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The Relationship between Students' Socioeconomic Status and Their Turkish Achievements

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Abstract

The relationship between socio-economic status (SES) and student achievement is well documented and indicates that students from more advantaged backgrounds perform better at school. Numerous international and national studies have reported a significant association between students' socioeconomic status and their achievement at school. This study aims to examine how the students' Turkish achievement is associated with their own socioeconomic status. The study is a descriptive survey. Data were collected via an assessment test conducted by Altındağ Counseling and Research Center (ACRS) and the questionnaire the students answered after the test. The aim of the assessment test is to evaluate the students' performance and their literacy skills in Turkish Language Class. The assessment instruments were developed by ACRS. The target population of the study consists of 4th, 5th, 6th, 7th and 8th grades at primary schools around Altındağ district in Ankara. 23036 students participated in the survey. The findings of the study are as follow: the association between students' socio-economic status and the performance in the Turkish achievement test is statistically significant and positive (r=.20 p=.000). The association is significant (r=.13) at 4th grade and (r=.26) at 8th grade. Education level of the father is closely associated with the performance. Education level of mother is the second one that is closely associated with the performance. The association between after school activities (tutoring and courses) and the performance is weak. It was found a consistent negative relationship between getting help in outside of class and Turkish achievement in grade 4 and 5. However, it also found that an inconsistent negative relationship in grade 6 and a consistent positive relationship in grade 7 and 8.
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1. Introduction

Primary goal of the documents which are accepted by international communities and with the leading role of various universal organizations such as United States, UNESCO, UNICEF, UNDP and World Bank is enabling all the citizens to have access for education in the basic level. Furthermore, especially with the application of Education for All (EFA) declaration, whether people are really educated by presented education opportunities or not, in other words whether they can integrate useful information, judgment ability, capabilities and values or not. This situation

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brings forward focusing characteristic of education with accessing education and some variables related to learning achievements.

First analysis to annotate student achievement related to in and out of school sources began with the report which was published by Coleman in 1966 (Hanushek, 2007). Carried on his work in USA, Coleman set he was the most important one to foresee out-of-school data which he had from 3.000 different schools and 600.000 students. Besides, among the out-of-school variables, he considered as the best to foresee success of socio-economic status of the family (Tural, 2002). As most research show us, socio-economic origin is especially effective on student success. Hanushek (2007, s.3) expands these features to include socio-demographic statuses such as parents' education level, income and size. But, at this point, the problem is how socio-economic level is efficient on students' success.

According to PISA 2003 results, it is shown the wide difference between the low and high socio-economic level students' test results (%21,7 and %57,6). (Hanushek and Woessmann, 2010). Another result of PISA 2003 shows that between the students' who are studying in mostly advantageous and less advantageous schools maths results are very high in Austria, Belgium, Czech Republic, Germany, Hungary, Japan, Korea, Netherlands, Slovakian Republic, Turkey, Hong Kong, China and Lichtenstein. (EARGED, 2005). Similarly, PISA 2009 in consideration of studying deeply and various materials, results show that, difference between socio-economically most advantaged and low advantaged students is more than %15 (EARGED, 2010). In another research related to this subject, according to SACMEQ II exam results which take place in South and East African countries, 6th grade students' maths results differ by Socio-economic status. (UNESCO, 2006). McCoy and Leah (2005) researched 8th grade students' algebra result in some variables and they show that students' performances in algebra vary by ethnic groups, socio-economic situations and attitudes. Even though many poor students score below average on assessment tests, instructional techniques and strategies implemented at the classroom, school, district, and government levels can help close the achievement gap by providing students with necessary assistance in order to achieve high performance in academics (Yılmaz Fındık, 2012).

After shortly summarizing labours in this subject, when we consider Turkey's situation, with national and universal works, the local works are also needed to produce methods which can lower the distinctiveness in students' performances related to Socio-economic status. It can vary which points have problem by locational, local features and even by urban and suburban locations. It is important to consider these differences for lowering the application problems in the use of mechanisms which can lower disadvantages and support disadvantaged children in educational system. At this point, the aim of the work is to compare the students' performances of learning level research results and their Socio-economic status.

2. Method

Research, locally is a relational survey as it focuses on to find out socio-economic status (SES) effects on students' school success. The section to find out student success according to a central exam applied locally and their socio-economic capabilities is formed by 4th, 5th, 6th, 7th and 8th grade students. It doesn't contain the whole universe of research because the area can be searched totally.

In the research, two different types of gathering information methods which include test questions about Turkish subject which aims to define students' success and survey materials which aims to determine students' Socio-economic status. The achievement of Turkish language class has obtained from basic skills which are aimed to earn by students in Turkish language class referred to PISA, PIRLS, and Evaluation Exam for Student Achievements and Primary education Turkish Language program by Ministry of National Education (Ayral, 2008). The preparation process of the test questions which aim to improve students' success can be summarized like this: At first stage, a group containing eight Turkish Language educators has been created from all primary schools in Altındağ in 2011-

2012 academic year. The test question created by this group personally, evaluated as a group again, made some corrections (context, format, intelligibility) at the second stage.

Students' test results and data which give information about SES of students are gathered from booklet and optical forms. The test has applied in May in 2011-2012 academic year. Applications are applied by sending and receiving booklets from school management to the class teachers in 62 schools of Altındağ. In this research, data are gathered in three workdays and 62 schools out of 67 (%93), 23.036 students out of 30.336 (%76) have reached. Exam results applied to students and data related to the survey are transferred to electronical platform by the use of optical forms and analyzed using SPSS20 computer software. Before the analysis the Turkish test answered by the students were tested for reliability analysis and Cronbach's Alpha in Turkish Tests for 4th grade ,855 in 40 items; for 5th grade ,865 in 45 items; for 6th grade ,894 in 50 items; for 7th grade ,907 in 55 items and for 8th grade ,904 in 60 items were founded. At the end of the research exam, Turkish achievement degree is calculated by converting clear correct answers to t-points with a maximum of 500 points. The variable which are thought to be effective on Turkish language success are classified by point values containing Low (0.00-0.67), Medium (0.68-1.32 and High (1.33-2.00) and considered relation between these variables and Turkish Language achievement degree. Additionally, average value of this data, frequency and percentage rates are calculated, and correlation techniques as significance test are also applied.

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3. Findings and Discussions

This section includes the data collected by using the methods and techniques mentioned in the second section, the findings of each problem acquired by the analysis of the statistical techniques, and the tables and commentary based on these findings. The resulting proportions in each socio-economic status (SES) category are as follows (Table 1).

Table 1. The Result of proportions in each SES category

Level of SES	N	%
High SES	656	2,8
Medium SES	7648	33,2
Low SES	10257	44,5
Not Known	4475	19,4
TOTAL	23036	100,0

Table 3 presents the average ratings of the three levels of SES in the order from highest to the lowest. The analysis shows that the highest SES among the three levels scored 355 in this exam. The analysis showed that the high SES (m=355,0, Sd=94,4) received the highest Turkish score among the three levels of SES, followed by middle SES (m=320,2, Sd=90,1). Low SES received the lowest Turkish score (m=296,0, Sd=84,5). The same findings are found in the Programme for International Student Assessment (PISA). PISA (OECD, 2000) result on reading literacy

average achievement in the high, medium-high and medium-low SES categories is better than for low SES students and consistently above the OECD mean. Besides, Jones (2007), in his study emphasizes that the mean score for students with higher socio-economic status (459.31) was higher than the mean score for students with lower socio-economic status (441.32), the difference was significant [t (207)=-2.450, p=. 015].

Table 3. The Result of Means and Standard Deviations of SES

N= 23036	High SES	Middle SES	Low SES
Mean	355,0	320,2	296,0
Standard Deviation	94,4	90,1	84,5

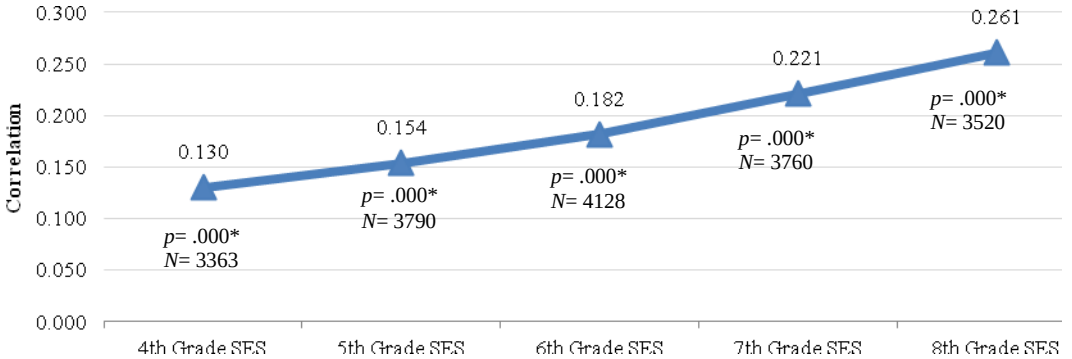
The results of correlational analyses indicates that the relationship between Turkish test score and SES is positive and statistically significant (r= .195, p=.000). The highest correlation among the SES items is father's education level (*r*= .206, *p*=.000), the second highest one is mother's education level (*r*= .150, *p*=.000) and this followed with available to use of computers in home for homework (*r*= .133, *p*=.000); household (monthly) income (*r*= .102, *p*=.000). There is almost no relationship between Turkish test score and after school activities (*r*=.003, *p*=.000). The relationship between this four items and Turkish test score is positive and statistically significant shown in Table 4. The fact that assistance for students out of class such as private education, courses and regular exclusive education organizations are not in an effective and meaningful relation is considered as an unexpected finding.

Table 4. The Result of Correlational Analyses

		Total Score of SES	Mother's Education	Father's Education	Household Income (monthly)	Available to use of computers in home for homework	After School Activities (Tutoring, Private courses etc.)
Turkish Test Score	Pearson Correlation	.195* (*p*= .000) (*N*= 18561)	.150* (*p*= .000) (*N*= 21937)	.206* (*p*= .000) (*N*= 21867)	.102* (*p*= .000) (*N*= 20820)	.133* (*p*= .000) (*N*= 22041)	.003 (*p*=.639) (*N*=20073)

* Correlation is significant at the 0.01 level (2-tailed).

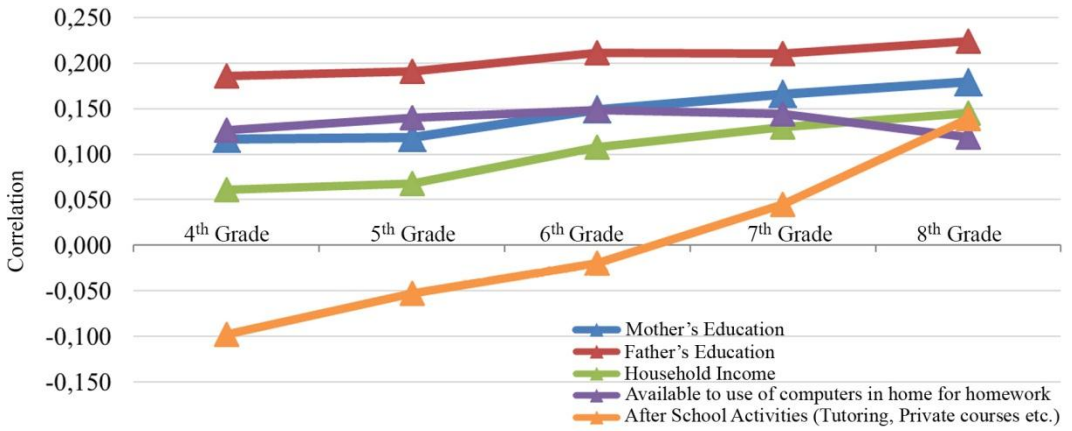
The results of correlational analyses with grade level indicate that the Turkish test score showed correlations with the all grade SES: r= .130, p=.000 with 4th grade SES; r= .154, p=.000 with 5th grade SES; r= .182, p=.000 with 6th grade SES; r= .221, p=.000 with 7th grade SES and r= .261, p=.000 with 8th grade SES (Fig 1). This finding indicates the correlation between Turkish test score and SES increases as the grades increase. In other words, achievement differences among students of varying socio-economic backgrounds remain invariant during elementary school and sharply widen in the transition from elementary school to low-secondary school. Additionally, it can be seen that SES has a statistically significant relationship with Turkish achievement. The noteworthy fact is that SES is associated highly with Turkish Language achievement as the grade increases. While, the relationship between SES and Turkish Language achievement at 4th grade, is r=.130, with a regular improvement the same relation is increased to r=.261 at 8th grade. It cannot be explained in this research that how SES is in a rising relation with achievement according to grade level.



*Correlation is significant at the 0.01 level (2-tailed).

Figure 1. The Result of Correlational Analyses with Grade Level

The changes of each SES items on Turkish achievement according to grade level are given in Fig 2. It can be said that the correlation between parents' educational level, monthly household income and Turkish language achievement is becoming high as the grades increase. The relationship is positive and meaningful, except "after school activities" at 6th grade. However, the availability of computer at home is rising from 4th grade to 6th, it is decreasing in 7th grade again and finally it becomes the lowest level with r=.119 in 8th grade.



*Correlation is significant at the 0.01 level (2-tailed).

Figure 2. The Result of Correlational Analyses with Grade Level

The more surprising fact is the effects of out-of-class assistance are showing an interesting improvement according to grade level. While in 4th and 5th grade there is a negative and meaningful relation between out-of-class assistance and Turkish Language class, in 6th grade there is no relation between these. In 7th and 8th grades, it becomes a positive and meaningful relation.

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