



| Research Article / Araştırma Makalesi |

School-Related Factors Affecting 12th Grade Students' Academic Success While Preparing for Higher Education

Yükseköğretime Hazırlanırken 12. Sınıf Öğrencilerinin Akademik Başarılarını Etkileyen Okulla İlgili Faktörler¹

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Keywords

1. Higher Education
2. Academic Success
3. School Environment
4. School Management
5. Administrators

Anahtar Kelimeler

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Abstract

Purpose: The purpose of the research is to determine the views of students, teachers and school principals about factors affecting and the extent to which factors affect what degree to 12th-grade students' academic in the school environment during the high school preparation period. For this purpose, addressing school-related factors affecting academic success in terms of students, teachers, and administrators will provide educational administrators, who are individuals who coordinate all processes related to school, to evaluate how they manage the processes of their academic success through the eyes of students and teachers.

Design/Methodology/Approach: Descriptive survey model from quantitative research methods was used in the research. A proportional stratified sampling type of stratified sampling method was used to determine the study sample. Totally 2509 participants, that is 2072 students, 380 teachers and 57 administrators, participated in the research.

Findings: It was concluded that teachers think school-related factors affect students' academic achievement more than administrators and students. In this context, it can be said that the responsibility that school administrators feel towards increasing academic success is less than the teachers. According to the research results, it was concluded that students' perceptions of academic success differ according to their gender, the type of school they attend and the school's success. Teachers' and administrators' perceptions do not differ according to their gender, the type of school they work in, and the school's success.

Highlights: To adapt the managerial behaviours of administrators to the era and reflect them to practice in education environments, school administrators should provide training to gain skills.

Öz

Çalışmanın amacı: Bu araştırmanın amacı; yükseköğretime hazırlanırken 12. sınıf öğrencilerinin okullarında akademik başarılarını hangi faktörlerin ne derece etkilediğine ilişkin kendilerinin, öğretmenlerinin ve okul yöneticilerinin görüşlerinin belirlenmesidir. Bu amaca yönelik olarak; akademik başarıyı etkileyen okulla ilgili faktörlerin öğrenciler, öğretmenler ve yöneticiler açısından ele alınması okulla ilgili tüm süreçleri koordine eden bireyler olan eğitim yöneticilerine akademik başarılarına ilişkin okullarındaki süreçleri yönetme biçimlerini öğrenci ve öğretmenlerin gözünden değerlendirme fırsatı sunacaktır.

Materyal ve Yöntem: Araştırmada nicel araştırma yöntemlerinden betimsel tarama modeli uygulanmıştır. Çalışma örnekleminin belirlenmesinde olasılıklı örnekleme yöntemlerinden tabakalı örnekleme yönteminin orantılı tabakalı örnekleme türü kullanılmıştır. Araştırmaya 2072 öğrenci, 380 öğretmen ve 57 yönetici olmak üzere 2509 kişi katılmıştır.

Bulgular: Öğretmenlerin, yönetici ve öğrencilere göre okulla ilgili faktörlerin öğrencilerin akademik başarılarına etkisinin daha fazla olduğunu düşündükleri sonucuna ulaşılmıştır. Bu bağlamda, okul yöneticilerinin akademik başarının artmasına yönelik hissettikleri sorumluluğun öğretmenlere göre daha az olduğu söylenebilir. Araştırma sonuçlarına göre; öğrencilerin akademik başarıya ilişkin algılarının cinsiyetlerine, devam ettikleri okul türüne ve okulun başarısına göre farklılaştığı, öğretmen ve yöneticilerin algılarının ise cinsiyetlerine, görev yaptıkları okul türüne ve okulun başarısına göre farklılaşmadığı sonucuna ulaşılmıştır.

Önemli Vurgular: Eğitim ortamlarında yöneticilerin yönetsel davranışlarının çağa uyumlanması ve uygulamaya yansımaları için ortaöğretim yöneticilerine beceri kazandırmaya yönelik eğitimler verilmelidir.

¹ This study is produced on the Ph.D. Thesis titled "Factors Affecting 12th Grade Students' Academic Success and Future Expectations at Schools While Preparing for Higher Education", completed by Halime GÜNGÖR under the supervision of Prof. Dr. Şefika Şule ERÇETİN in Hacettepe University, Department of Educational Sciences, Department of Educational Administration, Supervision, Planning and Economics in July 2020.

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INTRODUCTION

Their educational level of them shapes the lives of individuals. In this sense, it can be said that under normal circumstances, high education level indicates good living conditions. Since development is continuous in today's world, society needs individuals who know how to criticize, question, think, interpret and have creative skills (Demircan & Tarriseven, 2014). Although the social, spiritual, emotional, physical and academic development of the student by his/her age and level is a whole, the student's academic success plays a crucial role in education. Individuals' academic success or failure is significant for themselves, their families, and society (Kaptan & Korkmaz, 2000); in addition, it is important to determine the decreasing factors that the academic success of students (Altinkurt, 2008). The first education of individuals who experience the process of birth, growth, development and change begins in the family and on the other hand, formal education begins when children reach school age in order to ensure the integration of individuals into society and to raise individuals who are suitable for social goals. The learning process of individuals who have completed school age continues throughout their life, both in business and social life. The task of the education system is to measure the student's academic success, make decisions about the students according to the results obtained, and direct the students to the field where they will be successful in their interests and abilities (Metin, 2016).

Success in formal education in Turkey is determined by the scores obtained from the exams. For this reason, both teachers and parents advise students that they should be successful by getting high grades in the exams. At this point, academic success or school success becomes more important. When evaluated in terms of society, it is seen that people with high academic success are distinguished from those with low academic success. It is accepted that people with high academic success have the potential for a more qualified workforce (Mencik, 2017).

The fact that the input and output of educational institutions are human shows that schools have critical importance in developing successful cooperation with society (Çelik & Namalır, 2018). As a result of the reflection of the developments in technology today on the lives of societies; although the expectations of the society from the individuals and the expectations of the individual from the society have increased and differentiated (Duru, Duru & Balkis, 2014), the higher the qualifications of the individual who has completed the formal education process, the higher his/her contribution to the society will be. A qualified workforce with high academic success is essential for social development (Hoge, Smit and Crist, 1997). It is accepted that academically successful students who are motivated to their goals, can motivate themselves, can cope with the difficulties they encounter, who accept success as an essential condition, who develop and renew themselves, who are equipped with the knowledge, are a vital force in the development of society (Bakan & Güler, 2017). In this sense, all organizational members must cooperate under school administrators' leadership to realize educational institutions' aims, objectives, mission and vision. When individuals in organizations are allowed to develop their ideas, rather than viewing organizational goals as intimidating features, the organization and management will benefit more from this situation than individuals in the organization (Erçetin & Bisaso, 2016). One of the most important goals of educational institutions is to raise academically successful individuals. Academic success, which is a necessity for adapting to the era rather than being the aim of the education system today, allows the development of new perspectives by changing the traditional view on education and the permanence of the learned information (Eker & Coşkun, 2012). Society strengthens by raising individuals suitable for the needs and expectations of society. Social needs and expectations evolve in proportion to the current age. In this sense, academic success can be defined as achieving its goal by displaying behaviours in line with the goals of the individuals and accordance with the gains in the education programs and the determined performance indicators.

Many factors affect academic success, but the main factor is school management and management style. Managers are primarily responsible for planning, executing and evaluating all activities related to the student's academic success. All activities related to the school are carried out with the management and coordination of the school principals with their consent and knowledge of the school principal. In this context, it can be said that the main factors related to the academic success of the students and the school are the educational administrators. The purpose of the research is to determine the views of students, teachers and school principals about factors affecting and the extent to which factors affect what degree to 12th-grade students' academic success during the university preparation period. For this purpose, addressing school-related factors affecting academic success in terms of students, teachers, and administrators will provide educational administrators, who are individuals who coordinate all processes related to school, to evaluate how they manage the processes of their academic success through the eyes of students and teachers.

METHOD/MATERIALS

A descriptive survey model from quantitative research methods was used in the research. A proportional stratified sampling type of stratified sampling method was used to determine the study sample. The study sample was planned to be composed of 12th-grade students, teachers and school administrators of 24 schools, which were determined by taking 17 districts of Bursa as strata. Since the number of schools in the Büyükşehir, Harmancık, Keles, and Orhaneli districts is low, no schools were included in the sample as a result of the sample calculations. The sample was calculated as 1 school in Gemlik, Gürsu, İznik, Karacabey, Kestel, Mudanya, Mustafakemalpaşa, Orhangazi, Yenişehir districts. In order to increase the internal consistency of the research, at least two schools were selected from the districts, one with high academic success and one with low academic success.

Therefore, in the districts that were calculated as 1 school in the sample, 2 schools were applied, each with a low and a high base score.

The research included 2509 participants, 2072 students, 380 teachers and 57 administrators. The personal information form prepared by the researchers and the Academic Achievement Scale developed by Erçetin, Güngör, and Hamedoğlu (2020) were used as data collection tools in the research. According to the Exploratory and Second Level Confirmatory Factor Analysis conducted by the researchers, the scale consists of 6 dimensions and 26 items, including school administrators and management style, teacher-related factors, curriculum, teaching environment and contribution of parents, physical qualifications, the impact of the student's characteristics. It was found that the corrected item-total correlations of the scale ranged between .45 and .86, and the Cronbach's alpha coefficients were between .71 and .99. Data collection tools were applied to the schools by the researcher in February and March of the academic year 2019-2020. First, the Kolmogorov Smirnov Test was used to test whether the scores of the variables about the specified categories are suitable for the normal distribution, and whether the variance condition was met or not was tested by the Levene's Test. Mann-Whitney U test was used to test the difference between the two categories of the variable in non-parametric tests, the t-test was used in parametric tests, and Kruskal-Wallis was used to test the difference when there were more than two categories in non-parametric tests, and ANOVA was used in parametric tests. ACCORDING TO KRUSKAL-WALLIS TEST RESULTS, Mann-Whitney U was used for multiple comparisons of statistically significant results. Scheffe Test was used for multiple comparisons of the results that were found to be significant according to the ANOVA result (Büyükoztürk et al., 2014; Can, 2017). The response given by the participants to the Academic Achievement Scale were evaluated and interpreted as follows; if the arithmetic means obtained is between 4.21 and 5.00, this means "the highest effects" academic success; if it is between 3.41-4.20, "highly affects", if it is between 2.61-3.40, it affects academic success in "medium level", if it is between 1.81-2.60, it affects academic success in "low level", if it is between 1.00-1.80 it does not affect academic success. Characteristics of the research sample are presented in Table 1.

Table 1. Characteristics of the research sample

Districts	12th Grade Students	Teacher	Administrators
Gemlik	183	7	3
Gürsu	98	19	4
İnegöl	229	59	7
İznik	59	16	2
Karacabey	50	9	5
Kestel	147	20	5
Mudanya	170	32	4
Mustafakemalpaşa	56	15	3
Nilüfer	172	25	3
Orhangazi	94	21	2
Osmangazi	574	81	12
Yenişehir	51	17	3
Yıldırım	189	59	4
Total	2072	380	57
General Total			2509

FINDINGS

Descriptive statistics of students', teachers' and administrators' perceptions of school-related factors affecting students' academic success are presented in Table 2.

When Table 2 is examined, it is seen that the average point of teachers' perceptions of school-related factors affecting students' academic success are $\bar{x}=4.21$, perceptions of administrators are $\bar{x}=4.12$, and perceptions of students are $\bar{x}=3.81$. While teachers think that school-related factors affect students' academic success at the highest level, administrators and students think that they affect them at the high level. When the averages of the sub-dimensions of the scale are examined, it is seen that the highest average is in the dimension of the effect of the impact of students' individual characteristics (teacher $\bar{x}=4.51$, administrator $\bar{x}=4.46$) according to the perceptions of teachers and administrators, and in the dimension of teacher-related factors ($\bar{x}=4.14$) according to student perception. In this sense, the teachers and administrators participating in the research think that impact of students' individual characteristics that affect the academic success of the students the most and make a difference in academic success, while the students participating in the research attribute the high academic success to teachers. When the averages of the perceptions of teachers and administrators in the sub-dimensions of the scale are examined, it is seen that the lowest average is in the dimension of curriculum (teacher $\bar{x}=3.74$, administrator $\bar{x}=3.49$), and according to student perceptions, the lowest average is in the dimension of the teaching environment and contribution of parents ($\bar{x}=3.51$).

Table 2. Descriptive statistics of students', teachers' and administrators' perceptions of school-related factors affecting students' academic success.

Variables	Group	N	\bar{X}	ss	Max.	Min.	Level
Academic Success	Student	2072	3.81	.71	1	5	high level
	Teacher	380	4.21	.57	1	5	the highest level
	Administrator	57	4.12	.72	1	5	high level
1. School Administrators and Management Style	Student	2072	3.74	.82	1	5	high level
	Teacher	380	4.31	.67	1	5	the highest level
	Administrator	57	4.21	.77	1	5	the highest level
2. Teacher Related Factors	Student	2072	4.14	.94	1	5	high level
	Teacher	380	4.42	.68	1	5	the highest level
	Administrator	57	4.32	.87	1	5	the highest level
3. Curriculum	Student	2072	3.61	.98	1	5	high level
	Teacher	380	3.74	.79	1	5	high level
	Administrator	57	3.49	1.01	1	5	high level
4. Teaching Environment and Contribution of Parents	Student	2072	3.51	.84	1	5	high level
	Teacher	380	4.01	.69	1	5	high level
	Administrator	57	4.03	.76	1	5	high level
5. Physical Qualifications	Student	2072	3.95	.96	1	5	high level
	Teacher	380	4.29	.70	1	5	the highest level
	Administrator	57	4.22	.86	1	5	the highest level
6. Impact of Students' Individual Characteristics	Student	2072	4.06	1.01	1	5	high level
	Teacher	380	4.51	.78	1	5	the highest level
	Administrator	57	4.46	.81	1	5	the highest level

Kruskal Wallis test results on the perceptions of students, teachers and administrators about school-related factors affecting their academic success are presented in Table 3.

Table 3. Kruskal Wallis test results on the perceptions of students, teachers and administrators about school-related factors affecting their academic success

Variables	Group	N	\bar{X}	Rank Av.	χ^2	p	Difference
Academic Success	Student	2072	3.81	1180.41	126.718	.000*	Student-Administrator Student-Teacher
	Teacher	380	4.21	1618.53			
	Administrator	57	4.11	1543.04			
	Total	2509	3.88				
1. School Administrators and Management Style	Student	2072	3.74	1164.08	189.141	.000*	Student- Administrator Teacher- Administrator
	Teacher	380	4.31	1695.59			
	Administrator	57	4.21	1622.79			
	Total	2509	3.84				
2. Teacher Related Factors	Student	2072	4.14	1220.79	27.819	.000*	Student- Teacher
	Teacher	380	4.42	1423.43			
	Administrator	57	4.32	1375.82			
	Total	2509	4.18				
3. Curriculum	Student	2072	3.61	1246.51	4.404	.111	-
	Teacher	380	3.74	1317.45			
	Administrator	57	3.45	1147.11			
	Total	2509	3.62				
4. Teaching Environment and Contribution of Parents	Student	2072	3.51	1174.60	147.355	.000*	Student- Administrator Teacher- Administrator
	Teacher	380	4.01	1633.98			
	Administrator	57	4.02	1651.02			
	Total	2509	3.60				
5. Physical Qualifications	Student	2072	3.95	1213.64	39.433	.000*	Student- Teacher
	Teacher	380	4.29	1454.23			
	Administrator	57	4.21	1430.26			
	Total	2509	4.01				
6. Impact of Students' Individual Characteristics	Student	2072	4.06	1194.17	87.618	.000*	Student- Administrator Student- Teacher
	Teacher	380	4.51	1546.21			
	Administrator	57	4.45	1524.96			
	Total	2509	4.13				

*p<.05

When Table 3 is examined, it is seen that the perceptions of teachers, administrators and students regarding the factors affecting the academic success of students are found statistically significantly different [$\chi^2_{(2)} = 126.718$, $p < .05$]. As a result of multiple comparisons of the Mann-Whitney U Test, it was found that perceptions of administrators ($\bar{x}=4.11$ high level) and

teachers ($\bar{x}=3.81$ high level) about the factors affecting students' academic success were higher than students ($\bar{x}=3.81$ high level) and this difference is statistically significant. When the scores related to the dimensions of the scale are examined, it is seen that statistically significant difference was found according to the views of teachers, students and administrators in the dimensions of school administrators and management style, teacher-related factors, teaching environment and contribution of parents, physical qualifications, and the impact of students' individual characteristics [$\chi^2_{(2)} = 189.141, p < .05$]. As a result of the multiple comparisons of the Mann-Whitney U-Test, perceptions of administrators ($\bar{x}=4.21$ the highest level) are higher than students ($\bar{x}=3.74$ high level) and perceptions of teachers ($\bar{x}=4.31$ the highest level) are higher than administrators ($\bar{x}=4.21$ the highest level) in school administrators and management style dimension. The perceptions of administrators ($\bar{x}=4.02$ high level) are higher than students ($\bar{x}=3.51$ high level) and teachers ($\bar{x}=4.01$ high level) in teaching environment and contribution of parents dimension. The perceptions of administrators ($\bar{x}=4.45$ the highest level) are higher than students ($\bar{x}=4.06$ high level) and perceptions of teachers ($\bar{x}=4.51$ the highest level) are higher than administrators ($\bar{x}=4.45$ the highest level) in impact of students' individual characteristics dimension. The perceptions of administrators ($\bar{x}=4.42$ the highest level) are higher than students ($\bar{x}=4.14$ high level) in teacher related factors dimension and similarly perceptions of teachers ($\bar{x}=4.29$ the highest level) are higher than students ($\bar{x}=3.95$ high level) in physical qualifications dimension. The views of administrators, teachers and students are similar in curriculum dimension. Mann-Whitney U test results according to the gender of students' self-perceptions about school-related factors affecting their academic success are presented in Table 4.

Table 4. Mann-Whitney U test results according to the gender of students' self-perceptions about school-related factors affecting their academic success

Variables	Sex	N	\bar{X}	Rank Av.	U	P
Academic Success	Female	1152	3.91	1129.52	422766.000	.000*
	Male	920	3.80	920.03		
	Total	2072	3.81			
1. School Administrators and Management Style	Female	1152	3.84	1114.52	440042.500	.000*
	Male	920	3.62	938,81		
	Total	2072	3.74			
2. Teacher Related Factors	Female	1152	4.22	1095.34	462137.500	.000*
	Male	920	4.03	962.82		
	Total	2072	4.14			
3. Curriculum	Female	1152	3.70	1094.00	463680.000	.000*
	Male	920	3.49	964.50		
	Total	2072	3.61			
4. Teaching Environment and Contribution of Parents	Female	1152	3.59	1092.03	465953.000	.000*
	Male	920	3.42	966.97		
	Total	2072	3.51			
5. Physical Qualifications	Female	1152	4.04	1108.24	447274.500	.000*
	Male	920	3.83	946.67		
	Total	2072	3.95			
6. Impact of Students' Individual Characteristics	Female	1152	4.18	1112.42	442464.000	.000*
	Male	920	3.91	941.44		
	Total	2072	4.06			

* $p < .05$

When Table 4 is examined, it is seen that students' perceptions of school-related factors that affect their academic success are found statistically significantly different according to gender ($U=422766.000, p < .05$). Perceptions of female students ($\bar{x}=3.91$ high level) are higher than male students ($\bar{x}=3.80$ high level). In the dimensions of the scale, students' perceptions of the factors affecting their academic success are found significantly different in all dimensions according to the gender of the students. In all dimensions, female students' perceptions of school-related factors affecting their academic success (respectively $\bar{x}=3.84$ high level, $\bar{x}=4.22$ the highest level, $\bar{x}=3.70$ high level, $\bar{x}=3.59$ high level, $\bar{x}=4.04$ high level, $\bar{x}=4.18$ high level) are higher than male students (respectively $\bar{x}=3.62$ high level, $\bar{x}=4.03$ high level, $\bar{x}=3.49$ high level, $\bar{x}=3.42$ high level, $\bar{x}=3.83$ high level, $\bar{x}=3.91$ high level). Mann-Whitney U Test results according to gender of teachers' perceptions of school-related factors affecting students' academic success are presented in Table 5.

When Table 5 is examined, it is seen that teachers' perceptions of school-related factors that affect students' academic success do not differ significantly according to their gender ($U= 16128.500, p < .05$). In other words, the views of male and female teachers on school-related factors affecting students' academic success are similar.

Table 5. Mann-Whitney U Test results according to gender of teachers' perceptions of school-related factors affecting students' academic success

Variables	Sex	N	\bar{X}	Rank Av.	U	P
Academic Success	Female	182	4.26	200.88	16128.500	.077
	Male	198	4.16	180.96		
	Total	380	4.21			
1. School Administrators and Management Style	Female	182	4.36	197.17	16804.500	.251
	Male	198	4.27	184.37		
	Total	380	4.31			
2. Teacher Related Factors	Female	182	4.48	198.35	16589.500	.167
	Male	198	4.37	183.29		
	Total	380	4.42			
3. Curriculum	Female	182	3.79	195.24	17155.000	.417
	Male	198	3.70	186.14		
	Total	380	3.74			
4. Teaching Environment and Contribution of Parents	Female	182	4.06	197.15	16808.000	.256
	Male	198	3.97	184.39		
	Total	380	4.01			
5. Physical Qualifications	Female	182	4.37	200.51	16196.500	.084
	Male	198	4.23	181.30		
	Total	380	4.29			
6. Impact of Students' Individual Characteristics	Female	182	4.56	200.79	16146.000	.061
	Male	198	4.46	181.05		
	Total	380	4.51			

*p<.05

Mann-Whitney U Test results of administrators' perceptions of school-related factors affecting students' academic success by gender are presented in Table 6.

Table 6. Mann-Whitney U Test results of administrators' perceptions of school-related factors affecting students' academic success by gender

Variables	Sex	N	\bar{X}	Rank Av.	U	P
Academic Success	Female	14	3.97	25.82	256.500	.409
	Male	43	4.16	30.03		
	Total	57	4.11			
1. School Administrators and Management Style	Female	14	4.01	24.61	239.500	.249
	Male	43	4.27	30.43		
	Total	57	4.21			
2. Teacher Related Factors	Female	14	4.21	26.71	269.000	.539
	Male	43	4.35	29.74		
	Total	57	4.32			
3. Curriculum	Female	14	3.46	28.14	289.000	.823
	Male	43	3.49	29.28		
	Total	57	3.49			
4. Teaching Environment and Contribution of Parents	Female	14	3.93	26.96	272.500	.595
	Male	43	4.06	29.66		
	Total	57	4.02			
5. Physical Qualifications	Female	14	4.07	25.57	253.000	.364
	Male	43	4.26	30.12		
	Total	57	4.21			
6. Impact of Students' Individual Characteristics	Female	14	4.16	22.75	213.500	.076
	Male	43	4.55	31.03		
	Total	57	4.45			

*p<.05

When Table 6 is examined, it is seen that the perceptions of the administrators regarding the school-related factors that affect the academic success of the students do not differ significantly according to their gender ($U=256.500$, $p>.05$). In other words, the views of male and female administrators on school-related factors that affect students' academic success are similar. Kruskal Wallis Test results of students' own perceptions of school-related factors affecting their academic success according to school type are presented in Table 7.

Table 7. Kruskal Wallis Test results of students' own perceptions of school-related factors affecting their academic success according to school type

Variables	School Type	N	\bar{X}	Rank Av.	χ^2	p	Difference
Academic Success	VTHS	645	3.57	832.21	110.160	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS
	AHS	993	3.92	1128.42			
	AiHHS	182	3.88	1097.32			
	SHS	252	3.96	1153.25			
	Total	2072	3.81				
1. School Administrators and Management Style	VTHS	645	3.54	903.15	48.948	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS
	AHS	993	3.83	1093.87			
	AiHHS	182	3.89	1151.66			
	SHS	252	3.81	1068.57			
	Total	2072	3.74				
2. Teacher Related Factors	VTHS	645	3.84	864.92	80.120	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS
	AHS	993	4.26	1111.43			
	AiHHS	182	4.25	1138.25			
	SHS	252	4.32	1106.93			
	Total	2072	4.14				
3. Curriculum	VTHS	645	3.45	935.21	29.576	.000*	VTHS-SHS VTHS-AHS
	AHS	993	3.68	1082.36			
	AiHHS	182	3.60	1028.42			
	SHS	252	3.76	1120.89			
	Total	2072	3.61				
4. Teaching Environment and Contribution of Parents	VTHS	645	3.39	958.60	19.000	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS
	AHS	993	3.53	1053.53			
	AiHHS	182	3.63	1111.96			
	SHS	252	3.64	1114.28			
	Total	2072	3.51				
5. Physical Qualifications	VTHS	645	3.59	805.82	152.411	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS AiHL-AHS AiHL-SHS
	AHS	993	4.13	1155.07			
	AiHHS	182	3.89	1004.95			
	SHS	252	4.19	1182.50			
	Total	2072	3.95				
6. Impact of Students' Individual Characteristics	VTHS	645	3.74	850.30	94.174	.000*	VTHS-SHS VTHS-AHS VTHS-AiHHS
	AHS	993	4.21	1127.16			
	AiHHS	182	4.16	1116.20			
	SHS	252	4.21	1098.28			
	Total	2072	4.06				

*p<.05

When Table 7 is examined, it is seen that students' perceptions of the factors affecting their academic success differ significantly according to the type of school [$\chi^2_{(3)} = 110.160$, $p < .05$]. As a result of multiple comparisons of the Mann-Whitney U Test, perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=3.96$ high level), the students attending Anatolian High School ($\bar{x}=3.92$ high level) and the students attending Anatolian Imam Hatip High School ($\bar{x}=3.88$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.78$ high level) and these differences were statistically significant. When the scores of the dimensions of the scale are examined, it is seen that the students' perceptions about the factors affecting their academic success in all sub-dimensions differ significantly according to the type of school they attend. Perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=3.83$ high level), the students attending Anatolian Imam Hatip High School ($\bar{x}=3.89$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.54$ high level) in school administrators and management style dimension [$\chi^2_{(3)} = 80.120$, $p < .05$]. Similarly, perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=4.32$ the highest level), the students attending Anatolian High School ($\bar{x}=4.26$ the highest level) and the students attending Anatolian Imam Hatip High School ($\bar{x}=4.25$ the highest level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.84$ high level) in teacher related factors dimension [$\chi^2_{(3)} = 110.160$, $p < .05$]. Perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=3.76$ high level), the students attending Anatolian High School ($\bar{x}=3.68$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.45$ high level) in curriculum dimension [$\chi^2_{(3)} = 29.576$, $p < .05$]. Perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=3.64$ high level), the students attending Anatolian High School ($\bar{x}=3.53$ high level) and the students attending Anatolian Imam Hatip High School ($\bar{x}=3.63$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.39$ medium level) in teaching environment and contribution of parents dimension [$\chi^2_{(3)} = 19.000$, $p < .05$]. Perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=4.19$ high level),

the students attending Anatolian High School ($\bar{x}=4.13$ high level) and the students attending Anatolian Imam Hatip High School ($\bar{x}=3.89$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.59$ high level); perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=4.19$ high level) and the students attending Anatolian High School ($\bar{x}=4.13$ high level) are higher than the students attending Anatolian Imam Hatip High School ($\bar{x}=3.89$ high level) in physical qualifications dimension [$\chi^2_{(3)} = 152.411, p < .05$]. Perceptions of the factors affecting the academic success of the students attending Science High School ($\bar{x}=4$ high level), the students attending Anatolian High School ($\bar{x}=4.21$ high level) and the students attending Anatolian Imam Hatip High School ($\bar{x}=4.16$ high level) are higher than the students attending Vocational Technical Anatolian High School ($\bar{x}=3.74$ high level) in impact of students' individual characteristics dimension [$\chi^2_{(3)} = 94.174, p < .05$]. Kruskal Wallis Test results of teachers' perceptions of school-related factors affecting students' academic success according to school type are presented in Table 8.

Table 8. Kruskal Wallis Test results of teachers' perceptions of school-related factors affecting students' academic success according to school type

Variables	School Type	N	\bar{X}	Rank Av.	χ^2	p	Difference
Academic Success	VTHS	147	4.20	184.87	4.835	.184	-
	AHS	147	4.24	202.58			
	AİHHS	44	4.03	163.94			
	SHS	42	4.26	195.73			
	Total	380	4.21				
1. School Administrators and Management Style	VTHS	147	4.23	171.50	10.331	.016*	VTHS-AHS
	AHS	147	4.40	209.49			
	AİHHS	44	4.33	203.82			
	SHS	42	4.23	176.61			
	Total	380	4.31				
2. Teacher Related Factors	VTHS	147	4.37	178.16	10.548	.014*	AİHS-SHS
	AHS	147	4.49	204.27			
	AİHHS	44	4.20	160.60			
	SHS	42	4.60	216.81			
	Total	380	4.42				
3. Curriculum	VTHS	147	3.76	192.33	4.525	.210	-
	AHS	147	3.74	190.61			
	AİHHS	44	3.56	163.02			
	SHS	42	3.90	212.50			
	Total	380	3.74				
4. Teaching Environment and Contribution of Parents	VTHS	147	4.07	199.32	3.631	.304	-
	AHS	147	4.01	191.35			
	AİHHS	44	3.84	164.36			
	SHS	42	4.01	184.01			
	Total	380	4.01				
5. Physical Qualifications	VTHS	147	4.34	193.83	9.480	.024*	AİHHS-VTHS AİHHS-AHS
	AHS	147	4.32	196.66			
	AİHHS	44	3.98	144.26			
	SHS	42	4.37	205.74			
	Total	380	4.29				
6. Impact of Students' Individual Characteristics	VTHS	147	4.48	185.25	3.088	.378	-
	AHS	147	4.57	201.73			
	AİHHS	44	4.32	176.99			
	SHS	42	4.56	183.71			
	Total	380	4.51				

* $p < .05$

When Table 8 is examined, it is seen that teachers' perceptions of the factors affecting students' academic success do not differ significantly according to the type of school they work in [$\chi^2_{(3)} = 4.835, p > .05$]. When the dimensions of the scale are examined, it is seen that the perceptions of the teachers regarding the school-related factors that affect the academic success of the students in the dimensions of the curriculum, teaching environment and contribution of parents, and the impact of students' individual characteristics do not differ significantly according to the type of school that the teachers work in, but in the dimensions of school administrators and management style [$\chi^2_{(3)} = 10.331, p > .05$], teacher-related factors [$\chi^2_{(3)} = 10.548, p > .05$], physical qualifications [$\chi^2_{(3)} = 9.480, p > .05$], it is seen that perceptions of teachers differ significantly according to the type of school they work in. As a result of the multiple comparisons of the Mann-Whitney U Test, the perceptions of the teachers working in Anatolian High School ($\bar{x}=4.40$, the highest level) regarding the factors affecting their academic success, are higher than those working in the Vocational Technical Anatolian High School ($\bar{x}=4.23$ highest level) in school administrators and management style dimension. The

perceptions of the teachers working in Science High School ($\bar{x}=4.60$, the highest level) regarding the factors affecting their academic success, are higher than those working in the Anatolian İmam Hatip High School ($\bar{x}=4.20$ high level) in teacher related factors dimension. The perceptions of the teachers working in Voacational Technical High School ($\bar{x}=4.34$, the highest level) regarding the factors affecting their academic success, are higher than those working in the Anatolian İmam Hatip High School ($\bar{x}=3.98$ high level) and those working in the Anatolian High School ($\bar{x}=4.32$ high level) in physical qualifications dimension. Kruskal Wallis Test results of administrators' perceptions of school-related factors affecting students' academic success according to school type are presented in Table 9.

Table 9. Kruskal Wallis Test results of administrators' perceptions of school-related factors affecting students' academic success according to school type

Variables	School Type	N	\bar{X}	Rank Av.	χ^2	p	Difference
Academic Success	VTHS	26	4.07	28.42	1.781	.619	-
	AHS	18	4.10	26.61			
	AİHHS	5	4.42	37.30			
	SHS	8	4.08	31.06			
	Total	57	4.11				
1. School Administrators and Management Style	VTHS	26	4.12	26.69	1.716	.633	-
	AHS	18	4.30	28.81			
	AİHHS	5	4.48	35.20			
	SHS	8	4.12	33.06			
	Total	57	4.21				
2. Teacher Related Factors	VTHS	26	4.25	27.67	2.038	.565	-
	AHS	18	4.37	28.33			
	AİHHS	5	4.80	38.70			
	SHS	8	4.08	28.75			
	Total	57	4.32				
4. Teaching Environment and Contribution of Parents	VTHS	26	3.96	27.94	1.893	.595	-
	AHS	18	4.02	27.53			
	AİHHS	5	4.44	38.40			
	SHS	8	3.97	29.88			
	Total	57	4.02				
6. Impact of Students' Individual Characteristics	VTHS	26	4.40	28.08	.357	.949	-
	AHS	18	4.49	28.81			
	AİHHS	5	4.55	30.70			
	SHS	8	4.47	31.38			
	Total	57	4.45				

*p<.05

When Table 9 is examined, it is seen that the perceptions of the administrators regarding the school-related factors that affect the academic success of the students do not differ significantly according to the type of school they work in [$\chi^2_{(3)} = .187$, $p > .05$]. ANOVA is applied because curriculum and physical qualifications dimensions have normal distribution. Results are presented in Table 10.

Table 10. ANOVA on academic success by school type

Academic Success	Sources of Variation	Sum of Squares	df	Mean Squares	F	p	Difference
3. Curriculum	Between Groups	55.581	3	18.527	1.156	.335	-
	Within Groups	849.262	53	16.024			
	Total	904.842	56				
5. Physical Qualifications	Between Groups	26.065	3	8.688	.459	.712	-
	Within Groups	1003.654	53	18.937			
	Total	1029.719	56				

*p<.05

According to Table 10, it is seen that the perceptions of the administrators about the school-related factors that affect the academic success of the students in the dimensions of curriculum and physical qualifications do not differ significantly according to the type of school they work in [$F_{(2,54)} = .704$, $p > .05$]. Mann-Whitney U Test results of students' own perceptions of school-related factors affecting their academic success according to the success of the school are presented in Table 11.

According to Table 11, it is seen that students' perceptions of school-related factors that affect their academic success differ significantly according to the success of the school ($U = 343333.500$, $p < .05$). It was found that the perceptions of the students who attend school with high success ($\bar{x}=3.91$ high level) about the factors affecting academic success are higher than the students who attend school with low success ($\bar{x}=3.60$ high level).

Table 11. Mann-Whitney U Test results of students' own perceptions of school-related factors affecting their academic success according to the success of the school

Variables	Success of the School	N	\bar{X}	Rank Av.	U	P
Academic Success	High	1417	3.91	1121.70	343333.500	.000*
	Low	655	3.60	852.17		
	Total	2072	3.81			
1. School Administrators and Management Style	High	1417	3.81	1074.27	410548.500	.000*
	Low	655	3.60	954.79		
	Total	2072	3.74			
2. Teacher Related Factors	High	1417	4.25	1104.78	367321.500	.000*
	Low	655	3.89	888.80		
	Total	2072	4.14			
3. Curriculum	High	1417	3.69	1089.45	389037.000	.000*
	Low	655	3.43	921.95		
	Total	2072	3.61			
4. Teaching Environment and Contribution of Parents	High	1417	3.55	1064.05	425031.000	.002*
	Low	655	3.42	976.90		
	Total	2072	3.51			
5. Physical Qualifications	High	1417	4.11	1143.61	312291.000	.000*
	Low	655	3.59	804.78		
	Total	2072	3.95			
6. Impact of Students' Individual Characteristics	High	1417	4.20	1113.11	355516.000	.000*
	Low	655	3.77	870.77		
	Total	2072	4.06			

*p<.05

When the dimensions of the scale were examined, it was found that the students' perceptions of the factors affecting their academic success differed significantly in all dimensions according to the success of the school that the students attended. When the scores related to the dimensions of the scale are examined, it can be said that the perceptions of the students who attend the school with high success (respectively \bar{x} =3.81 high level, \bar{x} =4.25 the highest level, \bar{x} =3.69 high level, \bar{x} =3.55 high level, \bar{x} =4.11 high level, \bar{x} =4.20 high level) in all dimensions about the school-related factors affecting their academic success are higher than the students who attend the school with low achievement (respectively \bar{x} =3.60 high level, \bar{x} =3.89 high level, \bar{x} =3.43 high level, \bar{x} =3.42 high level, \bar{x} =3.59 high level, \bar{x} =3.77 high level). Mann-Whitney U Test results of teachers' perceptions of school-related factors affecting students' academic success according to school success are presented in Table 12.

Table 12. Mann-Whitney U Test results of teachers' perceptions of school-related factors affecting students' academic success according to school success

Variables	Success of the School	N	\bar{X}	Rank Av.	U	P
Academic Success	High	218	4.24	199.10	15782.500	.076
	Low	162	4.16	178.92		
	Total	380	4.21			
1. School Administrators and Management Style	High	218	4.38	204.89	14522.000	.003*
	Low	162	4.22	171.14		
	Total	380	4.31			
2. Teacher Related Factors	High	218	4.49	201.59	15240.000	.018*
	Low	162	4.33	175.57		
	Total	380	4.42			
3. Curriculum	High	218	3.75	190.69	17616.500	.969
	Low	162	3.74	190.24		
	Total	380	3.75			
4. Teaching Environment and Contribution of Parents	High	218	4.01	188.95	17319.500	.748
	Low	162	4.02	192.59		
	Total	380	4.01			
5. Physical Qualifications	High	218	4.32	197.04	16233.000	.172
	Low	162	4.26	181.70		
	Total	380	4.29			
6. Impact of Students' Individual Characteristics	High	218	4.58	200.73	15427.000	.024*
	Low	162	4.40	176.73		
	Total	380	4.51			

*p<.05

According to Table 12, it is seen that teachers' perceptions of school-related factors that affect students' academic success do not differ significantly according to the success of the school they work in ($U = 15782.500$, $p > .05$). When the dimensions of the

scale were examined, it was determined that students' perceptions of the factors affecting their academic success were determined according to the success of the school they work in did not differ significantly in curriculum ($U= 17616.500$, $p> .05$), teaching environment and contribution of parents ($U= 17319.500$, $p> .05$) and physical qualifications ($U= 9466.000$, $p> .05$) dimensions, but it was found that there is a statistically significant difference in the dimensions of school administrators and management style, ($U= 14522,000$, $p< .05$) teacher-related factors ($U= 15240,000$, $p< .05$) and impact of the students' individual characteristics ($U= 15427,000$, $p< .05$). In the dimensions of school administrators and management style, teacher related factors, impact of students' individual characteristics; it is seen that the perceptions of teachers working in schools with high success (respectively $\bar{x}=4.38$ the highest level, $\bar{x}=4.49$ the highest level, $\bar{x}=4.58$ the highest level) are higher than those working in schools with low success (respectively $\bar{x}=4.22$ the highest level, $\bar{x}=4.33$ the highest level, $\bar{x}=4.40$ the highest level). Mann-Whitney U Test results of administrators' perceptions of school-related factors affecting students' academic success according to school success are presented in Table 13.

Table 13. Mann-Whitney U Test results of administrators' perceptions of school-related factors affecting students' academic success according to school success

Variables	Success of the School	N	\bar{X}	Rank Av.	U	P
Academic Success	High	30	4.14	29.07	403.000	.974
	Low	27	4.08	28.93		
	Total	57	4.11			
1. School Administrators and Management Style	High	30	4.30	31.40	333.000	.245
	Low	27	4.11	26.33		
	Total	57	4.21			
2. Teacher Related Factors	High	30	4.31	28.83	400.000	.934
	Low	27	4.32	29.19		
	Total	57	4.32			
4. Teaching Environment and Contribution of Parents	High	30	4.03	28.57	392.000	.835
	Low	27	4.02	29.48		
	Total	57	4.02			
5. Physical Qualifications	High	30	4.29	30.65	355.500	.419
	Low	27	4.13	27.17		
	Total	57	4.21			
6. Impact of Students' Individual Characteristics	High	30	4.52	30.30	366.000	.496
	Low	27	4.38	27.56		
	Total	57	4.45			

* $p<.05$

When Table 13 is examined, it is seen that the perceptions of the administrators regarding the school-related factors that affect the academic success of the students do not differ significantly according to the success of the school they work in ($U= 403.000$, $p> .05$). T-test is applied because curriculum dimension has normal distribution. Results are presented in Table 14.

Table 14. t-test on academic success according to school success

Academic Success	Success of the School	N	\bar{x}	ss	df	t	p
3. Curriculum	High	30	3.38	,98421	55	-.817	.417
	Low	27	3.60	1,03371			

* $p<.05$

According to Table 14, it is seen that the perceptions of the administrators regarding the school-related factors that affect the academic success of the students in the dimension of the curriculum do not differ significantly according to the success of the school they work in [$t_{(55)} = .907$, $p>.05$].

DISCUSSION

The way leadership is presented directly relates to an educational institution's success, which explains why all leaders at various levels struggle to determine the best way to lead their followers and their institutions (Erçetin & Bisaso, 2018). When the studies in the literature are examined, it is seen that they overlap with the results of the research. As a result of the research, it was determined that the school administrators and the management style were influential in the student's academic success. Similarly, in the study by Erçetin and Bisaso (2016), it was concluded that the leadership behaviours of school administrators affect academic success. In the study carried out by Özdemir (2016), it was concluded that the relationship between the managerial behaviours of school principals and the academic success of students was realized indirectly and at a low level through teachers.

It has been determined that gender is a variable that affects academic success according to student perceptions. However, the gender of administrators and teachers is not an influential variable in academic success. Researches support the results of the

research. In the study by Uzun (2005), in which gender variable was found to affect academic success, it was concluded that there was a significant difference in favour of girls. According to the results of the research conducted by Aslanargun, Bozkurt and Sarıoğlu (2016), to determine the relationship between the demographic variables affecting the students' academic success, it was found that gender is one of the factors affecting academic success. In the study conducted by Yörük (2007), it was determined that the students' productive work habits scores showed a significant difference in favour of male students according to gender. According to the results of the research conducted by Gök (2015) and Aydın (2010), it has been revealed that the gender variable has an impact on academic success. In addition, supporting the results, it was revealed in the study conducted by Sapp (2009) that the age variable also affects academic success. According to the research results, school type is an influential variable in students' perceptions of school-related factors that affect academic success. However, according to the administrators' views, it is not an influential variable. Supporting the results of the research, in the study conducted by Yörük (2007), it was concluded that the academic success and productive study habits scores of high school students differ significantly according to the school type (General High School and Anatolian High School).

CONCLUSION AND RECOMMENDATIONS

In this research, it was concluded that teachers think that school-related factors affect students' academic achievement more than administrators and students, so we can say that school administrators feel the responsibility of increasing academic success is less than the teachers. Teachers and administrators think that it is the individual characteristics of the students that most affect their academic success of the students. It was concluded that the students participating in the research attributed their high academic achievement to the teachers. In this context, the fact that teachers and administrators attribute the most influential factor to students, and students to teachers, suggests that all three groups may develop a behaviour of holding other groups accountable instead of self-criticizing about the problems and problems that may be experienced in academic success. It is concluded that female students think that school-related factors affect students' academic success more than male students. It can be said that male students may be more influenced by other factors such as family, environment, and friendship relations rather than school-related factors. According to student perceptions, it was concluded that school type is one of the factors affecting academic success. It was concluded that students attending Science High School, Anatolian High School and Anatolian Imam Hatip High School think that the factors related to school have more effect on their academic success than those attending Vocational Technical Anatolian High School. It can be said that this situation may be due to the thoughts of the students attending the Vocational Technical Anatolian High School rather than the goals of academic success to develop their profession. According to the perceptions of teachers and administrators, it was concluded that school type is not one of the factors affecting academic success. It has been concluded that the teachers working in Anatolian High School think that the school administrators and management style, which is one of the school-related factors, have a more significant effect on the student's academic success than the teachers working in the Vocational Technical Anatolian High School. It can be said that the effect of support and training courses, university preparation courses and trial exams planned by the administration in Anatolian High Schools on students' academic success may be effective in teachers' perceptions in this direction. It was concluded that the teachers working in the Science High School thought that the effects of teacher-related factors on the student's academic success were more than those working in the Anatolian Imam Hatip High School. It can be said that the preparatory courses for higher education given by the teachers in the school to the students attending the Science High School, the studies conducted under the guidance of the teachers, and the question-solving hours can be effective in the perceptions of the teachers. It was concluded that the teachers working in the Vocational Technical Anatolian High School thought that the physical variables, one of the school-related factors, had a more significant effect on the student's academic success than the teachers working at the Anatolian Imam Hatip High School and Anatolian High School. It can be said that teachers working in Vocational Technical Anatolian High School may experience the effects of physical variables on students more in vocational courses and workshops.

According to the research results, the school's success is an influential variable in the students' perceptions of the school-related factors affecting academic success. However, according to the administrators' views, it is not an influential variable. It has been concluded that students who attend school with high success think that school-related factors have more effect on their academic success than those with low success. It can be said that the competition and competition environment, motivation, goal setting and goal-oriented studies among students attending school with high success may affect their perceptions about academic success. It has been concluded that the teachers working in the schools with high success think that the effects of the school-related factors such as school administrators and management style, teacher-related factors, and the individual characteristics of the students on the academic success of the students are more than the teachers working in the schools with low success. It can be said that since the teachers working in schools with high academic success are more motivated to succeed because the school aims to achieve academic success, teachers' perceptions differ in this direction.

As a result of the research, it was found that the administrators' perceptions about the school-related factors that affect the student's academic success did not differ significantly according to the type of school they work in and the success of the school they work in. In this context, To adapt the managerial behaviours of administrators to the era and reflect them to practice in an educational environment, school administrators should provide training to gain skills. The academic success of the student should be evaluated at the level of the development of the skill of transferring knowledge to live, rather than the increase in the

level of knowledge, and the education programs should be updated with the acquisitions that enable students to develop skills suitable for the century in which they live.

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Statements of publication ethics

We hereby declare that the study has not unethical issues and that research and publication ethics have been observed carefully.

Ethics Committee Approval Information

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