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What Makes a Difference For Resilient Students in Turkey?[1]

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Abstract

Problem Statement: Socio-economic background plays an important role in academic achievement, but there is a group of students beating the odds and becoming successful despite the socio-economic background of their families.

Purpose of the Study: The study aimed to define how resilient students succeed at school despite their socio-economically disadvantaged background and examine the relationship between academic achievement and other factors related to school.

Method: Descriptive analysis and multiple regression analysis were used to answer the research questions. The rate of resilient students in Turkey has been analyzed among 15-year-olds taking the PISA 2012 assessment. According to PISA 2012 Mathematics performance, Turkey had 322 resilient students. Of these, 46.9% were female and 53.1% were male.

Findings: According to the PISA 2012 mathematics performance, 7% of students in Turkey are considered resilient. Findings indicate that almost all resilient students score 482 and higher. This means that there are no resilient students performing below baseline (level 2) in Turkey. One of the other findings was that resilient students feel connected to school and have positive feelings towards school. Self-belief in achievement, being happy with achievement, greater engagement in academic activities, social skills, feeling a sense of belonging to school, and positive feelings towards school were the traits of the resilient students in Turkey. There is no correlation between resilient students' sense of belonging to school, attitudes towards school in terms of learning outcomes, and perceived success control, and their mathematics performance on the PISA 2012.

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Resilient students' attitudes towards school is a significantly predictor of these students' mathematics performance.

Conclusion and Recommendations: This study demonstrated that schools make a slight difference for resilient students in Turkey. Disadvantaged students managed to be resilient and successful, so the educational administration should make the schooling environment more positive and provide more incentives for disadvantaged students to foster their resiliency and success. Moreover, principals should develop strategies to ensure a meaningful learning process that enables disadvantaged students to become successful and accomplished citizens. A qualitative perspective is suggested to bring a deeper approach to evaluate what factors affect achievement of the resilient students' success. Longitudinal studies could be done to compare what has changed in their lives and whether the resiliency is still present.

Keywords: Resilient students, sense of belonging, attitudes towards school, perceived success control, academic performance.

Introduction

Education well prepares students to meet tomorrow's challenges with the ability to analyze, reason, and communicate their ideas effectively (OECD, 2010a). Another vital role that education plays is to promote social mobility and ensure that the socio-economic background of the family does not determine children's future (OECD, 2010b, p. 79). To make all the educational goals real, policymakers have to enable all citizens to receive a better and equitable education. Because of this, policymakers focus on education policy improvements to ensure the quality of education, more equal learning opportunities, and stronger incentives for efficient schooling (OECD, 2010c).

Social disadvantage seems to be a significant obstacle for social mobility (Pisapia & Westfall, 1994). Numerous studies indicate that the socio-economic background of students correlates with their academic performance at school (Bartley, 2006; Gary, 1999; Hanushek, 2010; Hanushek & Woessmann, 2010; Lacour & Tissington, 2011; Maughan, 1988; McCoy, 2005; OECD, 2011; UNESCO, 2006). The reverse situation also occurs. Simply spending more on education does not necessarily lead to better educational outcomes. From now on, the quote "rich and well-educated countries and poor and badly-educated countries" is not valid (OECD, 2010c; OECD, 2011). Many students around the world show better outcomes in spite of their low socio-economic background (OECD, 2011; OECD, 2014a). These students are called resilient since they overcome difficulty to achieve success. Researchers started to look specifically at these resilient students who, in spite of their disadvantaged backgrounds, maintain high academic achievement (Finn & Rock, 1997; OECD, 2011; Waxman, Huang & Young, 1997).

In the last several decades, academicians have devoted much attention to the concept of resiliency. Numerous studies have been conducted to determine what allows students to remain successful even though they face difficulties (Bartley, 2006; Benard, 1991; Condly, 2006; Frydenberg, 2004; Gordon 1995; Rouse, 2001; Grassi, 2014; OECD, 2011; OECD, 2014; Waxman, Huang, & Young, 1997). Researchers from the fields of psychology and education have studied resiliency and various resilience definitions have been defined in the literature. In psychology, resiliency has often been described as "the ability to bounce back in the face of adversity, to deal with conflict situations" (Frydenberg, 2004) and to develop a social competence even in the face of severe stress resulting from personal or environmental challenges or trauma (Benard, 1991; Frydenberg, 2004; Finn & Rock, 1997; Henderson & Milstein, 1996; Pisapia & Westfall, 1994). Gordon Rouse (2001) defined resiliency as "the ability to thrive, mature and increase competence in the face of adverse circumstances or obstacles." Educational resilience refers to "students who in spite of their economic, cultural and social obstacles still perform high" (Cabrera & Padilla, 2004, p. 152). Generally, the educational research literature calls resilient students those who perform well in spite of their disadvantaged backgrounds. Students are considered resilient because "they beat the socio-economic odds stacked against them and exceed expectations when compared to other students" in their country (OECD, 2011; OECD, 2014). In this study, the term resilient student refers those students who are socioeconomically disadvantaged and still perform high when compared with others from the same background.

Researchers have identified characteristics that promote resiliency as protective factors and the student is, to some extent, protected from the negative consequences when these factors are present. These protective factors are high expectations; supportive relations; academic success; learning skills; motivation and coping ability; goals oriented; self-esteem; optimism; and problem solving. These characteristics of resilient students are vital as it is believed that these factors can influence effective teaching and learning. Therefore, it is suggested that schools, parents, communities, and peers should promote these protective factors by providing supportive environments and opportunities to promote life skills and to take part in social life (Arastaman & Balci, 2013; Cabrera & Padilla, 2004; Dass-Brailsford 2005; Thornton, Collins & Daugherty, 2006; Pisapia & Westfall, 1994).

Most learning happens at schools, so what happens in school has a direct impact on learning (OECD, 2010, p.13). At-risk students or resilient students need support in all areas of their lives, including their academic lives, and school can positively influence the resiliency of students (Henderson & Milstein, 1996). Indeed, schools can create an atmosphere that fosters resiliency (Henderson & Milstein, 1996; Waxman, Huang & Young, 1997; Thornton, Collins, & Daugherty, 2006). A supportive climate in schools increases the chance that resilient students develop a positive personality, which enables them to succeed in completing their education and become productive citizens (Pisapia & Westfall, 1994; Thornton, Collins, & Daugherty, 2006). Schools that provide opportunities for resilient students increase the chance that their students will become resilient (Pisapia & Westfall, 1994). It has been asserted that

developing resiliency increases the possibility of personal and academic success for students. So, schools are increasingly being explored for their potential to strengthen the resiliency of students (Brooks, 2006; Henderson & Milstein, 1996; Minnard, 2002; Pisapia & Westfall, 1994).

It is also essential to note that the emphasis in resiliency research has changed recently and it is important to identify processes promoting resiliency and academic success. Still in Turkey, very little research, however, has been conducted on resilient students (Arastaman & Balci, 2013; Yilmaz Findik & Kavak, 2013) and there is no sample of the research that have looked specifically at resilient students' attitudes towards school in detail and what really makes a difference for these resilient students at school. Arastaman & Balci (2013) examined the resilience of high school students in Turkey, and tried to investigate the relationships between the student resiliency and some protective factors such as school climate; teacher attitudes and behaviors; as well as family and peer support based on student opinions. This study of academic success of resilient students and their attitude towards school allows us to understand why some students are able to achieve success while others with similar backgrounds do not. By determining how resilient students are able to remain successful at schools, we can shift our attention to predictors of academic success rather than the reasons for student failure. School interventions can be modified more effectively by identifying key components of resilient students' success.

PISA data shows that one fourth of disadvantaged students in OECD countries are "resilient", which illustrates that they beat the disadvantage of their socio-economic background. PISA gives international evidence that the policies related to education and society play a vital role in individual resilience to overcome adversity and to succeed academically (OECD, 2014b). This study was aimed at describing resilient students among 15-year-olds who participated in PISA in 2012 in Turkey and what factors related to school influenced the academic performance of these resilient students. This study provides a clearer picture of resilient students in Turkey based on student reports related to their school including the factors such as "sense of belonging to school, attitude towards school, their learning outcomes, their learning activities and perceived success control in school" and then tries to investigate whether there is a relation between academic performance and some selected factors. This research provides new insights into how educators, school administrators, policymakers, and parents can better support disadvantaged students and help them succeed in school. This may also result in decisions and strategies that enable schools to provide climates that support the developing of resiliency at school.

Method

Research Design

The present research is a descriptive and correlational study that investigates the relation between sense of belonging to school; attitude towards school in terms of learning outcomes and learning activities; and their perceived control of success to

mathematics performance of resilient students in Turkey according to the result of PISA 2012.

Research Sample

This study aimed to provide a profile of resilient students as defined according to students mathematics performance on the PISA 2012 in Turkey. In the PISA assessment, students in each country were separated into three performance categories (low, middle, and high achievers) and three socio-economic groups (low, middle, and high socioeconomic background). These two categories, one related to performance and one related to socio-economic background, were used to define disadvantaged low performers and resilient students. Students are defined as resilient if they come from the bottom third of socio-economic background distribution in their country and rank in the top third of the achievement distribution according to their mathematics performance. Indeed, resilient students perform well at school in spite of their disadvantaged backgrounds. Disadvantaged low achievers belong to the bottom third of the socio-economic status and their performance places them in the bottom third of the achievement distribution in their country. Disadvantaged low achievers and resilient students have a similar socioeconomic background, but disadvantaged low achievers are among the lowest performers while resilient students are among the top performers in the PISA mathematics assessment (OECD, 2011, p. 175-176).

The target population in this study was 15-year-old students in Turkey. Of this population, 4848 students chosen randomly from 170 schools in 12 statistical regions (NUTS) participated in PISA 2012 in Turkey. The rate of resilient students in Turkey has been analyzed among 15-year-olds taking the PISA 2012 assessment. In Turkey, the number of resilient students was 322 (7%) according to the PISA 2012 mathematics performance. Of these, 46.9% were female and 53.1% were male. The analyses were performed on the data of these resilient students in the mathematics assessment of the PISA 2012.

Research Instrument and Procedure

This study defined resilient students in Turkey according to the PISA 2012 mathematics performance and analyzed their reports through a student questionnaire. In the PISA 2012, students were asked to give their opinion about their sense of belonging to school; attitude towards school in terms of learning outcomes and learning activities; and their perceived success control at school using the statement "strongly agree", "agree", "disagree", or "strongly disagree".

Data Analysis

Based on the student questionnaire and students average score in PISA 2012, descriptive statistics were used to create a general profile of the resilient students and the degree of their thoughts are given with percentages related to the each statement under four dimensions of school as stated in the student questionnaire. Multiple regression analysis with the method of Stepwise was used to determine whether the composite independent variables (sense of belonging to school, attitude towards

school in terms of learning outcomes and learning activities; and their perceived control of success) predicted mathematics performance of resilient students in PISA 2012.

Findings

This study aimed to define resilient students' attitudes towards school and the relation between these attitudes towards school and their mathematics performance according to PISA 2012 in Turkey. For this reason, the research firstly presents national study programs and proficiency levels of mathematics literacy in PISA 2012 in Turkey. Then, attitudes of resilient students related to school and the relation between these attitudes and their mathematics performance are presented.

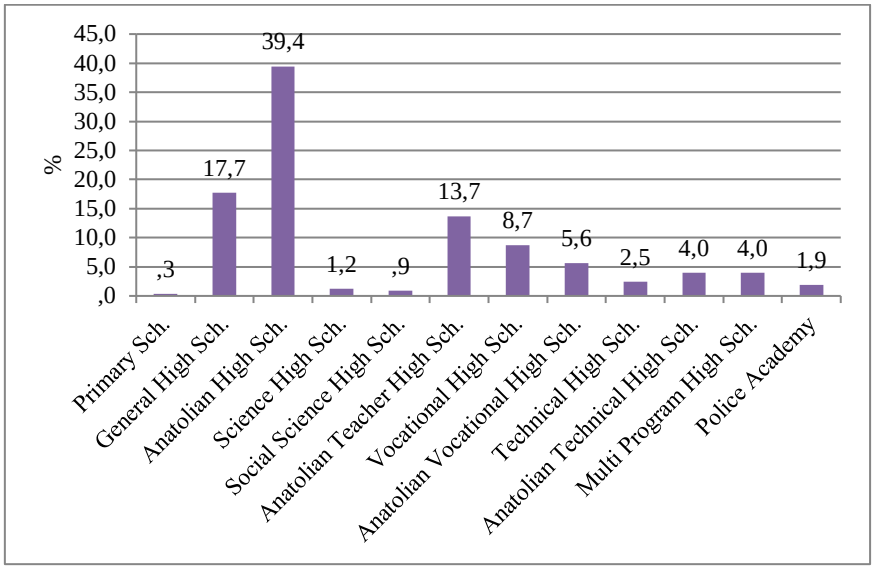

Figure 1. National study program of resilient students in Turkey

Figure 1 shows a breakdown of the schools that resilient students attend in Turkey. The graph indicates that the distribution of resilient students in the national study program differs and resilient students can be seen in every type of school in Turkey. The plurality of resilient students (39.4%) in Turkey attend Anatolian high school, while 17.7% attend general high school, 13.7% attend Anatolian teacher high school, and the remaining 29.2% attend another type of high school in Turkey.

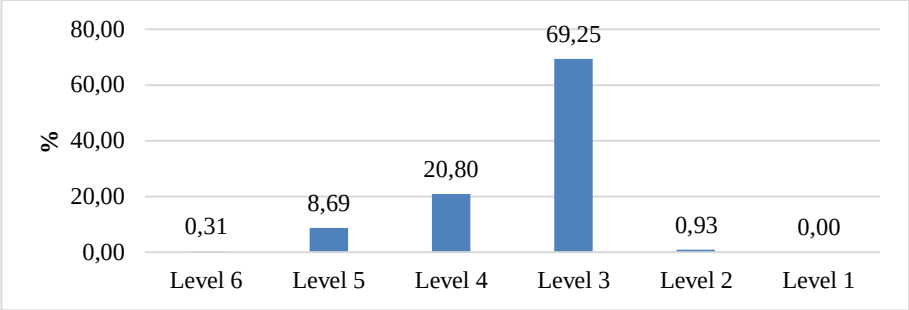

Figure 2. Resilient students' proficiency level of mathematics literacy

Figure 2 indicates the proficiency level of resilient students in mathematics literacy in PISA 2012 in Turkey. Just 0.93% of the resilient students are proficient at level 2, while 69.25% of the resilient students perform at level 3. Resilient students proficient at level 3 score higher than 482 but lower than or equal to 545 in PISA 2012. Furthermore, 20.80% of resilient students perform at level 4, 8.69% perform at level 5, and 0.31% are proficient at level 6 (i.e. they score higher than 669 points).

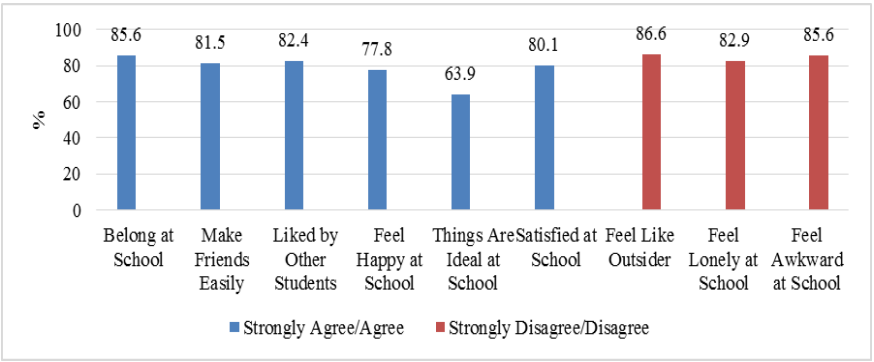

Figure 3. Resilient students' sense of belonging to school

Figure 3 shows the resilient students' sense of belonging to school. In Turkey, 85.6% of the resilient students agree or strongly agree that they belong to their school; 81.5% make friends easily; 82.4% reported that they are liked by other students; 77.8% feel happy at school; 63.9% stated that things are ideal at school; and 80.1% reported that they are satisfied at school. On the other hand, 86.6% of the resilient students disagree or strongly disagree that they feel like outsider; 82.9% do not feel lonely at school; and 85.6% disagree that they feel awkward at school.

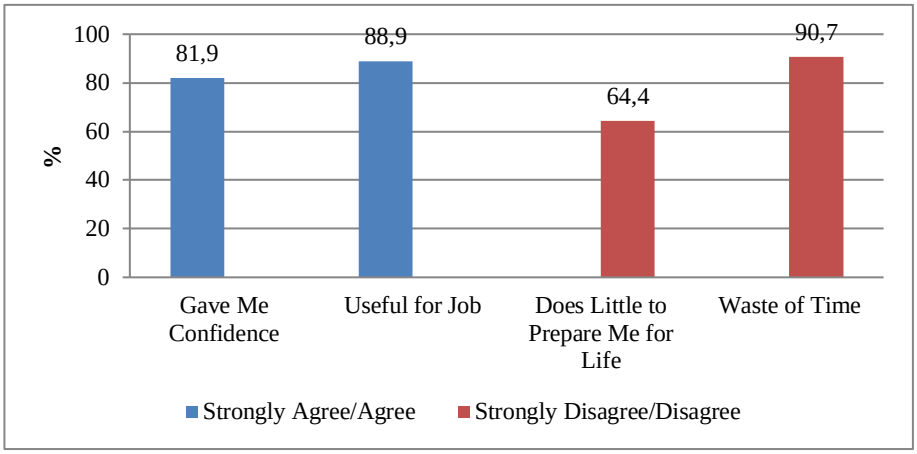

Figure 4. Resilient students' attitudes towards school: learning outcomes

Figure 4 shows the resilient students' attitudes towards school in terms of learning outcomes. Of these resilient students, 81.9% agree or strongly agree that school has helped give them confidence to make decisions and 88.9% agree that school has taught them beneficial skills for their future jobs. However, 64.4% disagree that school has done little to prepare them for their adult life after school and 90.7% do not agree that school is a waste of time.

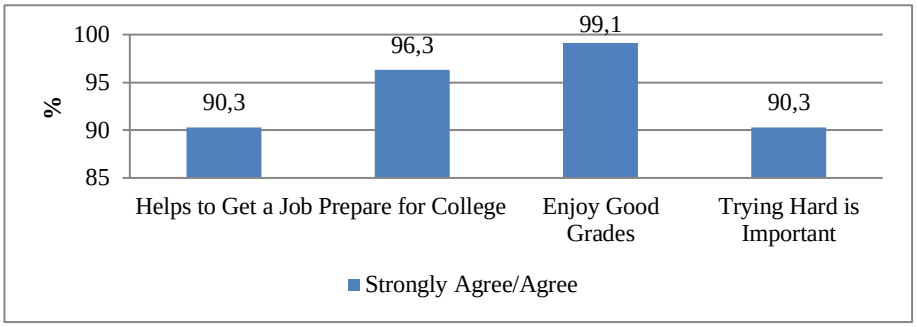

Figure 5. Resilient students' attitudes towards school: learning activities

Figure 5 indicates the attitude of resilient students towards school related to learning activities. Of the resilient students, 90.3% agree or strongly agree that studying hard at school will help them find a better job; 96.3% agree that studying hard at school will help them enter a good college. 99.1% resilient students agree that they are happy with good grades; and 90.3% agree that trying hard at school is important.

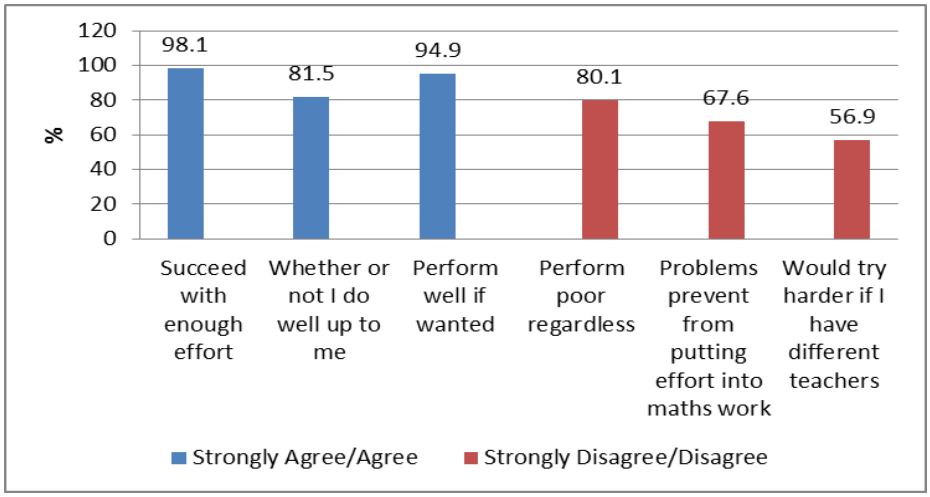

Figure 6. Resilient students' perceived control of success

Figure 6 shows resilient students' perceived success control at school. Of these resilient students, 98.1% agree or strongly agree that if they put in effort needed they can achieve in school; 81.5% agree that it is completely their choice whether or not they do well at school; and 94.9% agree that if they wanted to they could do well in school. On the other hand, 80.1% disagree or strongly disagree that they perform poor whether or not they study for their exams; 67.6% disagree that family demands or some other problems prevent them from spending much time into their school activities; and 56.9% disagree that they try harder because of their different teachers.

Table 1.

Multiple Regression Analysis of Factors Related to Mathematics Performance of Resilient Students in PISA 2012 (n=203)

Variable	Unstandardized Beta coefficient	Std. Error	Standardized Beta coefficient	t-test
Constant	587.389	23.913		24.563
Attitudes to School: LA	-4.032	1.644	-.170	-2.452
	R=0.170	R^2=0.029	F=6.014	

$p < .05$

The results of multiple regression of factors related to mathematics performance of resilient students in PISA 2012 is given in the Table 1. Resilient students' attitudes towards school related to learning activities significantly predicted mathematics

performance in PISA 2012. Attitudes towards school in terms of learning activities explained a significant proportion, that is, 3% of variance (R2=.029) in mathematics performance of resilient students in PISA 2012. The correlation between resilient students' attitudes towards school related to learning activities and their mathematics performance in PISA 2012 is significantly low (R=.17).

According to the results of the regression analysis, the equation of regression analysis predicted mathematics performance is:

$$Student\ Performance = 587.389 - 4.032$$

Resilient students' attitudes towards school in terms of learning activities (LA) is a predictor of their mathematics performance in PISA 2012. A positive relation between resilient students' attitudes towards school related to learning activities and these students' mathematics success indicates that mathematics performance of resilient students is higher than those who do not have a positive attitude towards school in terms of learning activities. Resilient students' sense of belonging to school, attitudes towards school in terms of learning outcomes, and perceived success control were removed from the final model as these factors did not correlate significantly with the mathematics performance or resilient students in PISA 2012.

Discussion and Conclusion

According to mathematics performance in PISA 2012, 7% of students in Turkey are classified as resilient. The rate of resilient students has increased since PISA 2003, but still not much when compared with OECD countries and other partner countries. Across OECD countries, 6.4% of students (i.e. nearly one million students) overcome their disadvantaged socio-economic background. In Hong-Kong-China, Korea, Macao-China, Shanghai-China, Singapore, and Vietnam, 12.5% of the resilient students beat their low disadvantaged backgrounds and perform at the highest levels in the PISA assessment (OECD, 2014b).

Anatolian high school and Anatolian teacher high school are two of the high schools that accept their students according to the transition from primary to secondary education exam results. It is important to state that most resilient students could pass the exam and have the chance go to Anatolian high school, general high school, or Anatolian teacher high school in Turkey. This indicates that resilient students in Turkey could also have the competency to pass the exam barrier to enter these schools.

PISA assesses mathematics performance along six levels of proficiency. In PISA 2012, according to mathematics performance, 42% of the students perform below this baseline in Turkey and 23% of the students across OECD countries are proficient below level 2 (OECD, 2014c). However, there are no resilient students performing below level 2. Level 2 is defined as the baseline at which students have the mathematics literacy competencies that will enable them to effectively and productively participate in their future social life.

According to the PISA 2012, only 0.93% of the resilient students in Turkey who score higher than 420 are proficient at baseline, level 2. This baseline is an essential criterion that indicates that the students scoring above baseline have the abilities that ensure their later education and careers will be better (OECD, 2014c). Studies confirm that students performing above the baseline are more likely to continue their education and acquire tertiary education (Bertschy, Cattaneo & Wolter, 2009; OECD, 2010). In Turkey, 69.25% of the resilient students perform at level 3 in the mathematics assessment in PISA 2012. Among all students in Turkey, 16.5% perform at this level; across OECD countries, 24% are proficient at level 3 (OECD, 2014c). The average mathematics performance of 15-year-olds in Turkey was just 448 in PISA 2012, and almost all resilient students scored 482 points or higher. The fact that resilient students perform at level 3 and score higher than 482 shows that these students have the ability to perform clearly described procedures and solve simple problems. In Turkey, 20.80% of the resilient students are proficient at level 4. On the other hand, 10.1% of all students scoring higher than 545 points are proficient at level 4 in Turkey and an average of 18.1% of students perform at level 4 in OECD countries according to their mathematics performance in PISA 2012 (OECD, 2014c). Of the resilient students, 8.69% perform at level 5 and score higher than 607 points. In Turkey, 4.7% of all students are proficient at level 5 and across OECD countries, 9.3% of the students perform at level 5 in the PISA 2012 mathematics assessment (OECD, 2014c). In Turkey, 0.31% of the resilient students are proficient at level 6 and score higher than 669 points. These resilient students scoring at level 6 are able to successfully complete the most difficult PISA items and they have the ability of advanced mathematical thinking and reasoning. In Turkey, 1.2% of all students are proficient at level 6 according to their mathematics performance in PISA 2012 and across OECD countries, 3.3% of all students perform at level 6 (OECD, 2014c). The students proficient at Level 5 and 6 are considered to be the ones who will innovate and produce new technologies. These students at level 5 and 6 will be the future of their countries. It has been shown that resilient students in Turkey perform better than most of the students in Turkey according to mathematics results, and these resilient students have competencies like the students in most top performing countries such as Korea, Shanghai-China, Finland, and Japan in PISA 2012 (OECD, 2014c). These resilient students are the value of the Turkish education system and should be educated well enough to innovate.

Fallon (2010) defined sense of belonging and school identification as traits of resilient students. Resilient students' sense of belonging to school is strong and this reflects how connected students feel with their schools and this is similar with the students in OECD countries. Resilient students in Turkey, like the students in OECD countries, feel connected to their school and happy or satisfied with their school. According to the OECD (2013) findings, students tend to thrive when they feel at ease at school; on the other hand, students' willingness to learn and put effort into their studies can be affected by a lack of connectedness. Similarly, Patterson (2012) found that educationally resilient students felt significantly more connected to their schools.

Resilient students reported more positive attitudes towards school, which is the same for students across OECD countries. In PISA 2012, students in OECD countries reported more positive attitudes towards school (OECD, 2013). Resilient students' positive attitudes towards school was confirmed by Waxman, Huang and Young (1997), who showed that resilient students had higher motivation and more positive perceptions towards their learning environment than non-resilient students. Furthermore, Patterson (2012) showed that resilient students had more positive schooling experiences than others.

Resilient students' self-reports about their perception that success or failure depends on their behavior indicates that they can succeed if they really want it and no problems prevent this achievement. The resilient students' perception of success matches the findings of OECD (2013). Across OECD countries, most students agree with the statements that reflect students' perceived control of their success at school. Resilient students' statement that they can control their success at school is confirmed by the research of Gordon Rouse (2001), who showed that resilient students have the ability to control their school life in the face of non-supportive environmental situations. Resilient students' self-belief in accomplishing academic success if they work hard was confirmed by Cavazos, Johnson, Fielding, Cavazos, Castro & Veal (2010), who showed that students developed a belief that their efforts and hard work would result in high academic achievement.

Self-belief in achievement, being happy with achievement, greater engagement in academic activities, social skills, feeling sense of belonging to school, and positive feelings towards school were the important traits of resilient students in Turkey. This confirms that greater engagement in academic activities, an internal locus of control, efficaciousness in math, a more positive outlook toward school, and a more positive self-esteem were characteristic of resilient students (Borman & Rachuba, 2001). According to Patterson (2012), resilient students felt more connected to their school and had more positive schooling experiences. Similarly, Borman & Overman (2004) indicated that great engagement in school activities, success in mathematics, a more positive perception toward school, and confidence were the main characteristics of resilient students. Waxman, Huang & Young (1997), concluded that "resilient students had significantly higher perceptions of involvement, satisfaction, academic self-concept and achievement motivation than disadvantaged low achievers." It has been suggested that learning environment and motivational aspects makes a difference for resilient students (Dass-Brailsford, 2005; Waxman, Gray & Padron, 2003).

The attitude of resilient students' towards school is a significant predictor of these students' mathematics performance. This finding is partially consistent with earlier research on resilient students as no relationship was found between resilient students' sense of belonging to school; attitudes towards school in terms of learning outcomes and perceived success control; and their mathematics performance in PISA 2012. School influences play an important role in resilient students' academic success, which is emphasized in the educational literature (Brooks, 2006; Clauss-Ehlers &

Wibrowski, 2007; Finn & Rock, 1997; Frydenberg, 2004; Grassi, 2014; Thornton, Collins, & Daugherty, 2006; OECD, 2014b).

Resiliency is affected by many factors, but some are subject to the school making enhancements within the school setting. This study showed that schools make a slight difference for resilient students in Turkey. The findings of the research related to the resilient students' perceptions and attitudes towards school is a productive framework for school and for principals; these findings can shed light on the following educational practices at schools in Turkey. It is believed that the educational administration needs to make the schooling environment more positive and provide incentives to learn for all students, including disadvantaged students. The disadvantaged students have managed to be resilient and successful, but the schooling environment and support must be enhanced and transmitted to all students and the entire educational system. The success of resilient students should be fostered and principals play the foremost role to maintaining a positive schooling environment; fostering success and resiliency; and spreading the positive perception towards school first among the whole school and then throughout the entire educational system. Principals should develop strategies to ensure a meaningful learning process that enables disadvantaged students to become successful and accomplished citizens.

Continued work in this area should focus on specific ways that principals and teachers can improve the schooling environment for resilient students and non-resilient students alike. A qualitative perspective is suggested to bring a deeper approach to evaluate what affects the achievement and success of resilient students. Longitudinal studies could be done to compare what has changed in their life and whether the resiliency is still present.

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Türkiye'de Dezavantajlı Başarılı Öğrenciler için Fark Yaratan Nedir?

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Özet

Problem Durumu: Araştırmalar, sosyo-ekonomik geçmiş ile akademik başarı arasında anlamlı bir ilişki olduğunu ortaya koymaktadır ve daha avantajlı sosyo-ekonomik geçmişe sahip olan bireylerin okulda daha başarılı olduğunu göstermektedir. Diğer taraftan sosyo-ekonomik açıdan dezavantajlı olmalarına rağmen yüksek başarı gösteren öğrenciler, sosyo-ekonomik engellerin üstesinden gelmenin mümkün olabileceğini kanıtlamaktadır. Dezavantajlı başarılı öğrenciler, zor koşullara rağmen okuldaki hedeflerine ulaşmak ve başarılı olmak için çaba sarf etmektedirler. Kişisel özellikleri ile çevre ve okula ilişkin değişkenlerin dezavantajlı sosyo-ekonomik koşullarının üstesinden gelerek yüksek akademik başarı gösteren bu öğrencilerin,

kişisel özellikleri, çevre ve okula dayalı değişkelerin başarıları üzerinde etkili olduğunu ortaya koyan çalışmalar bulunmaktadır. Özellikle öğrenmenin en fazla gerçekleştiği yer olan okulların sunduğu imkânların dezavantajlı öğrencilerin öğrenmelerini olumlu yönde etkilediği ve bu öğrencilerin başarılarına katkı sağladığı vurgulanmaktadır. Bu nedenle Türkiye'de dezavantajlı başarılı öğrencilerin okullarına ilişkin tutumlarının ayrıntılı olarak incelenmesi araştırmaya değer görülmüş ve okulların dezavantajlı başarılı öğrenciler için nasıl bir fark yarattığı sorusuna yanıt aranmıştır.

Araştırmanın Amacı: Araştırma ile PISA 2012 Türkiye uygulamasına katılan 15 yaş grubu öğrenciler içerisinde yer alan dezavantajlı başarılı öğrenci gruplarını tanımlamak, bu öğrencilerin okullarına ilişkin tutumlarını betimlemek ve bu tutumlarının PISA 2012 Matematik başarısına olan etkisini ortaya koymak amaçlanmıştır.

Araştırmanın Yöntemi: Çalışma, dezavantajlı başarılı öğrencilerin durumlarını betimlemek ve okula ilişkin tutumlarının başarıları ile ilişkini ortaya koymak amacıyla betimsel ve ilişkisel bir çalışma olarak desenlenmiştir. Bu kapsamda, PISA 2012 uygulamasına katılan 15 yaş grubu öğrencilerinden dezavantajlı olmalarına rağmen Matematik alanında yüksek akademik başarı gösteren öğrenciler belirlenmiştir. PISA uygulamasında ülkenin ekonomik, sosyal ve kültürel statü (ESKS) endeks dağılımına göre en alt %33'lük dilimde yer alan öğrenciler "sosyo-ekonomik açıdan dezavantajlı öğrenciler" ve ülkenin başarı sıralamasında en üst %33'lük dilimde yer alan öğrenciler ise "başarılı öğrenciler" olarak tanımlanmaktadır. Çalışma da, Türkiye'de PISA uygulamasına katılan öğrencilerden ekonomik, sosyal, kültürel statü endeksine göre en alt çeyrekte (%33 dilimde) olmalarına rağmen Türkiye'nin Matematik başarı sıralamasına göre en üst çeyrekte (%33 dilimde) yer alan öğrenciler "dezavantajlı başarılı öğrenciler" olarak tanımlanmıştır. Bu öğrenciler hem sosyo-ekonomik açıdan en alt çeyrekte yer almakta hem de Türkiye'nin Matematik başarı sıralamasında en üst çeyrekte yer almaktadır. Türkiye'de PISA 2012 uygulamasına katılan 4848 öğrenci içerisinden 322 dezavantajlı başarılı öğrenci çalışmanın örneklemini oluşturmaktadır. Dezavantajlı başarılı öğrencilerin %46.9'u kız; %53.1'i erkek öğrencidir. Çalışmanın analizleri, sosyo-ekonomik açıdan dezavantajlı olmalarına rağmen Matematik alanında Türkiye sıralamasına göre yüksek akademik başarı gösteren dezavantajlı başarılı öğrenci grubunun verileriyle yapılmıştır. Çalışmada dezavantajlı başarılı öğrencilerin okul türleri, Matematik alanındaki yeterlik düzeyleri, okullarına ilişkin tutumları yüzde olarak verilmiş ve bu dezavantajlı başarılı öğrencilerin okula ilişkin tutumlarının başarıya etkisini görmek amacıyla çoklu regresyon analizi yapılmıştır.

Araştırmanın Bulguları: PISA 2012 sonuçlarına göre Türkiye'de öğrencilerin %7'si dezavantajlı sosyo-ekonomik koşullarına rağmen Matematik alanında yüksek başarı göstermiştir. Bu öğrencilerin %39.4'ü Anadolu lisesinde, %17.7'si genel lisede okumaktadır. Diğer taraftan dezavantajlı başarılı öğrencilerin en az bulunduğu okullar fen lisesi ve sosyal bilimler lisesidir. Dezavantajlı başarılı öğrencilerin Matematik alanındaki yeterlik düzeylerine göre dağılımında bu öğrencilerden sadece %0.93'ü 2. düzeyde; %69.25'i 3. düzeyde; %20.80'i 4. düzeyde ve %8.69'u 5. düzeyde

başarı göstermiştir. Bu öğrencilerden 2. düzeyin (temel düzeyin) altında başarı gösteren bulunmamaktadır. Araştırmanın sonuçlarına göre, dezavantajlı başarılı öğrencilerin kendilerini okullarına ait hissettikleri ve okullarında mutlu ve memnun olduklarını belirttiği görülmektedir. Dezavantajlı başarılı öğrencilerin genel olarak okula ilişkin tutumlarının olumlu olduğu sonucuna varılmıştır. Sosyo-ekonomik açıdan dezavantajlı olmalarına rağmen başarılı olan bu öğrenciler istediklerinde başarılı olabildikleri ve hiçbir problemin bu başarıya engel olamayacağını belirtmektedir. Çalışma ile başarıya inanmak, başarı ile mutlu olmak, akademik çalışmalara zaman ayırmak, sosyal beceriler, okula aidiyet ve okula ilişkin olumlu tutuma sahip olmak dezavantajlı başarılı olan öğrencilerin genel özellikleri olduğu sonucuna varılmıştır. Dezavantajlı başarılı öğrencilerin öğrenme etkinliklerine ilişkin görüşleri ile Matematik başarısı arasında düşük düzeyde negatif bir ilişki olduğu ve bu değişkenin öğrencilerin başarısındaki toplam varyansın yaklaşık %3'ünü açıkladığı görülmektedir. Diğer taraftan dezavantajlı başarılı öğrencilerin öğrenme çıktılarına yönelik tutumlarının, algılanan başarı ve aidiyet duygusu değişkenleri ile PISA 2012 Matematik başarısı arasında anlamlı bir ilişki olmadığı sonucuna ulaşılmıştır.

Araştırmanın Sonuçları ve Önerileri: Tüm bu bulgular ışığında, Türkiye'de okulların dezavantajlı başarılı öğrenciler için ufak bir fark yarattığı sonucuna varılabilir. Dezavantajlı koşullarına rağmen başarılı olabilen öğrencilerin tanımlanması ve okula ilişkin görüşlerinin betimlenmesi, okulların ve okul yöneticilerinin uygulamalarına ışık tutacağı düşünülmektedir. Çalışma, olumlu öğrenme ortamlarının önemine dikkat çekmektedir. Okul yöneticileri, dezavantajlı öğrenciler de dahil olmak üzere tüm öğrenciler için olumlu öğrenme ortamları oluşturmalıdır. Okul yöneticilerinin başarı potansiyeli olan ve tüm olumsuz koşullarına rağmen yüksek başarı gösteren dezavantajlı başarılı öğrencilere yönelik uygulamaları hayata geçirmeleri gerekmektedir. Nitel araştırmalar ile dezavantajlı başarılı öğrencilerin başarılarına ilişkin derinlemesine analizler yapılabilir ve başarılarını yordayan öğretmen, aile ve çevreye ilişkin değişkenler araştırılabilir. Bununla birlikte, dezavantajlı başarılı öğrencilere yönelik boylamsal araştırmalar yapılabilir ve zaman içerisindeki varsa değişimler ve gelişmeler nedenleriyle birlikte araştırılabilir.

Anahtar Kelimeler: Dezavantajlı başarılı öğrenciler, okula aidiyet, okula karşı tutum, algılanan başarı, Matematik performansı.