

Examining the Relationship Between School Size and School Climate in Public High Schools*

Genel Ortaöğretim Okullarının Büyüklüğü ile Okul İklimi Arasındaki İlişkinin İncelenmesi

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Abstract

The purpose of this study is to determine the relationships between school size and school climate in public high schools in Turkey. Survey model was used and the data was collected from 6,755 participants who are working and studying in 2009-2010 school year, in fifteen different city centre public high schools. Data was collected by "Perception of School Climate Scale (PSCS)" from 260 administrators, 1,084 teachers and 5,411 students. Results revealed that communication and human relations, problem behaviors and the sense of belonging to school varied depending on school size. Small schools surpassed medium and large schools in terms of communication and human relations. However, as the number of student's increased, the rate of problem behaviors also increased. Similarly, the sense of belonging in small schools was more intense in comparison to medium and large schools. According to the results of the study, the reduction of the schools size would be appropriate.

Keywords : School size, school climate, high schools, Turkey.

Öz

Bu araştırmanın amacı, Türkiye'deki ortaöğretim okullarının büyüklüğü ile okul iklimi arasındaki ilişkiyi belirlemektir. Tarama modeli kullanılan çalışmada, veriler 2009-2010 öğretim yılında onbeş il merkezindeki genel liselerde görev yapan ve öğrenim gören 6,755 katılımcıdan elde edilmiştir. Veriler "Okul İklimi Algısı Ölçeği" ile 260 okul yöneticisi, 1,084 öğretmen ve 5,411 öğrenciden elde edilmiştir. Araştırmada iletişim ve insan ilişkileri, istenmeyen davranışlar ve okula aitlik duygusu okul büyüklüğüne göre farklılaştığı belirlenmiştir. Küçük okullar, iletişim ve insan ilişkileri bakımından, orta büyüklükteki okullar ve büyük okullardan daha üstündürler. Bununla birlikte öğrenci sayısı arttıkça, istenmeyen davranışlarda da artış gözlenmiştir. Benzer olarak, küçük okullarda okula aitlik duygusu, orta büyüklükteki okullar ve büyük okullardan daha yoğun düzeydedir. Araştırmanın sonuçlarına göre okulların küçültülmesi uygun olacaktır.

Anahtar Sözcükler: Okul büyüklüğü, okul iklimi, ortaöğretim okulları, Türkiye.

* Bu çalışma TÜBİTAK tarafından desteklenen (109K553) nolu "Türkiye'de Genel Ortaöğretim Okullarının En Uygun Büyüklüğünün Belirlenmesi Araştırması"ndan (The General Secondary Schools (High Schools) Optimal Size in Turkey) üretilmiştir. Proje ile Türkiye'deki farklı büyüklükteki genel liselerin fiziksel koşullarının yeterliliği belirlenmeye çalışılmıştır. Proje ile ayrıca genel liselerde okul büyüklüğü ile okul iklimi arasındaki ilişkiyi belirlemek amaçlanmıştır. Proje ile ulaşılan sonuçların ilk kısmı Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi'nde (2012- 45/2), "Türkiye'de Genel Ortaöğretim Okullarının Büyüklüğüne Göre Fiziksel Koşulların Yeterliliği" başlıklı makale ile yayına dönüştürülmüştür.

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Introduction

In this study, the size of public schools in the city centers of Turkey is associated with the organizational climate of the schools. The relation of the school size with 'human relations and communication, problem behaviors and the sense of belonging to the school'; which are dimensions of organizational climate were discussed in detail. School size is a significant factor in terms of offering qualified educational services.

The issue of school size has not received the necessary attention until recent years. However, in recent years it has been subject to various researches (Akkalkan, 2009; Demircan, 2005; Kalfa, 2006; Karakütük, & Tuğ, 2004; Karakütük, Tuğ, Güngör, Bülbül, & Özdem, 2006; Özer, 2009). Although the sub-limits of the population in the settlements that allow a new school to be established have been legally regulated in Turkey, criteria with sub and upper limits regarding how many students should be in each school have not been identified yet. There are elementary and secondary schools with 3,000-4,000 students in the city centers. In regions where the student demand is high, the issue is attempted to be solved by crowding students into the school. It is a requirement that the school size is taken into consideration and the number of the students to be educated, as well as the number of the administrators and teachers to be assigned is planned in advance for a qualified education. On the contrary, overcrowded classrooms, split-day education (morning-afternoon) and using educational areas such as the library, computer room, laboratory as classrooms become widespread.

The studies on the significance of size, which started in the late 1950s, have developed significantly. Until 1980s, the catch-phrase "the bigger, the better" dominated the establishment of schools. It was accepted that social and economical needs can only be fulfilled by large scale approaches. As Allen (2002) mentioned, large schools established in cities made it possible to educate the 'worker' with the quality and quantity needed by the industry. As a result of these developments, schools with a few thousand students became more acceptable. Until recently, large schools were also accepted in Turkey. Until recently, families used to boast about sending their children to large schools. Large schools are asserted to be superior to the small schools in many aspects. The first advantages that come to mind are enabling the efficient use of the resources by offering an opportunity of education to more students with a certain amount of resources (Fowler, & Walberg, 1991; Harris, 2007), increasing the extent and the effectuality (Lindsay, 1982), offering various options to students that can support them with a richer culture, improving the students in various fields (Harris, 2007; Leithwood, & Jantzi, 2009; Wasley, 2002), enabling the students to participate in various activities owing to the immense opportunities of technological tools and infrastructure in the fields of sports, music, art, drama, etc... (Cotton, 1996; Hammond, Ross, & Milliken, 2006-2007; Hampel, 2002; Wasley, 2002), and enabling teachers assigned to these schools to improve themselves (Harris, 2007).

When the large schools were widespread, it was observed that solving some problems in these large schools became more difficult. Therefore, small schools began to draw more attention. Nowadays schools with thousands of students are not intended unless obligatory. In the recent research on school size, (Allen, 2002; Cotton, 1996; Cox, 2002; Craig, 2000; Dee, Ha, & Jacob, 2002; Hammond, Ross, & Milliken, 2006-2007; Hampel, 2002; Harris, 2007; Johnson, 2002; Leithwood, & Jantzi, 2009; Wasley, 2002), it was determined that as the schools got smaller, all of the students could use the physical opportunities; a climate in which the teachers wanted to take responsibility of student learning was formed; cooperative studies of teachers devoted to learning problems and efficient learning increased; depending on the increasing engagement of students, teachers and families, the educational build up of the society increased; flexibility increased and the interactive relation of parents with teachers and improving innovations got better, the quality and the efficiency of education improved; as the students got less obstructed, they could engage in individual interactions more; and the teachers created programs that are more appropriate to the student needs, which also gives the teachers the opportunity to get to know the students closer.

School size is an issue that should be taken into consideration in educational planning. School size is associated with school climate in research. The subject of school climate is restricted to its sub-dimensions, namely 'communication and human relations, problem behaviors and the sense of belonging to school'. Planning of the schools might be healthier if it can be determined which sizes have a more positive effect on human relations and communication, as well as sense of belonging to the school, and moreover which sizes enable problem behaviors to be experienced the least.

School size is defined as a feature developing collectively depending on the perceptions of the individuals at school and affecting all of them, affected by the behaviors of the individuals at school and has partial continuity (Hoy, 2003). Although many varying viewpoints towards school climate exist, it is agreed by all that it is a significant factor emerging from the organizational practices and affecting the attitudes and behaviors of the insiders (Çalık, & Kurt, 2010). In this study, the subject of school climate has been restricted to 'communication and human relations, problem behaviors and the sense of belonging to school'.

The subject of human relations and communication is a variant that should be given priority in organizational arrangements (Lee, & Burkam, 2003). School size affects the quality of relations and communications between the components of school. Most of the research indicates that human relations and communication is affected negatively as the school size increases (Dee, Ha, & Jacob, 2002; Karakütük, Tunç, Güngör, Bülbül, & Özdem, 2006; Leithwood, & Jantzi, 2009; Patterson, 2003).

School size affects the educational process through the social interaction between teachers, students and administrators. Small schools are distinguished from others in terms of the human relations and communication. The underlying reason behind this situation is indicated as the process of forming learning communities becomes more complicated due to increasing school size. Particularly in large schools, relations are formalized as a result of alienation. As a consequence, the quality drops, which in turn restricts the concentration of the students and educators on school. Instead of this, the interest in small schools, in which interaction and relations are intense, are on the rise (Dee, Ha, & Jacob, 2002). In research on school size, it was determined that the relationships between teachers and students were more positive and intense. Positive relationships influence the students positively and reduce dropout rates (Lee, & Burkam, 2003).

The problem behaviors are one of the most fundamental problems that today's schools try to overcome. Obstructive, detrimental, or corruptive behaviors towards the components of education such as the students themselves, other students, administrators, environment, educational structures and materials can be regarded as problem behaviors. The research proved that alienation, drug, alcohol and cigarette use, unfavorable habits and violence-related student behaviors increase, especially after a particular student capacity of schools. Such problem behaviors more easily emerge and spread in large schools (Agron, 2003; Hampel, 2002).

School size has a significant effect on the students and it may also impact the educational conditions at school. Pittman and Haughwout (1987) note that crowded student groups have a negative effect on the social participation and social climate and as a result, they also indirectly affect the sense of belonging to school negatively. The larger school size gets, the more difficult it is for the student to feel like a part of the community and grasp a positive social environment (Hammond, Ross, & Milliken, 2006-2007). This in turn negatively affects devotion to the school.

The literature mentions that the relationships between teachers and students intensifies as the school size gets smaller. It is also noted that the intensity of this relationship is a significant factor in reducing the absence and dropout rates. On the other hand, a growing school size restricts the collective decision making and participation of society, as well as the approaches to reduce the absence and dropout rates (Fetler, 1989; Haller, 1992; Lee, & Burkam, 2003; Pittman, & Haughwout, 1987). As Karakütük and Tunç (2004) mentioned, the issue of school size should still be taken seriously by educational circles. Extensive research is necessary in order to determine the school sizes according to the variants mentioned above. As can be seen in the literature, so far there has not been

enough work to assess the optimal schools size at the national level in Turkey. In this respect the study is tried to understand what size might be more appropriate in terms of sense of belonging to school, problem behaviors, human relations and communication in schools. However the research results may contribute the planning of secondary schools size at the national level.

Method

Sample and Research Instrument

This study was conducted in survey research design quantitative method.

Sample. For the purpose of deducting meaningful suggestions for Turkey from the research findings, 15 provinces were chosen by taking the "Education Sector Development Index", determined by the State Planning Organization (SPO) for the 81 provinces, into consideration. In the research 6.755 full and correct completed questionnaires taken from the returned 6.900 questionnaires. In compliance with this, a total of 6.755 participants, from a total of 15 provinces took part in the survey, 260 of which were administrators, 1.084 of which were teachers and 5,411 of which were students.

- I. Group (Adana, Kırklareli, Edirne); 72 administrators, 340 teachers, 1.696 students
- II. Group (Çanakkale, Adana, Sakarya); 53 administrators, 219 teachers, 1.292 students
- III. Group (Mersin, Elazığ, Trabzon); 46 administrators, 230 teachers, 1.217 students
- IV. Group (Kars, Erzurum, Giresun); 39 administrators, 140 teachers, 503 students
- V. Group (Batman, Van, Iğdır); 50 administrators, 155 teachers, 703 students

Schools with 600 students or less were regarded as 'small schools', schools with 601 to 1.200 students were regarded as 'medium schools', and the schools with 1,201 or more students were regarded as 'large schools' (Karakütük, Tunç, Güngör, Bülbül, & Özdem, 2006).

Research instrument and variables. Data were collected using "Perception of School Climate Scale (PSCS)". PSCS improved by researchers from the sacale tahat developed by Karakütük, Tunç, Güngör, Bülbül, & Özdem (2006). The scale consists of two sections. In the first section there was personal information about the interviewers and descriptive information about the schools, while there were 44 five-point Likert-type items.

It was determined that the factor loadings of the Human Relations and Communication (HRC) sub-scale varies from .38 to .67 in the student sample, from .50 to .74 in the teacher sample, and from .40 to .78 in the administrator sample. In all the samples, it was determined that HRC variant differed between 48%, 57% and 62% respectively. In the belonging to school (BS) sub-scale, we attempted to determine the perceptions, thoughts and attitudes of the students towards their schools. It was determined that the factor loadings of the BS sub-scale vary from .47 to .82 in the student sample, from .52 to .85 in the teacher sample, and from .58 to .85 in the administrator sample. In all the samples, it was determined that BS variant consisted of a single factor that differed as 44%, 49%, and 53%, respectively. In the Problem Behaviors (PB) sub-scale, we attempted to determine the status regarding problem behaviors. It was determined that the factor loadings of the PB sub-scale vary from .32 to .66 in the student sample, from .48 to .77 in the teacher sample, and from .51 to .79 in the administrator sample. It was determined that HRC variant differed between 50%, 56%, and 58%, respectively.

Analysis. One-Way Analysis of Variance (ANOVA) was performed in order to determine if communication and human relations, sense of belonging in school and problem behaviors differed significantly depending on school size (large-medium-small) and the education sector development level of the provinces. In order to determine from which group the difference between the groups originated, a Tukey test was conducted. The upper limit of error margin was accepted as .05.

Findings

Findings obtained within the framework of the research questions as well as the interpretation of these findings are included in this chapter. In Table 1, there is the result of the variance analysis on communication and human relations subscale according to school size.

Table 1.

Variance Analysis on Communication and Human Relations According to School Size

<i>Participants</i>	<i>School Size</i>	<i>n</i>	\bar{X}	<i>Ss</i>	<i>F</i>	<i>SD</i>
Administrator	Small	91	116.09	12.78	7.958*	1-S>M and L 2-M>L
	Medium	121	110.77	15.99		
	Large	48	105.33	18.44		
	Total	260	111.63	15.86		
Teacher	Small	319	106.94	14.80	52.133*	1-S>M and L 2- M>L
	Medium	520	100.93	16.88		
	Large	245	92.78	16.98		
	Total	1084	100.86	17.07		
Student	Small	1506	96.02	19.21	52.757*	1-S>M and L 2-M>L
	Medium	2437	91.58	18.51		
	Large	1468	89.12	18.40		
	Total	5411	92.15	18.86		

* $p < .05$ S=Small school, M=Medium school, L=Large school

The average points pertaining to administrators ($F = 7,958$, $p < .05$), teachers' ($F = 52.133$, $p < .05$) and students' ($F = 52.757$, $p < .05$) opinions on Human Relations and Communication according to school size showed a statistically significant difference. According to the results of the Tukey test, conducted to detect the source of the difference between the groups, Human Relations and Communication based sub-scale average points of the small schools' administrators, teachers and students that participated in the research are significantly greater than the average points of the administrators, teachers and students in medium and large schools. In a similar way, average points of the administrators, teachers and students in the medium schools are significantly greater than the average points of the administrators, teachers and students in the large schools. In Table 2, there is result of the variance analysis on communication and human relations subscale according to the education sector development level of the provinces.

Table 2.

Variance Analysis on Communication and Human Relations According to the Education Sector Development Level of the Provinces

Participants	Provincial Groups	n	\bar{X}	Ss	F	Significant Difference
Administrator	1 st Group	66	116.19	13.14	3.150*	1-1>5
	2 nd Group	53	112.36	14.88		
	3 rd Group	48	111.71	15.51		
	4 th Group	39	110.34	15.97		
	5 th Group	54	106.18	18.60		
	Total	260	111.63	15.86		
Teacher	1 st Group	300	106.41	15.12	25.265*	1-1>3, 4, 5 2-2>3 and 4
	2 nd Group	240	104.08	14.29		
	3 rd Group	249	95.14	18.85		
	4 th Group	139	101.13	18.34		
	5 th Group	156	94.09	15.43		
	Total	1084	100.86	17.07		
Student	1 st Group	1696	94.51	19.14	19.457*	1-1>3, 4, 5 2-2>3 and 4
	2 nd Group	1292	93.56	18.63		
	3 rd Group	1217	89.17	18.00		
	4 th Group	503	91.08	19.62		
	5 th Group	703	89.78	18.53		
	Total	5411	92.15	18.86		

*p<.05

The average points pertaining to the administrators' (F = 3.150, p<.05), teachers' (F = 25.265, p<.05) and students' (F = 19.457, p<.05) opinions on Human Relations and Communication according to the development level of the education sector in the provinces showed a statistically significant difference. According to the results of the Tukey test, Human Relations and Communication based sub-scale average points of the administrators in the provinces included in the 1st Group are significantly greater than the average points of the administrators in the provinces included in the 5th Group.

However, the opinions of the teachers differ more significantly according to the development level of the provinces. Human Relations and Communication based average points of the teachers in the provinces included in the 1st Group are significantly greater than the average points of the teachers in the provinces included in the 3rd, 4th and 5th Groups. Similarly, the average points of the teachers in the provinces included in the 2nd Group are significantly greater than the average points of the teachers in the provinces included in the 3rd and 4th Groups.

When students' opinions on Human Relations and Communication are taken into consideration, it can be said that the average points of the students in the provinces included in the 1st Group are significantly greater than the average points of the students in the provinces included in the 3rd, 4th and 5th Groups. Similarly, the average points of the students in the provinces included in the 2nd Group are significantly greater than the average points of the teachers in the provinces included in the 3rd and 4th Groups. In Table 3, there is the result of the variance analysis on problem behaviors subscale according to school size.

Table 3.
Variance Analysis on Problem Behaviors According to School Size

Participants	School Size	n	\bar{X}	Ss	F	Significant Difference
Administrator	Small	91	17.31	7.07	.987	-----
	Medium	121	18.16	5.97		
	Large	48	18.81	5.39		
	Total	260	17.98	6.28		
Teacher	Small	319	21.52	5.94	12.693*	1-L>M and S
	Medium	520	22.19	5.96		
	Large	245	24.03	6.22		
Student	Total	1084	22.41	6.08	7.725*	1-L>M and S
	Small	1506	26.06	7.28		
	Medium	2437	26.13	7.17		
	Large	1468	26.98	7.48		
	Total	5411	26.34	7.30		

*p<.05 S = Small school, M = Medium school, L = Large school

The average points of the teachers' ($F = 12.693$, $p < .05$) and the students' ($F = 7.725$, $p < .05$) opinions on problem behaviors showed a significant difference statistically. However, average points pertaining to the administrators ($F = .987$, $p > .05$) did not differ significantly. According to the Tukey test, problem student behaviors based sub-scale average points of the teachers and students in the large schools are significantly greater than the average points of the teachers and students in medium and small schools. In Table 4, there is the result of the variance analysis on problem behaviors subscale according to education sector development level of the provinces.

Table 4.
Variance Analysis on Students' Problem Behaviors According to the Education Sector Development Level of the Provinces

Participants	Provincial Groups	n	\bar{X}	Ss	F	Significant Difference
Administrator	1 st Group	66	17.80	6.89	.127	
	2 nd Group	53	17.83	6.49		
	3 rd Group	48	18.22	6.22		
	4 th Group	39	17.63	5.81		
	5 th Group	54	18.40	5.86		
	Total	260	17.98	6.28		
Teacher	1 st Group	300	22.06	5.87	6.538*	1-3>1, 2 and 4 1-5>2
	2 nd Group	240	21.36	5.77		
	3 rd Group	249	23.70	6.20		
	4 th Group	139	21.58	6.30		
	5 th Group	156	23.36	6.11		
Student	Total	1084	22.41	6.08	11.733*	1-2>1 and 5 2-3>1, 4 and 5
	1 st Group	1696	25.66	7.14		
	2 nd Group	1292	26.82	7.01		
	3 rd Group	1217	27.28	7.34		
	4 th Group	503	26.01	7.54		
	5 th Group	703	25.72	7.70		
Total	5411	26.34	7.30			

*p<.05

The average points pertaining to the teachers' ($F = 6.538, p < .05$) and students' ($F = 11.733, p < .05$) opinions on problem behaviors according to the development level of the education sector in the provinces showed a statistically significant difference. However, opinions of the administrators ($F = .127, p > .05$) did not differ significantly. According to the results of the Tukey test, problem behaviors based average points of the teachers in the provinces included in the 3rd Group are significantly greater than the average points of the teachers in the provinces included in the 1st, 2nd, and 4th Groups. Similarly, problem behaviors based average points of the teachers in the provinces included in the 5th Group are significantly greater than the average points of the teachers in the provinces included in the 2nd Group.

When the opinions of the students are taken into consideration, problem behaviors based subscale average points of the students in the provinces included in 2nd Group are significantly greater than the students in the provinces included in 1st and 5th Groups. Similarly, the problem behaviors based average points of the students in the provinces included in the 3rd Group are significantly greater than the average points of the students in the provinces included in the 1st, 4th and 5th Groups. In Table 5, there is the result of the variance analysis on sense of belonging subscale according to school size.

Table 5.
Variance Analysis on the Sense of Belonging to the School According to School Size

Participants	School Size	n	\bar{X}	Ss	F	Significant Difference
Administrator	Small	91	27.93	3.91	2.863*	1-S>L
	Medium	121	27.08	4.16		
	Large	48	26.18	4.65		
	Total	260	27.21	4.20		
Teacher	Small	319	25.87	4.11	29.530*	1-S>M and L 2-M>L
	Medium	520	24.49	4.45		
	Large	245	23.03	4.49		
	Total	1084	24.57	4.48		
Student	Small	1506	23.55	5.71	9.868*	1-S>M and L
	Medium	2437	22.76	5.65		
	Large	1468	22.80	5.86		
	Total	5411	22.99	5.74		

* $p < .05$ S= Small school, M= Medium school, L= Large school

The average points pertaining to the administrators' ($F = 2.863, p < .05$), teachers' ($F = 29.530, p < .05$) and students' ($F = 9.868, p < .05$) opinions on the sense of belonging to the school according to the school size showed a statistically significant difference. According to the results of the Tukey test, average points of the administrators in small schools are significantly greater than the average points of administrators in large schools.

Small school teachers' average points for the sense of belonging to school are significantly greater than the average points of the teachers in medium and large schools. In a similar sense, average points of the medium school teachers are significantly greater than the average points pertaining to the teachers in the large scaled schools. This finding indicates that small- and medium school students have a greater sense of belonging to their school than the students in large schools.

Finally, small school students' average points regarding the sense of belonging to school are significantly greater than the average points of the students in medium and large schools. In conclusion, it can be said that the small school students' sense of belonging to school is greater than the students in the large schools. In Table 6, there is the result of the variance analysis on sense of belonging subscale according to the education sector development level of the provinces.

Table 6.

Variance Analysis on the Sense of Belonging to School According to the Education Sector Development Level of the Provinces

Participants	Provincial Groups	n	\bar{X}	Ss	F	Significant Difference
Administrator	1 st Group	66	28.15	3.80	2.348	
	2 nd Group	53	27.42	3.98		
	3 rd Group	48	27.53	3.33		
	4 th Group	39	26.70	4.10		
	5 th Group	54	25.94	5.29		
	Total	260	27.21	4.20		
Teacher	1 st Group	300	25.70	4.14	17.419*	1-1, 2 and 4>3 and 5
	2 nd Group	240	25.31	4.06		
	3 rd Group	249	23.12	4.79		
	4 th Group	139	24.90	4.79		
	5. Group	156	23.25	3.98		
	Total	1084	24.57	4.48		
Student	1 st Group	1696	23.78	5.73	23,348*	1-1>2 and 3 2-2>3 3-4 and 5>3
	2 nd Group	1292	22.95	5.71		
	3 rd Group	1217	21.74	5.58		
	4 th Group	503	23.06	5.80		
	5 th Group	703	23.27	5.65		
	Total	5411	22.99	5.74		

*p<.05

Teachers' (F = 17.419, p<.05) and students' (F = 2.348, p<.05) opinions on the sense of belonging to school according to the development level of the education sector in the provinces showed a significant difference statistically. However, opinions of the administrators (F = 23.348, p>.05) did not significantly differ. According to the results of the Tukey test, the sense of belonging based average points of the teachers in the provinces included in 1st, 2nd, and 4th Groups are significantly greater than the average points of the teachers in the provinces included in 3rd and 5th Groups.

On the other hand, the sense of belonging based average points of the students in the provinces included in 1st Group are significantly greater than the average points of the students in the provinces included in 2nd and 3rd Groups. Similarly, the sense of belonging based average points of the students in the provinces included in 2nd Group are significantly greater than the average points of the students in the provinces included in the 3rd Group. Finally, the sense of belonging based average points of the students in the provinces included in 4th and 5th Groups are significantly greater than the average points of the students in the provinces included in 3rd Group.

Discussion

Results demonstrated that, according to the opinions of administrators, teachers and students, school climates in small, medium and large public high schools was differed significantly. It was also detected that administrators, teachers and students deem communication and human relations in small schools to be more positive than in medium and large schools, and that the large schools are considered to be the most negative regarding this issue. In this respect, it can be said that there is a relationship between school size and communication and human relations in schools, and that the quality of communication and human relations in a school improve depending on the decrease in student numbers. Some of the studies included in the literature (Dee, Ha, & Jacob, 2002; Lee, & Burkam, 2003; Leithwood, & Jantzi, 2009; Karakütük, Tunç, Güngör, Bülbül, & Özdem, 2006) also support the findings of this research. In the research, communication and the relationship between teachers and students were detected to be more positive in small schools. On the other hand, communication and human relationships were detected to be negatively affected by the growing size of schools.

Leithwood and Jantzi (2009) stated that more favorable conditions are likely to enhance human relations existing in small schools. Furthermore, it is more probable for students to know each other and their teachers, and for teachers to know their students. Patterson (2003) stated that the sense of "trust", the basis of human relations, can be developed more easily in small schools, because people trust each other only to the extent they know each other.

It was observed that the average points pertaining to administrators', teachers' and students' opinions on communication and human relations in schools differ significantly according to the development levels of the provinces. It was also observed that administrators', teachers' and students' perceptions on human relations and communication in schools increase parallel to the development level of the provinces. Social, cultural and economic indicators are known to increase parallel to the development levels of the provinces.

Teachers' and students' opinions on problem behaviors differ according to the school size. However, the opinions of administrators do not differ. Teachers and students in large schools, when compared to those in small and medium schools, consider problem behaviors in their schools to be greater. In other words, problem behaviors arise more frequently in large schools when compared to the small and medium ones. It is more difficult to solve those problems arising as a result of such behaviors in large schools. Problem behaviors were observed to increase parallel to the increasing number of students. Accordingly, it can be understood that the small and medium schools are more advantageous in the sense of avoiding problems. Some research results included in the literature prove that the problems arose as a result of problem behaviors increased in large schools. The research proved that alienation, drug, alcohol and cigarette use, unfavorable habits and violence-related student behaviors increase especially after a particular student capacity of schools, and proved the difficulty of developing inner discipline as well (Agron, 2003; Haller, 1992; Hampel, 2002). On the other hand, Karakütük, Tunç, Güngör, Bülbül and Özdem (2006) revealed that the problems, which surfaced as a result of problem behaviors, indicate a prominent decrease in small schools when compared to medium and large ones.

The teachers' and students' opinions on problem behaviors differ according to the development level of the provinces. However, administrators' opinions do not differ. Student' problem behaviors based points of the students in the provinces included in 2nd Group are significantly greater than the points of the students in the provinces included in 1st and 5th Groups. Similarly, problem student behaviors based points of the students in the provinces included in the 3rd Group are significantly greater than the points of the students in the provinces included in 1st, 4th and 5th Groups. Yet the most prominent point is the fact that perceptions of teachers and students in the provinces included in the 3rd Group are greater than the perceptions of those in other provinces. The level of problem behaviors in schools located in the most and least developed provinces is greater than the level of the problem behaviors in the schools located in medium-developed provinces. Considering the fact that the opinions of administrators do not differ according to the development level of the education sector in provinces, it seems hard to clearly reveal the differentiation of the development levels of the provinces, as well as the level of problem behaviors in schools. Haller (1992) determined that residential areas have a very limited affect on problem behaviors, while the indicators differ between different sized schools in the same residential area.

Administrators, teachers and students consider that the students' sense of belonging to school differs in different sized schools. Participants included in three groups think that the small schools affect students' sense of belonging to school more positively than the medium and large ones. On the other hand, it was detected that the sense of belonging to school is affected negatively by increasing school size. Considering the fact that the sense of belonging to school is one of the basic variables in learning, the students receiving education in small schools can be assumed to have a lot more advantages in terms of social and academic development than the students in medium and large schools. In research conducted at the University of Minnesota, it was detected that in the schools offering education for greater than 1.200 students, the students tend to go to school less, attendance-

related problems are greater, and they feel disturbed by the education staff members and students. On the other hand, students' sense of belonging to school decreases while alienation level increases (Argon, 2003; Hammond, Ross, & Milliken, 2006-2007; Pittman, & Haughwout, 1987). Several conclusions were reached in school size based research conducted by Viadero (2001) in recent years, and these results prove that the attendance rate is greater, dropout rate is less, and participation in non-curriculum activities is greater, while students feel more secure and behaviors-related problems are less in small schools.

In research conducted by Özdemir, Sezgin, Şirin, Karip and Erkan (2010), sufficient opportunities offered by the school, satisfaction with the academic programs, supportive attitudes of school administrators and teachers, violence perception in schools and a sense of belonging to school were defined as the precursors of a positive school climate. Dee, Ha and Jacob (2002) determined that the quality reduced and teachers' and students' focus on the school was limited with the relationships formalized due to the alienation in large schools. However, in the research conducted by Cox (2002), school size was emphasized to be a situational variance. Cox (2002) stated that the large schools sometimes bring successful results, while sometimes they do not. Klonsky (2002) indicates that students and teachers feel more secure in small schools. Acts of violence in the schools offering education services for 750 or more students in the United States is eightfold of the schools with 350 or less students. Furthermore, teachers do not want to serve in large schools. School security is one of the most important variables for teachers while choosing a school.

Conclusion

Based on the results of the research, it can be said that avoiding the large school mentality while planning school premises can be more expedient in offering a healthier education. Human relations, communication and the sense of belonging to school are negatively affected by the expanding size of schools, and problem behaviors arise, while solving the problem behavior-related problem becomes difficult. In the schools where limited numbers of students are receiving education, administrators, teachers and students can see each other more, more opportunities for establishing communication will be ensured, and the sense of being a community will grow stronger. As a result, the sense of belonging to school will progress and problem behaviors will decrease. According to these results, for a quality education, school size to be taken into account. There need to be more studies on how the size affects of the education quality, in terms of the types and levels of education.

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