

Full Length Research Paper

The variables affecting the success of students

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The aim of this study is to determine the variables affecting the success of students. This research, which was conducted through the relational screening model, has a sampling of students who were selected from a middle city in Turkey. The schools are classified into three as low, medium and high. A total of 3491 students are selected by using the random stratified sampling model. The data were gathered by a survey which included 20 items developed by researchers. In this study, as a result of separate analysis on grade 7 and 8 students, similar conclusions are made. According to the findings of the research, the success of students who received pre-school education is higher than those who did not. Also, students who went to private establishments longer are more successful than the students who went for a short time. Attending extra school courses has similar results as to going to the private school establishments. When shelter conditions are considered, it is found that students who live with their parents are more successful than those students who are boarding or living in dormitories. It is understood that the variables that affect 7th and 8th grade students' success most are "average amount of daily problem solved" and "the time spent in private establishments or school courses".

Key words: Academic achievement, elementary school, student.

INTRODUCTION

The life of students in the future is mostly influenced by the quality of education in their former schools (Yıldırım, 2006). According to the PISA 2003 (Programme for International Student Assessment) findings, Turkey has the most significant gap between the qualities of schools among the participated countries (MEB, 2005). As a result of this gap, students have to do specific exams and obtain a certain level of success in order to have a chance to choose between secondary schools which can provide a more advantageous education (Gelbal, 2008). It is the Student Placement Test [SBS] (Student Placement Test is one of the elements of the system of transition to secondary education) grades which are main factor for primary school students to get into one of the secondary schools. Students' high grades in SBS are mostly dependent on their school learning in terms of five disciplines (Turkish, Mathematics, Science and Technology, Social Sciences and English).

The Turkish education system has an academic

success-centered structure due to exams. From the beginning of the school, students are expected to be successful by their whole family, teachers and environment (Şama and Tarım, 2007). Therefore, the educational success of student gains a prominent importance for student himself/herself, his/her family and the society where the student is living in (Yıldırım, 2000).

In the last few years, Turkish student's success in both national exams and international assessments (Trends in International Mathematics and Science Study [TIMSS], PISA) has been very low. It is thought that if the factors that affect the success are determined, the reasons of failure can be controlled (Özgül, 1974). Secondary school is a transition period to high schools, and this transition is prominent for students as it impacts their lives in a variety of ways. The success of students in secondary schools can provide them the opportunity to study in a better high school and in a university where they can be educated for the profession they choose.

Students who were studied from the same school, for the same lessons and with the same methods showed difference in academic success in the exams and this situation triggered the researchers to investigate the factors that affect academic success. Darling-Hammond (1999) states that different factors contribute to the academic success of students and these factors have either low or high effect.

It is claimed that academic success is influenced by many factors such as ability, essential character, personal and family features, the qualifications of the school where the student has been graduated or is still studying (Özgüven, 1974), the habits of studying (Can, 1992), motivation (Bruinsma and Jansen, 2005; Kuyper et al., 2000; Wolters, 1999), anxiety, success incentive (Özgüven, 2002), specific studying hours, the amount of busy and leisure time except from the lessons (Bruinsma and Jansen, 2005; Savaş et al., 2010; Ulular, 1997), the attitude of mother and father (Ulular, 1997).

The family dynamic and its features have an important influence on student's success (Başaran, 1996; Sönmez, 1986). The socio-economic status of family directly affects the opportunities that they can provide for their children, in particular, access to education. Existence of a personal place of the child for studying (room, table) can have a positive impact on student's success. Workrooms are places where student can physically be comfortable, required equipment and books are available in regular so that can increase the efficiency of student's work (Harvey, 2003). According to Çelenk (2003) arrangement of students' studying opportunities at home is an important factor in terms of student's success. Also, according to Gelbal (2008), an increase in students' opportunities at their homes (either computer and internet access is available or not, either a table for studying and a specific room is available or not) has positively affected their success in Turkish tests. It is found in the research done by Ulular (1997) that the success of secondary school students differs according to their working sphere. Another important variable that affects academic success is pre-school education. In the past, studies have shown that school maturity (Dinç, 2002; Yeşil, 2008), the level of coming to school more equipped (Pehlivan, 2006), the ability in preparation for reading and writing (Erkan and Kırca, 2010) and the level of mathematical abilities (Unutkan, 2007) of students who obtained pre-school education are higher than their peers who did not obtain a pre-school education. According to findings of PISA 2009, even if the socio-economic sub-structure is considered, students who received pre-school education are relatively more successful than the ones who did not get that education in most of the OECD countries.

As a result of the shortcomings in education opportunities, and with the arrangements that determine the transition of students to a higher educational institution according to the exam results, the private educational institutions demonstrated prominent developments.

According to the research of Savaş et al. (2010), the mathematical success of students who attended a private educational institution is significantly higher than the ones who did not attend.

As a conclusion, there are various factors that have an impact on student's academic success. In this study, it is aimed to assess the relationship between the student's academic success and variables that are expected to have an effect on it. However, it is hard to list all factors influencing the success in one study. Therefore, in the study, it is researched that whether the factors that are expected to affect student's success (pre-school education, workroom, sheltering conditions, daily study, watching TV, time of playing game, attendance to a private educational institution or extra school courses, the daily number of problems that are solved and an average of monthly preparation tests) are valid for these group of students and level of effect of these factors on success. In this general framework, the answers to the following questions are attempted.

Sub-questions

1. What is the distribution of answers of students who entered the SBS exam in this survey?
2. Is there a statistically significant difference between 7th and 8th grade students' SBS grades according to "Getting a pre-school education", "Having a specific studying place" "Length of time of attending private educational institution" "Length of time of attending extra school courses" "Sheltering conditions" "Length of time of daily studying"
3. What are the variables that affect 7th and 8th grade students' SBS success?

The findings of this research will provide an assessment of the factors that affect success and it is important in order to determine the components of failure, to avoid those components, to provide solutions to the problems, to contribute to increase in educational quality, and to shed light on educational attempts of this sort.

METHODOLOGY

The aim of this study is to determine the factors that affect the success of students. Towards this aim, the relational survey method was applied. In accordance with this model, the relationship and the level of relationship between variables that can affect the academic success are found out and methods that can made meaningful conclusions from descriptive values are applied (Fraenkel and Wallen, 2006). The quantitative data were gathered through the survey applied to the students and also the SBS grades of students are accessed. The SBS grades of students are accepted as the academic success variable.

Research population and sample

Research population consisted of a total of 10375 students who

Table 1. Population, number of samples and representativeness.

Grade	No of students		Representativeness (%)	No of secondary schools		Representativeness (%)
	Population	Sample		Population	Sample	
7	5237	1666	32	103	43	42
8	5138	1825	36			
Total	10375	3491	34			

study as 7th and 8th grade in a medium size city in 2010-2011 education semesters. The sample of schools is determined in accordance with the advice of major of the city, manager of national education institution and an education inspector. In order to provide the diversity and to increase the representativeness of the study, while choosing the schools, the success level of students and their socio-economic sufficiency are considered. During the sampling, getting into motion with the understanding of random stratification sampling model, the schools are classified into three as low, medium and high and the ratio of 1/3 is used (Fraenkel and Wallen, 2006). In schools that took place in the sample, the classes are randomly chosen and special attention is paid to 7th and 8th grade classes at the same number with the help of school administration.

According to Table 1, 34% representatives of the population and 42% representatives in terms of secondary schools have been reached. In the study where the population is 10375 and the number of sample is 3491, the error rate is estimated as 1.78% in the 99% confidence interval. If the students who did not attend the SBS exam and the ones who did not have a SBS grade are considered within the population, it can be seen that the study has a high degree of representativeness. Thus, it can be claimed that the findings of the study can be generalized.

Data gathering instrument

In order to determine students' studying habits for SBS preparation, a 20-item survey developed by researchers has been applied. For the preparation of the survey, the items are written through meetings with 9th grade students who were successful in SBS exam and they were re-considered according to the advice of the specialized teachers working in secondary schools. The draft is applied in 7th and 8th grade students in a different city and has changed according to comments of the students. It can be claimed that the survey has reliability after these efforts.

Data analysis techniques

The findings presented in the study are gathered from the students who studied in 7th and 8th grade in 2010-2011 education semesters. In the analysis of students' thoughts gathered through survey as well as the descriptive statistics such as percentage, frequency, arithmetic average, standard deviation; independent groups t tests, anaova, scheffe tests and gradual and multiple regression test are used. The Anova and t-test were used to compare group differences. The homogeneity of variation is controlled with the help of Levene test statistics. Finally, regression analyses were used to explore the relationships among multiple predictors as they affect the success of the students. Multiple regression offers a fuller explanation of the dependent variables and allows the effect of a particular independent variable to be examined without distorting influences from other independent variables (Hair et al., 2006). In this study, the independent variables were: daily amount of problem solved, studying in a private

institution, attending school courses, monthly preparation test, time of daily study, having a studying room, average time of playing game, daily time of watching TV, getting pre-school education; dependent variable was students' SBS points. Multiple regression makes a number of assumptions about the data and therefore these assumptions were checked prior to the analyses to make sure they were not violated (Pallant, 2007). The assumptions included the following: sample size, multicollinearity, singularity, normality, outliers, and linearity.

FINDINGS

In this chapter, findings concerning the sub-questions are presented as in the order of sub-questions.

The frequency of students' answers

Findings about the frequency of students' answers in the first sub-question are presented in Table 2.

When Table 2 is considered, it is seen that gender frequency of students is balanced. While a total of 1766 girl students constitute 50.6% of whole participants, a total of 1725 boy students constitute 49.4% of whole participants. When the frequency in terms of classes is considered; it is seen that 7th grades constitute 47.7% of 1666 students; 8th grades constitute 52.3% of 1825 students.

When the data in Table 2 are considered, while the overall ratio of getting pre-school education is 32%, it is 35% in the 7th grades and 30% in the 8th grades. The reason for a high degree of getting pre-school education for 7th grades can be an increase in pre-school classes and a change in parents' attitudes towards it.

Approximately 77% of the students stated that they have their own studying place. At the class level, it is understood that the ratio of having a studying place is similar to general average (7th grade, 77.4% and 8th grade, 76.5%)

According to Table 2, more than half of the students stated that they have never studied in a private institution. Also, the ratio of 22% that represents the students who have studied in private institutions for one year proves that limited attention is paid to access to private institutions. For the 7th and 8th grades students the ratio of not studying in private institution is 61.1% for 7th grades and 51.9% for 8th grades.

When Table 2 is analyzed it is understood that the ratio

Table 2. Descriptive statistics about the frequency of students.

		7th Grade		8. Grade		Total	
		f	%	f	%	f	%
Gender	Girl	833	50	933	51.1	1766	50.6
	Boy	833	50	892	48.9	1725	49.4
Pre-school education	Got	582	34.9	550	30.1	1132	32
	Did not get	1084	65.1	1275	69.9	2359	68
Studying place	Have got	1289	77.4	1397	76.5	2686	77
	Have not got	377	22.6	428	23.5	805	23
Time of attending the private institution	No study	1019	61.16	947	51.89	1966	56
	1 year	381	22.87	384	21.04	765	22
	2-year	224	13.45	260	14.25	484	14
	3-year	42	2.52	189	10.36	231	6
	4-year	0	0	45	2.47	45	1
Time of attending the school course	No attendance	493	29.59	479	26.25	972	28
	1 year	698	41.90	757	41.48	1455	41
	2-year	308	18.49	304	16.66	612	18
	3-year	167	9.84	178	9.75	342	10
	4-year	0	0	0	5.86	110	3
Time of daily studying	No study at all	25	1.50	37	2.03	62	2
	1 h	475	28.51	524	28.71	999	29
	2-h	805	48.32	833	45.64	1638	47
	3-h+	361	21.67	431	23.62	792	22
Sheltering Place	Own House	1621	97.30	1751	95.95	3373	96.6
	State Dormitory	32	1.92	49	2.69	81	2.3
	Private Dormitory	13	0.78	24	1.36	37	1
	Total	1666	47.7	1825	52.3	3491	100

of attending school courses is higher than the ratio of attending private institutions courses. While the ratio of students who have never attended private institution is 56%, the ratio of students who have never attended school courses is 28%; and this difference is the proof of the higher attention paid to school courses. This situation can be rooted in accessibility of school courses and its appropriate prices.

Overall, most students stated that they study for 2 h every day (47%). As it is foreseen, daily studying hours are higher in 8th grade. The most considerable difference from the class level is observed in the ones who study more than two or three hours.

According to the data in Table 2, it is seen that almost all of the students live with their parents (96.6%). Just a minority of students stated that they live in state dormitories (2.6%). Therefore, it can be accepted that students do not have shelter problems during the education process.

When Table 3 is examined it is understood that 7th grade students who still continue the education process have higher average of SBS points ($\bar{x}=313,576$) than 8th grades ($\bar{x}=291,375$), at the 6th grade level. It is seen that the number of monthly preparation tests ranged between 1 and 2. It can be foreseen an increase in this number when the time for examination is passing. It is also seen that daily time paid for both playing game and watching TV is between 3 and 4 h.

In the following sub-questions of the study, 7th and 8th grades are compared separately. When the SBS points of 8th grade students are estimated, 25% of their 6th grade points and 35% of their 7th grade points are gathered and this point is used as an exam result.

Pre-school education

The findings of independent groups' t tests done in order

Table 3. The descriptive statistics about students' SBS points, daily average of problem solved, watching TV, playing game and monthly preparation tests.

	No of students	Minimum	Maximum	Average	Standard deviation
2009 SBS 6 Points	1824	100,000	484,765	291,375	63,739
2010 SBS 7 Points	1824	125,690	494,524	289,319	82,251
2010 SBS 6 Points	1667	100,000	500,000	313,576	74,817
Daily average number of problems solved	3491	0	320	47,633	46,744
Number of monthly preparation test solved	3491	0	10	1,183	1,438
Daily Average time of Watching TV	3491	0	10	2,290	1,300
Daily Average Time of Playing Game	3491	0	7	1,254	1,041

Table 4. Comparison of SBS grades in terms of the situation of pre-school education.

Grade	Pre-school education (Yes/No)	N	\bar{X}	Ss	sd	t	p
8	E	550	190,448	46,729	1822	10,226	0,000
	H	1274	167,050	40,150			
7	E	582	330,276	78,688	1664	6,765	0,000
	H	1084	304,603	71,125			

Table 5. Comparison of SBS grades according to having a specific studying place.

Grade	Studying place	N	\bar{X}	Ss	sd	t	p
8	Have	1396	177,181	43,768	1822	5,485	0,000
	Do not have	428	164,078	41,421			
7	Have	1289	321,769	74,581	1664	8,440	0,000
	Do not Have	377	285,542	68,778			

to find out if students' SBS grades differ according to pre-school education are presented in Table 4.

It is understood that the SBS grades of students who obtained pre-school education are higher (For 8th grade: $\bar{x}=190,448$ and for 7th grade: $\bar{x}=330,276$) than the ones who did not get pre-school education (For 8th grade: $\bar{x}=167,050$ and for 7th grade: $\bar{x}=304,603$). Also, this differentiation on behalf of the ones who got pre-school education is considered in terms of 8th grade; it is understood that it is also statistically meaningful ($T(1822)=10,226$ $p<0,001$). As well as in 8th grade and 7th grades, the difference between the average of grades of the ones who got pre-school education and the ones who did not is also statistically meaningful ($T(1664)=6,765$ $p<0,001$).

Studying place

The findings of independence groups t tests done in

order to find out if students' SBS grades differ according to their studying place are presented in Table 5.

As it is seen in Table 5, it is found that for 8th grade students, there is statistically significant difference between success of students who have a studying place and the ones who do not have ($T(1822)=5,485$, $p<0,001$). In other words, generally the students who have a specific studying place ($\bar{x}=177,181$) are more successful in SBS examination than those who do not have ($\bar{x}=164,078$). Similarly, it is seen that there is a statistically significant difference between the SBS success of 7th grade students who have specific studying place ($\bar{x}=321,769$) and the ones ($\bar{x}=285,542$) who do not have ($T(1664)=8,440$, $p<0,001$).

Time of attending private institution

The results of Anova and Scheffe tests done in order to determine the effect of the time of attending t private

Table 6. Comparison of SBS points in terms of studying in private institution.

Grade	Time of studying in a private institution	N	\bar{X}	Ss	F	P	*Significant difference
8	Not study at all	946	157,487	35,362	163,951	0,000	4>G,1,2 3>G1,2 2>G1 1>G
	1-year	384	172,984	38,294			
	2-year	260	191,777	40,391			
	3-year	189	221,625	39,282			
	4-year	45	231,351	44,727			
7	Not study at all	1020	291,849	67,308	134,213	0,000	3>G1 2>G1 1>G
	1 year	381	322,898	67,891			
	2-year	224	382,624	65,741			
	3-year	42	388,411	65,552			

Table 7. Comparison of SBS points according to time of attending to school course.

Grade	Time of attending school course	N	\bar{X}	Ss	F	P	*Significant difference
8	Did not attend	478	169,260	46,065	4,360	0,002	4>G 3>G
	1 year	757	173,325	42,947			
	2-year	304	175,856	40,860			
	3-year	178	181,453	42,266			
	4-year	107	184,079	43,396			
7	Did not attend	493	304,742	79,106	10,647	0,000	3>G12 2>G1
	1 year	698	308,297	75,238			
	2-year	308	324,286	66,687			
	3-year	167	342,711	64,956			

institution on students' SBS points are presented in Table 6.

When Table 6 is examined, there is a significant statistical difference between the average SBS points of students in terms of different periods of time of attending private institution (For 8th grades $F(4,1820)= 163.951$, $p < 0,05$ and for 7th grades $F(3,1662)= 134.213$, $p < .05$). In other words, the time of attending private institution has a significant impact on SBS points. For 8th grade students, when the time of attending private institution increases, the average SBS points of students increase as well. It is understood that the points of students who attend private institution for 4 years have a higher average than the ones who did not study or studied just for 1, 2 or 3 years and also it is seen that these differences are meaningful. The findings from the 7th grade students are similar to that of 8th grades.

Time of Attending School Course

In order to understand if there is a differentiation between SBS points of 7th and 8th grade students according to

the time of attending the school courses, analysis of Anova and Scheffe is done and the results are presented in Table 7.

When Table 7 is considered, there is a significant statistical difference between the average SBS points of students who attend school courses for different period of time (For 8th grades $F(4,1820)= 4.360$, $p < .05$ and for 7th grades $F(4,1661)= 10.647$, $p < .05$). In other words, time of attending school courses has a significant effect on SBS points.

Shelter

Anova test is done in order to determine if the shelter of students creates difference in SBS points and the results are presented in Table 8.

When Table 8 is considered, there is a statistically significant difference between students' average SBS points according to their different sheltering conditions (For 8th grades $F(3,1821)= 4.556$, $p < 0,05$ and for 7th grades $F(3,1662)= 5.388$, $p < .05$). In other words, the sheltering conditions have a significant effect on students'

Table 8. Comparison of SBS points according to sheltering condition.

Grade	Sheltering condition	N	\bar{X}	Ss	F	P	Significant difference
8th grade	Own House	1751	174,799	43,583	4,556	0,003	Own house > state dormitory
	State Dormitory	49	151,828	39,698			
	Private Dormitory	24	169,364	33,950			
7th grade	Own House	1621	314,639	74,664	5,388	0,001	Own house > state dormitory
	State Dormitory	32	261,243	65,666			
	Private Dormitory	13	310,454	73,687			

Table 9. Comparison of SBS points according to time of daily studying.

Grade	Time of daily studying	N	\bar{X}	Ss	F	P	Significant difference
8	No study	37	154,163	41,878	68,753	0,000	3>Ç12 2>Ç1
	1 h	524	158,126	35,839			
	2 h	833	173,806	42,453			
	3 h and more	430	195,873	45,149			
7	No study	25	271,218	62,836	37,996	0,000	3>Ç12 2>Ç1
	1 h	475	289,707	70,575			
	2 h	805	316,570	73,118			
	3 h and more	361	341,219	74,031			

SBS points. When the average SBS points of students are examined, it is seen that the most successful ones are living in their own houses and, second level is living in dormitories and the third and the last level is living in state dormitories. Living in their own houses positively affects the 7th and 8th students' SBS points. However, living in state dormitories negatively affects the SBS points of students.

Daily studying time

The results of Anova and Scheffe tests asking the question of "Is there a significant difference between students' SBS points according to the time of students' daily studying and the results are presented in Table 9.

When Table 9 is considered, it is seen that time of daily studying creates a significant difference between students' average SBS points (For 8th grades $F(3,1821)=68.753$, $p < .05$ and for 7th grades $F(3,1662)=37.996$, $p < .05$). In other words, daily time of studying has a prominent impact on students' SBS points.

Variables that affect students' success in SBS (Placement Exam)

Towards this sub-question, in order to determine the

variables that affect students' SBS points, first a gradual regression tests are done to find the independent variables. After gradual regression tests, a multiple regression analysis is done. Before the gradual regression, the 11 independent variables are separately analyzed for 7th and 8th grades. As a result of gradual regression, 7 independent variables that affect students' SBS points for 7th grades and 8 independent variables for 8th grades are determined. Before the multiple regression was carried out, the assumptions on multiple regression were checked. According to Stevens (1992) and Tabachnick and Fidell, (2007), the sample size requirement was not violated in this study. The bivariate correlation results revealed no multicollinearity problems since the bivariate correlation between any two independent variable was less than .7 (Pallant, 2007, p.155). The normality problem was eliminated by removing all outliers. After removing the outliers and making sure the assumptions of multiple regression were met, multiple regression analysis was carried out on the resulting sample containing 1825 participants for 7th grade and 1666 participants for 8th grade.

In 8th grades, daily problem solving, attending private institution, attending school courses, monthly preparation test, time of daily studying, average time of playing game and getting pre-school education are determined as the variables affecting SBS points. For 7th grades; daily

Table 10. Results of multi-unit regression tests towards 8th grades.

Variable	B	Standard error	Beta	T	P	Dual correlation	Partial correlation
Constant	137,94	2,98	-	46,27	0,00	-	-
Daily SBS Problem	0,30	0,02	0,33	15,01	0,00	0,57	0,33
Studying in Private Institution	12,27	0,79	0,32	15,41	0,00	0,51	0,34
Attending to School Course	4,59	0,69	0,12	6,66	0,00	0,10	0,15
Monthly Preparation Test	3,14	0,63	0,10	5,01	0,00	0,40	0,12
Daily Studying	4,34	1,06	0,08	4,09	0,00	0,31	0,10
Average Time of Playing Game	-2,88	0,73	-0,07	-3,98	0,00	-0,21	-0,09
Pre-School Education	4,65	1,76	0,05	2,64	0,01	0,25	0,06

R=0.676 R² =0.457 F(7-1816)=218.051 P=0.00.

Table 11. Results of multiunit regression analysis done for 7th grades' SBS points.

Variable	B	Standard error	Beta	T	P	Dual correlation	Partial correlation
Constant	244.94	5.90	-	41.50	0.00		
SBS Daily Problem	0.58	0.04	0.35	14.91	0.00	0.54	0.34
Studying in Private Institution	25.37	1.95	0.28	13.04	0.00	0.43	0.31
Attending to School Course	9.90	1.58	0.12	6.28	0.00	0.15	0.15
Monthly Preparation Test	6.25	1.14	0.12	5.51	0.00	0.40	0.13
Daily Studying	5.18	2.08	0.05	2.49	0.01	0.25	0.06
Workroom/Studying Place	-9.74	3.51	-0.05	-2.78	0.01	-0.20	-0.07
Average time of Playing Game	-3.79	1.54	-0.05	-2.46	0.02	-0.17	-0.06
Time of watching TV	2.40	1.19	0.04	2.02	0.04	-0.04	0.05

R=0,64 R²=0,41 F(8-1657)=141,07 P=0,000.

amount of problem solved, attending private institution, attending school courses, monthly preparation test, time of daily study, having a studying room, average time of playing game, daily time of watching TV are understood as the variables affecting students' SBS points. The results of multi-unit regression test considering the 8th grades are presented in Table 10.

When Table 10 is considered it is understood that the most essential variables that affect SBS points of students are daily amount of problem solved, the time of attending private institution or school course. There is a positive and medium level relationship between daily amount of SBS problem solving and SBS points ($r=0.57$), and also there is a positive and medium level relationship between attending private institution and SBS points ($r=0.51$). Since there is a negative correlation between daily average time of playing game and getting pre-school education level, it can be claimed that if the time of playing game increases and if students do not get pre-school education, the SBS points will decrease. A total of seven variables above explain approximately 46% of the change in SBS points. In other words, almost half of the success in 8th grades is due to these seven variables. In 8th grades, there is a medium level relationship between these seven variables and the SBS points of these classes ($r=0,676$). The SBS points will increase if these features are developed or increased.

The results of multiunit regression test done for 7th grades are represented in Table 11.

When Table 11 is considered, it is understood that the most important variables that affect 7th grades' SBS points are daily problem solving, the time of attending private institution or school course similar to the 8th grades. There is a positive and medium level relationship between daily problem solving for SBS and SBS points ($r=0,54$), and also there is a positive medium level relationship between attending private institution and SBS points ($r=0,43$). There is a negative correlation between having a studying room, daily average time of playing game and daily average time of watching TV and SBS points. However this correlation is mostly low. These eight variables listed above explain approximately 41% of the total change in SBS points. In other words, there is a medium level of relationship between a total of eight variables and 7th grade students' SBS grades ($r=0,64$). It can be said that when these eight variables are developed, 7th grade students' performance will be better in the next two years.

CONCLUSION AND ARGUMENTS

According to the results of the study, the success of the students in SBS is influenced by many factors. According

to the findings of PISA 2009, an average of 72% of students from OECD countries in general stated that they got pre-school education more than one year. This ratio for Turkey is under 30%. When the effect of pre-school education on academic success is considered, Turkish student's low success in international examinations becomes clear. The ratio of students who get pre-school education in this study is similar to the ratio of Turkey in PISA 2009. This similarity is seen as a signifier of study's representativeness of the population. The first question of the research if the students' SBS success is changing when they get pre-school education or not. Under the light of the findings, it is found that 7th and 8th grade students who got pre-school education are more successful than the ones who did not get. The findings considering these sub-questions are parallel to the conclusions of many studies done before (Dinç, 2002; Pehlivan, 2006; Unutkan, 2007; Yeşil, 2008). Informative campaigns that highlight the importance of early childhood education and an increase in the parents' desire to begin their children school earlier can raise the future success of students. Generalizing the access to pre-school education without a decrease in quality will positively affect the total success.

In the other sub-question, the change in students' SBS success according to if they have a working place or not is investigated. As a result of the research, it is determined that both 7th and 8th grade students who have a working place are generally more successful than the rest of the students. In the related literature, there are studies that reached the same conclusion (Çelenk, 2003; Gelbal, 2008; Harvey, 2003; Ulular, 1997). Also, when the possible advantages of having a specific working place are considered, the students who have their own specific working place are expected to be more successful. Therefore, it can be evaluated that preparing a suitable place for studying for the student at home can be helpful for their educational success. Teachers and administrators can demand support from the parents in order to provide places for their children appropriate for studying in the general or special meeting arranged at the school. The places provided by the parents will increase the motivation of the students. Also, a suitable working place will contribute to the concentration that the student needs to study. When the conditions in the country are considered, it is known that although some houses have a specific working place, in some of them the working place is created in the commonly used rooms. In the situations like the latter, in order to increase the students' academic success, the furniture must be arranged according to the choices of the student in a way that is available to study.

In the sub-question in which a comparison between the SBS grades of students' according to whether they attending private educational institutions or not, it is found that students who attended private institution for a longer time are more successful than the ones who studied for a

short time. In other words, the longer student attended private educational institution, the higher their SBS grades. Savaş et al. (2010) reached similar conclusions in their studies. There can be an increase in 7th grade students' SBS grades if they attend private educational institution this year and the following year. Students who are successful at school but cannot attend private institution due to economic reasons can be supported through private institutions' quota for successful students. However, the education system of these private institutions must be checked, the structure of schools must be developed in a way that they will not be dependent on private institutions and it must not be forgotten that the basic education institutions for students are schools.

The SBS success of students who studied in extra school courses for long time and for relatively short time has been compared. As a result of these comparisons, it has been found that students who studied in extra school courses for longer time are more successful. Time of attending school courses has concluded in a similar way of attending private education institution. If the school courses are developed, results similar to the students who attend private education institutions can be reached. For 8th grade students it can be said that the longer student studies attend the school courses, the higher their SBS grades are. However, this increase is not as effective as attending private institution. Since the private institutions are more professional and the school courses are generally chosen by students from countryside, the success of school courses can be lower than the success of private institutions. In order to promote the success of the school, the school administration must arrange regular school courses and support students' attendance for free.

In the research, when the effect of student's living place on success in the school is investigated, it is found that students who live with their parents are more successful than the ones who live as boarding student or in a dormitory. As a result of the comparison, the success in SBS of students who live in their own house is higher than the ones who live in state dormitories.

When the studying habits and academic success are compared, it is seen that the studying habits of students has positively affected the academic success. It is foreseen that students who pay more time on studying are more successful comparing to the other students (Can, 1992). In the following sub-question of the study, if there is an impact of students' daily studying hours on his/her SBS success is researched. As a result of statistical analysis, it is found that in 7th and 8th grade students, when the studying time is increased, the SBS grades increase as well. It can be beneficial to increase the studying hours of students and promote their studying habits.

In the last sub-question of the study, the variables that affect and determine the SBS success of students are found out. As a result of the analysis done about this sub-

question it is seen that the most essential factors that affect students' SBS success are average of the number of daily question solved and the time of attending private institution or school course. The variables that are common in both grades are monthly preparation tests, time of daily studying and average time of playing game. As a difference between the grades, while at 8th grade pre-school education is effective on grades in SBS; at 7th grade having a studying place and the daily time of watching TV are more important variables. It is known that students who attend private institutions regularly attend preparation tests. If the high number of students who could not afford to attend private institution, it can be beneficial for students' success to do regular preparation tests in schools. Also, it is found that daily studying has an impact on academic success. Practical activities in order to bring in effective studying habits to students must be arranged in the schools. The watching TV habits of the families must be reconsidered through meetings with parents and students and the time of watching TV must be limited. Even if there is a good intention, not limiting the over-use of technological devices such as computer, TV games become an addiction for students and this affects students' success negatively. Therefore, it is important to arrange students' time for playing games in accordance with their time for studying lessons.

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