-38.
- Dag,N.(2017). Gardner'ın zihin tasnifi ışığında sınıf öğretmenlerine ilişkin bir tahlil denemesi. Uluslararası Sosyal Bilimler Eğitimi Dergisi, 3(1),51-60.
- Dash, S., & Pradhan, R.K.(2014). Determinants&consequences of organizational citizenship behavior:A theoretical framework for Indian manufacturing organisations. *International Journal of Business and Management Invention*, *3*, 17-27.
- DiPaola, M.F., & Tschannen-Moran, M. (2001). Organizational citizenship behavior in schools and its relationship to school climate. *Journal of School Leadership*, *11*, 424-447.
- Gardner, H. (2007). Five minds for the future. Boston: Harvard Business School Press.
- Gay, L.R., & Airasian, P. (1996). *Educational research:Competencies for analysis and application* (6th ed.). Upper Saddle River, NJ:Merrill/Prentice Hall.
- Guclu, N. (2003). Lise müdürlerinin problem çözme becerileri. Milli Eğitim Dergisi, 160, 272-300.
- Gurbuz, R,. Erdem, E.&Yıldırım, K. (2013). The characteristics of successful school principals.*Dicle University Ziya Gökalp Journal of Faculty of Education*, 20, 167-179.
- Hagen, S. (2013). It takes an village. Thoughts about five minds for the future. http://businesstrainingadvisor.blogspot.com/2013/07/it-takes-village-thoughts-about-five.html
- Hoy, W.K., Newland, W., & Blazovsky, R. (1977). Subordinate loyalty to superior, esprit and aspects of bureaucratic structure. *Educational Administration Quarterly*, 13(1),71-85.
- Karagoz, M. (2016). SPSS 23 ve AMOS 23 uygulamalı istatistiksel analizler. Ankara: Nobel Publishing.

Karasar, N. (2005). Bilimsel araştırma yöntemi. Ankara: Nobel Publishing.

- Khalid, S. A, Jusoff, K., Othman, M., Ismail, M., & Rahman, N.A. (2010). Organizationalcitizenship behavior as a predictor of student academic achievement. *International Journal of Economics and Finance*, 2(1),65-71.
- Law, S., & Glover, D. (2000). Educational leadership and learning: Practice, policy and research. Buckingham: Open University Press.
- MacKeinzce, B.S., Podsakoff, M.P., & Ahearne, M. (1998). Some possible antecedents and consequences of in-role and extra-role salesperson performance. *J.Market*, 62, 87-98.
- Mcshane, S.L., &Von Glinow, M.A. (2016). Örgütsel davranış (Translation Edt. Ayşe Günsel, Serdar Bozkurt), Nobel Publishing, Ankara.
- Memduhoglu, H.B. (2011). Diversity management in high schools: individual attitudes, organizational values and administrative policies. *Mersin University Journal of the Faculty of Education*, 7(2),37-53.
- MEB (2017a). Milli Eğitim Bakanlığı, 2023 Vizyon Belgesi. http://2023vizyonu.meb.gov.tr/doc/2023_egitim_vizyonu.pdf
- Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behavior: do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, *76*, 845-855.
- Organ, D.W. (1988). Organizational citizenship behavior, the good soldier syndrome. Lexington, MA, Lexington Books.
- Ozcer, N. (2005). Yönetimde yaratıcılık ve yenilikçilik, Rota Publication, İstanbul.
- Ozkan Hidiroglu, Y., &Hidiroglu, C.N. (2021). The relationship between mathematics teachers' mind types and computational thinking skills. *Pamukkale University Journal of Education*. Retrived from https://dergipark.org.tr/tr/download/article-file/1420761 on 01.03.2021
- Palancı, M., & Okutan, M. (2010). Explanation of school administrators' problem solving skills with their personality traits, emotional intelligence and emphatic tendency. *Procedia Social and Behavioral Sciences*, 9, 1993-1997.
- Podsakoff, P.M., & MacKenzie, S.B. (1989). A second generation measure of organizational citizenship behavior. Unpublished manuscript, Indiana University, Bloomington.
- Podsakoff, P.M., MacKenzie, S.B., Moorman, R.H. & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1(2), 107-142.
- Polat, S. (2007). Relation between organizational justice perceptions, organizational trust levels and organizational citizenship behaviors of secondary education teachers. Unpublished doctoral thesis, Kocaeli University, Kocaeli, Turkey.
- Retna, K.S. (2016). Thinking about "design thinking": A study of teacher experiences. Asia Pacific Journal of Education, 36(1), 5-19.
- San, I., Kis, A. & Erdemir, N. (2018). *Scale for five minds for the future:development, validity and reliability.* 27th International Conference on Educational Sciences, Antalya.
- Sabahizadeh, M., Keshtiarai, N. & Yarmohammadian, M.H. (2016). The theory of five minds and its implications in education. *International Journal of Humanities and Cultural Studies*, April.
- Semerci, N. & Celik, V. (2002). İlköğretimde problemler ve çözüm yolları, Eğitim Yönetimi, 30, 205-218.
- Somech, A., & Drach-Zahavy, A. (2004). Exploring organizational citizenship behaviour from an organizational perspective: the relationship between organizational learning and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology*, 77(3),281-298.
- Yee, R.W.Y., Yeung, A.C.L., & Cheng, T.C.E. (2010). An empirical study of employee loyalty, service quality and firm performance in the service industry. *International Journal of Production Economics*, 24(1),109-120.
- Yildiz, G. (2017). The impact of organizational culture on the organizational citizenship behaviors of nurses working in private and state hospitals and an application, Unpublished Master Thesis, İstanbul Aydın University, Istanbul.