THE RELATIONSHIPS AMONG ACADEMIC SELF-EFFICACY, ACADEMIC OPTIMISM, FAMILY INCOME AND ACADEMIC ACHIEVEMENT

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

HANİFE HİLAL ŞENAY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
THE DEPARTMENT OF EDUCATIONAL SCIENCES

SEPTEMBER 2018

Approval of the Graduate School of Social Sciences

Prof. Dr. Tülin Gençöz
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

Prof. Dr. Cennet Engin-Demir
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Assoc. Prof. Dr. Yaşar Kondakçı
Supervisor

Examining Committee Members

Assist. Prof. Dr. Serap Emil	(METU, EDS)	
Assoc. Prof. Dr. Yaşar Kondakçı	(METU, EDS)	
Assist. Prof. Dr. Burcu Arığ Tibet	(Ufuk Uni., EBB)	

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name : Hanife Hilal Şenay

Signature :

ABSTRACT

THE RELATIONSHIPS AMONG ACADEMIC SELF-EFFICACY, ACADEMIC OPTIMISM, FAMILY INCOME AND ACADEMIC ACHIEVEMENT

Şenay, Hanife Hilal
M.Sc., Department of Educational Sciences
Supervisor: Assoc. Prof. Dr. Yaşar Kondakçı

Semptember 2018, 136 pages

The purpose of this thesis was to investigate the relationships among students' academic self-efficacy, academic optimism, family income and academic achievement. The hypothesis of the study was that all the variables might be directly correlated with student achievement. For the data collection, firstly Academic Self-Efficacy and Student Academic Optimism scales were translated into Turkish. Later, a form including questions regarding demographic information, family income, socioeconomic status and cGPA of students was developed. The sample of the study consisted 274 participants for the adaptation study and 777 participants for the main study and the data were collected from 8 different districts in Manisa. The results of the Structural Equation Modeling analysis revealed that academic self-efficacy is the strongest predictor of achievement and that both family income and academic self-efficacy directly affect achievement. Moreover, academic press and belonging to school dimensions of student academic optimism failed to predict

achievement and only valuing school and trust in teacher dimensions were found to have an impact on student success.

Keywords: Academic Self-Efficacy, Student Academic Optimism, Academic Achievement, Family Income

ÖZ

AKADEMİK ÖZ-YETERLİK, AKADEMİK İYİMSERLİK, AİLE GELİRİ VE AKADEMİK BAŞARI ARASINDAKİ İLİŞKİ

Şenay, Hanife Hilal
Yüksek Lisans, Eğitim Bilimleri Bölümü
Tez Yöneticisi: Doç. Dr. Yaşar Kondakçı

Eylül 2018, 136 sayfa

Bu çalışmanın amacı öğrencilerin akademik öz-yeterlik, akademik iyimserlik, aile geliri ve akademik başarıları arasındaki ilişkiyi test etmektir. Çalışmada hedeflenen tüm değişkenlerin öğrenci başarısı ile doğrudan ilişkisi olacağıdır. Veri toplamak amacıyla öncelikle Akademik Öz-Yeterlik ve Öğrenci Akademik İyimserliği ölçekleri Türkçe'ye çevrilmiştir. Sonrasında öğrencilerin demografik bilgileri, aile geliri, sosyoekonomik statüleri ve genel not ortalamaları ile ilgili sorular içeren bir form hazırlanmıştır. Çalışmanın örneklemi uyarlama çalışması için 274, ana çalışma için 777 katılımcıdan oluşmaktadır ve veriler Manisa ilinde bulunan 8 ilçeden toplanmıştır. Yapısal Eşitlik Modellemesi analiz sonuçları akademik öz-yeterliğin başarıyı yordayan en güçlü değişken olduğunu ve de hem aile gelirinin hem de akademik öz-yeterliğin başarıyı doğrudan etkilediğini ortaya koymuştur. Ayrıca, öğrenci akademik iyimserliği ölçeğinin akademik vurgu ve okula aidiyet boyutları

başarıyı yordayamamış, sadece okula değer verme ve öğretmene güven boyutlarının öğrenci başarısı üzerinde etkisi olduğu bulunmuştur.

Anahtar Kelimeler: Akademik Öz-Yeterlik, Öğrenci Akademik İyimserliği, Akademik Başarı, Aile Geliri

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

TABLES

LIST OF FIGURES

FIGURES

LIST OF ABBREVIATIONS

AMOS	Analysis of Moments Structures
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
EFA	Explaratory Factor Analysis
MCAR	Missing Completely at Random
MoNE	Ministry of National Education
OECD	the Organisation for Economic Co-operation and Development
PISA	The Programme for International Student Assessment
RMSEA	Root Mean Square of Error Approximation
SEM	Structural Equation Modeling
SES	Socio-Economic Status
SRMR	Standardized Root Mean Square Residual
TLI	Tucker-Lewis Index
TURKSTAT	Turkish Statistical Institute

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

People live and exist in social settings along with their psychological and economic background. This also applies to educational settings such as schools. In the school context, since the school itself constitutes the social component, each student is considered as having two main dimensions, which are the mental state as psychological/cognitive dimension and the educational resources as economic dimension. Accordingly, students carry the differences in these components to school and those differences constitute the base for academic achievement as well.

Before anything else, student is an individual and psychological human being and receives education under the influence of his/her attitudes shaped by his/her already-constructed efficacy beliefs (Usher & Pajares, 2008). Therefore, in schools as academic contexts, student's academic self-efficacy belief is the initial driver for success (Bandura, 1977). Similarly, Schunk and Meece (2006) argue that adolescents who have high self-efficacy beliefs cope with the problems in a better way and set higher academic goals for themselves. Likewise, Pajares (1996) shows that self-efficacy beliefs have a direct effect on academic achievement. However, in both studies, it is also emphasized that school and resources, teacher, family and environment significantly affect self-efficacy beliefs of the student, and naturally the achievement. Furthermore, in their study on the sources of self-efficacy in schools, Usher and Pajares (2008) emphasize the need for analyzing self-efficacy beliefs of students more deeply and especially with regard to other contextual factors that affect self-efficacy beliefs, which include their views about school and learning.

The second component that the student holds and carries to the school context is the educational resources as economic dimension. These resources are a part of the investment for academic achievement and have been referred to as human capital in literature (Becker, 1964). On an individual level, it can be defined as transmissible knowledge and skills that the child can possibly receive from the family. Bourdieu (1986), however, defines these resources with a more social and a multi-dimensional concept, which is named as cultural capital. Cultural capital, therefore, is not just transmitted from the family but also acquired throughout one's life within the specific culture of the family. In both cases, it is inevitable that the income of the family as the economic capital emerges as the root or the determinant factor of all other types of capitals. Accordingly, the synthesis of economic and cultural/human capitals constitute socioeconomic background of student, which is one of the most substantial and significant predictor of student achievement (White, 1982; Sirin, 2005; Hoy, 2012). To this respect, the relationship between socioeconomic status and student achievement receive special attention both in OECD reports and in the literature. According to PISA 2015 results (OECD, 2016), there is a significant relationship between performance in core subjects and SES across countries. Among OECD countries, the strength of the relationship in 15 countries is above average while in 26 countries, which also include Turkey, the strength was found to be below average with less than 10% variation in science performance. Such a result is promising for Turkey considering that it appeared to be on OECD average in PISA 2012 (OECD, 2014). On the other hand, studies in the literature demonstrate results that are in contrast with PISA findings. In many studies in Turkish context, SES and achievement have been found to be significantly and highly correlated (Çiftçi & Çağlar, 2014; Aslanargun, Bozkurt & Sarıoğlu; 2016; Koza Çiftçi & Cin, 2017). In this case, the difference in PISA findings can be attributed to the fact that Turkey is already below OECD average in terms of student achievement, meaning that students in all socioeconomic groups already have low scores and that can be misleading while analyzing the relationship between SES and achievement.

All in all, the findings in the literature and reports do not show promising results for Turkey in terms of the relationship between student achievement and SES, which can be also interpreted as that students in Turkey do not start school with the same level of readiness for education. Taking that into account, it becomes even more crucial for researchers to analyze school contexts from a more sociological perspective, especially in terms of school effectiveness studies. In order to assess whether or not schools can make an increase in academic achievement, it is essential to indicate the psychological and economic contexts students live in since they establish their relationship with school based on their already-existing cognitive and social frameworks. Fan, Williams and Corkin (2011) explains this phenomenon with risk factors. Based on the extensive literature, they suggest that there are two kinds of risk factors associated with student academic failure. These are social risk factors and academic risk factors. Social risk factors include elements such as race/ethnicity, immigrant status and socioeconomic status (family income, parents' education). Academic risk factors, on the other hand, refer to the school-related factors such as school climate, structure and leadership.

Following this framework, it is evident in the literature that school-related factors do make an increase in student achievement, yet when SES or social risk factors are added into the equation, the influence of school effectiveness concept becomes questionable. At this stage, the study of Hoy (2012) made a great contribution to the field. In his study, Hoy identified school-related factors that affect student achievement regardless of socioeconomic status. The extensive review of the literature showed that three characteristics of school enhance student learning even after controlling for SES. These factors were collective efficacy, academic emphasis and collective trust in student and parent, which compose school academic optimism. He concludes that the relationship between school academic optimism as an organizational variable and teacher academic optimism as an individual variable should be examined more extensively in student achievement studies. Although it is possible to see studies regarding school (Gürol & Kerimgil, 2010) and teacher academic optimism in the literature, the studies until recently seem to have

neglected another individual variable that exist in school context, which is the student academic optimism. Tschannen-Moran and her colleagues (2013) used similar constructs in school and teacher academic optimism and added to the literature on Academic Optimism. Those constructs, therefore, were adapted as student trust in teachers, identification with school and academic emphasis of school. More importantly, in the same study, it was also revealed that, as in other dimensions of academic optimism, student academic optimism, too, is a significant predictor of student achievement regardless of socioeconomic status.

In this respect, as far as student-level variables that affect achievement are concerned, student academic optimism deserves to be the focus of attention since it distinguishes itself from other school-related variables by removing the negative impact of SES. Whereas, there have been very few studies on student academic optimism or its relationship with other variables in the literature in foreign context (Mejia Sanchez, 2016; Hsieh, Yen & Kuan, 2014) while no studies have been found by the researcher in Turkish context.

As a result, studies in the literature so far have shown that there are three main factors that strongly and directly affect student achievement, which are student's academic self-efficacy as a psychological factor, academic optimism as a contextual/social factor and family income as an economic factor. Although it is evident that these factors explain a large proportion of the variance in achievement individually, it is still unknown how all these variables are related to each other and to what extent they can predict student success when put together.

1.2 Purpose of the Study

The purpose of this study is to find out whether income, self-efficacy and academic optimism are related to student achievement, and whether these 3 variables have a correlational relationship. For this purpose, a structural model of the relationships among the variables is prepared based on the literature to see both direct and

indirect effects on the achievement. In addition to that, it is also aimed to test student academic optimism with its 3 subdimensions in Turkish context. The main and sub-research questions of the study are given below.

What are the relationships among academic self-efficacy, academic optimism, family income and achievement?

- Do student trust in teachers, student identification with school and school academic press create a latent construct called student academic optimism?
- Do students' academic optimism, academic self-efficacy and family income correlate with achievement?

1.3 Significance of the Study

Research in international and national literature so far has shown that factors other than socioeconomic background of the students are ineffective in student achievement. Recent studies however suggest academic optimism as an alternative to the factors that affect student achievement other than family income. This study, which investigates the issue of academic achievement of high school students in terms of self-efficacy, optimism and income, is suggestive for education policies in Turkey and contributes to the literature about student academic optimism, which is a new concept in international literature as well.

The results also present possible explanations for social justice leadership and school effectiveness studies since a school-related variable, which is academic optimism, is analyzed in terms of its relationship with student characteristics that schools normally cannot control (income and self-efficacy). Therefore, the findings of the study can put forward an understanding of in which ways schools can increase student achievement regardless of student's background.

In addition, as for student-level variables, the study also analyzes the level of academic self-efficacy of students from different socioeconomic backgrounds. The results of the descriptive statistitcs can be suggestive for both researchers and policy makers since it would reveal students' readiness for education in different socioeconomic groups.

Lastly, 12th grade students are taken as the sample in the study. Considering that increasing the number and quality of students in tertiary education is aimed by the Turkish government (Ministry of Development, 2006; 2013), the study is also informative for higher education studies and policies to investigate what factors would predict the success of these students who will soon be in higher education age group.

Moreover, in order to measure academic optimism and academic self-efficacy of students, two scales were translated and adaptation studies were carried out, which also contributes to Turkish literature.

1.4 Definitions of Terms

Socioeconomic status: It is an index or an indicator of someone's social and economic background as a combination of human, social, cultural and economic capitals including family income, education and occupation.

Academic achievement: It is the extent to which a student is capable of fulfilling educational tasks and can be measured by teachers (exam results, cGPA) or other institutions (governments or OECD).

Academic self-efficacy: Student's beliefs about his/her capacity to achieve and fulfill academic expections. This can include passing school exams as well as meeting parents' expectations.

Trust in teachers: The extent to which students believe their teachers are benovelent, honest, open, reliable and competent.

Student academic press: It includes student's feelings about academic expectations of both teachers and other students and their reactions to academic success.

Belonging to school: The extent to which a student feels attached to school as an institution.

Valuing school: It includes the value that student attaches to school as an institution and to what is taught in school.

Identification with school: It is the composition of students' feelings and thoughts about belonging to their school and valuing their school.

Academic optimism: It is the combination of feelings and thoughts a student holds about trusting his/her teachers, the academic explectations of school, sense of belonging to school and valuing school.

CHAPTER 3

LITERATURE REVIEW

In this chapter, the methodology of the research and the The present chapter draws together the literature related to the factors that affect student achievement. In order to that, three main areas of focus have been defined. These are school context, student psychology and parental background. For each dimension, a separate heading is assigned and the related literature is discussed with regard to its relationship with student success. In addition to that, a special emphasis is given to the studies that combine the relationship of the discussed phenomena and student socioeconomic status.

Initially, the review starts with an overview of school climate studies that aim at understanding whether the general atmosphere of school including teacher academic optimism have an effect on academic achievement. In continuation of this part, student academic optimism as a construct that is affected by school climate and its dimensions are discussed. Later, student general self-efficacy and student academic self-efficacy are described with regard to their relationship with achievement and student SES. Lastly, the importance of family income, its relation to family SES and achievement are presented in reference to parental background.

2.1 School Climate

As the formal and universal institutions of education in today's modern world, schools have always been the center of the studies in the field. Scholars have been and are still trying to analyze the school context focusing on different dimensions of it as an organization in order to understand how it is structured, functions and can be

changed. These dimensions include administrative processes such as leadership, decision making and change as well as instructional processes such as curriculum, classroom management and teaching. Other than these dimensions of school, Lunenburg and Ornstein (2012**)** put forward two characteristics of schools as the fundamental concepts. These concepts are organizational culture and climate, and school structure.

The culture of a school being more of a sociological or an anthropological term is very much affected by the environment meaning that the values and norms brought by faculty staff and students shape the culture of the school to a large extent. School climate, on the other hand, refers to the feeling shared by all of the school members and the "health" of the schools (Hoy & Hannum, 1997; Hoy & Miskel, 2001). This state of well-being originating from psychology bring the school as an organization a feature peculiar to humans, that is a "personality." This feature that is distinctive in each school enables us to analyze not only the effect of school as an organization on student outcomes but also the very unique relationship between the student and school as unities having two different personalities.

The definition of school climate has not been put explicitly by researchers and there have been inconsistencies in describing its dimensions. Hoy and Hannum (1997) defines school climate as "the set of internal characteristics that distinguishes one school from another and influences the behavior of its members" (p. 291). Cohen, McCabe, Michelli & Pickeral (2009) argue that it is “based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (p. 182) while Thapa, Cohen, Guffey & Higgins-D’Alessandro (2013) indicate that it "reflects students', school personnel's, and parents' experiences of school life socially, emotionally, civically, and ethically as well as academically" (p. 369). The concept of "school climate", at the same time, has been receiving the attention of researchers over the last decades. Unlike the initial studies that explain the construct simplistically (Zullig, Koopman, Patton & Ubbes, 2010), recent studies recognize

different dimensions of school climate. In their review study that aims to create a framework of school climate construct, Wang and Degol (2016) present four domains of school climate that are safety, community, academic and institutional environment while Thapa et al. (2013) suggest 5 areas of focus that are safety, relationships, teaching and learning, institutional environment and school improvement process. In both of these review studies, it is underlined that academic achievement of a student is directly and indirectly affected by the academic climate of the school.

In addition to review studies that are trying to generate a framework for the construct, since the emerging of the climate construct in social psychology and organization studies (Lewin, Lippitt & White, 1939; Tagiuri, 1968) and studies on educational organizations (Anderson, 1982; Halpin & Croft, 1963), it has also been a concern for researchers to come up with a way to measure school climate. Yet, as can be predicted from the fact that there is already a disagreement on the definition, generating a scale to measure school climate is also complicated and creates even more inconsistencies. Although, several attempts have been made by various scholars and these include *Organizational Health Inventory* by Hoy and Feldman (1987), *Organizational Climate Description* Questionnaire (OCDQ) by Hoy, Tarter & Kottkamp (1991), *Organizational Climate Index for High Schools (OCI)* by Hoy, Smith and Sweetland (2003), the *Tripod School Climate Index* by Phillips and Rowley (2016), and *School Climate Measure* (SCM) by Zullig and others (2014).

Therefore, it can be said that academic climate of school is as crucial as quality of teaching and pedagogy in terms of obtaining an increase in student achievement. The realization of the importance of the school climate naturally bring about many studies trying to examine the relationship between the school climate and student achievement. For instance, McNeil, Prater and Busch (2009) analyzed the climate of 3 kind of schools that are named as Examplary, Recognized and Acceptable by the district and studied the difference the climate makes in terms of student achievement. In their analysis, they found that Examplary schools, which have

higher student achievement, have healthier school climates. Similarly, Ali and Siddiqui (2016) studied the relationship between student achievement and school learning environment, which is a dimension of school climate. This study also revealed that the better the academic atmosphere both among students and between teacher and students is, the higher is the student success. Kwong and Davis (2015), on the other hand, tried explore the relationship between student outcomes and climate using a multilevel analysis in order to find out which dimensions of school climate are related to academic achievement. Using the data from a longitudinal study with over fifteen thousand participants, they gathered individual-level measurements (students' view of school safety and learning environment) and school-level measurements (institutional school safety enforcement and institutional learning environment). They found student safety and student learning environment to be statistically significant in terms of math achievement and suggest that it is important for schools to create learning environments that encourage and support students.

Although it is evident that school climate is associated with student achievement (Hoy, Hannum & Tschannen-Moran, 1998; Sherblom, Marshall & Sherblom, 2006; Uline & Tschannen-Moran, 2008; Bahçetepe & Giorgetti, 2015; Karadağ, İşçi, Öztekin & Anar, 2016), it is also crucial to understand in what ways or how it influences educational outcomes. The field of school climate investigates school characteristics or factors that affect academic achievement. This includes interpersonal relations between student and school community (teachers, administrative staff and parents) as well (Haynes, Ammons & Ben-Avie, 1997). Therefore, depending on the quality of this relationship, the school will be able to promote engagement among students (Finn & Voelkl, 1993), which would increase school attendance (Finn, 1989) and student's feeling of belongingness to school (Osterman, 2000). As an example, in a recent study, Roorda and others (2017) conducted an extensive review of literature using a new statistical technique called meta-analytic structural equation modeling (MASEM). With a sample of 179 articles and over 200,000 student participants, they aimed to explore the association

between teacher-student relationship and student achievement considering student engagement as a mediator. Their analysis documented a significant correlation and that student engagement acts as a mediator between teacher-student relationship and student success in both primary and secondary schools. Parallel with this finding, in her study about high school students' belongingness in Turkey, Sarı (2013) noted that low achieving students feel less belongingness towards their school. These findings are also supported by other studies in the literature conducted from different sociological perspectives such as race (Sirin & Rogers-Sirin, 2005; Griffin, Cooper, Metzger, Golden & White, 2017) and income (Battistich, Solomon, Kim, Watson & Schaps, 1995; Berkowitz, Moore, Astor & Benbenishty, 2017; O'Malley, Voight, Renshaw & Eklund, 2014). For instance, in a study based on the review of the articles published between 2000 and 2015, Berkowitz et al. (2017) looked for the relationship between school climate, SES and student achievement. The authors found that a positive school climate can reduce the negative impact of low SES on school success; however, they also emphasize the need for studies that employ a multilevel analysis of school climate and achievement.

2.2 School and Teacher Academic Optimism

Although school climate contains many dimensions such as student engagement, student-teacher relationship, leadership, academic learning domain as the reference point of school effectiveness studies has been one of the most prominent indicators of a successful school. Accordingly, researchers have been trying to identify school factors that are effective in making a change in student learning and more importantly, that are collective rather than specific to students (e.g. student self-efficacy), teachers or administrators (e. g. leadership) as mentioned earlier. For instance, in their pioneering study about high school achievement, Lee and Bryk (1979) investigated the school characteristics in secondary level education that affected student achievement with regard to social class, race/ethnicity and student academic background. Using data from a sample of over ten thousand students and

applying hierarchical linear modeling, their analysis revealed that academic achievement is also associated with academic emphasis of the school as well as the social background of the school.

Collective Efficacy and Trust

Moreover, Goddard, Hoy and Woolfolk Hoy (2000) pointed out the importance of another organizational construct, which is collective efficacy of schools. Based on the Social Cognitive Theory of Bandura (1986), they presented a framework and a measure for the construct suggesting that the efficacy level of the school perceived by the teachers enhances academic success of the students. Adding to this finding, Goddard and his colleagues (2015) studied the relationship among instructional leadership, teacher collaboration and collective efficacy and found that collective teacher efficacy is a significant predictor of student success and that instructional leadership and teacher collaboration indirectly affect academic achievement.

In addition to collective teacher efficacy and academic emphasis, which are taken as cognitive and behavioral responses of optimism (Hoy, Tarter & Woolfolk Hoy, 2006), Hoy (2012) asserts that collective trust of the organizations is also another construct that is related to achievement. Although the construct is composed of different dimensions such as faculty trust in principal or faculty trust in colleagues (Tschannen-Moran & Hoy, 1998), the research on trust in schools so far has shown that the main dimension that facilitates student learning is collective trust in parents and students, which are strongly correlated with each other (Van Maele & Van Houtte, 2009) and may constitute a unified construct (Goddard, Tschannen-Moran & Hoy; 2001), known as trust in clients, since its effect on achievement is direct and significant even after controlling for SES (Adams & Forsyth, 2013; Goddard, Salloum & Berebitsky, 2009; Hoy, 2012; Tarter & Hoy, 2004) in addition to the indirect effect through collective efficacy (Petersen & Smith, 2011; Tschannen-Moran & Hoy, 2000).

Except for the study by Fancera and Bliss (2011) that suggests that these constructs are not significant when controlling for SES, most of the studies concerning these collective constructs, which are academic emphasis of school, collective efficacy of teachers and collective trust of the faculty (Cybulski et al., 2005; Goddard, 2001; Kirby & DiPaola, 2011) showed that they are effective in enhancing student learning even after controlling for socioeconomic factors (Hoy, 2012; Goddard, LoGerfo & Hoy, 2004; Goddard, Skrla & Salloum, 2017) constituting a basis for challenging the idea of schools being mostly ineffective in student academic achievement documented by the well-recognized study of Coleman and his colleagues (1966). Following that, Hoy, Sweetland and Smith (2002) conducted a research on how collective efficacy and academic press of school would affect student achievement considering socioeconomic status. They suggested that academic emphasis does not directly affect math scores; rather it influences student success through collective efficacy along with socioeconomic status SES. The promising results of the studies on school-level characteristics that are effective in enhancing achievement even after controlling for SES leaded the way to a more holistic term explaining the relationship among these three variables. Hoy, Tarter and Woolfolk Hoy (2006) established a new construct, school academic optimism, composing academic emphasis, collective efficacy and faculty trust in parents and students, and looked for its relationship with student achievement and student demographic characteristics. The confirmatory factor analysis and structural equation modeling confirmed the new construct and posited that academic optimism of school significantly affect overall student achievement.

Correspondingly, Wagner and DiPaola (2011) tested the effectiveness of the construct in public high schools. Using the survey data from 36 schools as well as the demographic information, they searched for the relationship between academic optimism of school and the learning outcomes. Referring to the previous study, the results confirmed the findings of the study of Hoy and his colleagues and showed that academic optimism is still an important factor despite the negative effect of the SES on high school students' achievement.

Mcguigan and Hoy (2006) investigated the relationship between academic achievement and school academic optimism with regard to principal leadership (enabling school structure as a way of creating academic optimism in schools) and student socioeconomic status in elementary schools. The path analysis results showed that school achievement is related to school academic optimism even controlling for student background and enabling school structures enhances academic optimism of school. Likewise, Mitchell and Tarter (2016) examined the relationship between principal's professional orientation and leadership in terms of reading achievement incorporating school academic optimism as a mediator. The results indicated that socioeconomic status of the student had a significant effect on school academic optimism yet school academic optimism had a greater effect on reading achievement than student's social background.

The emergence of the concept of optimism, or more precisely, academic optimism encouraged researchers to work on different facets of optimism directing it from the collective perspective, which is a school-level characteristic, to a more individual assessment of optimism such as teacher academic optimism. Woolfolk Hoy, Hoy and Kurz (2008) define teacher academic optimism as “teachers' beliefs about themselves, their students, and their instructions” (p. 823) and suggest that teacher sense of self-efficacy, teacher academic emphasis and teacher trust in parents and students are the three facets of the construct similar to the facets of school academic optimism that include collective efficacy, academic emphasis of school and faculty trust in parents and students. Later, after some modifications in the measure, Beard, Hoy and Woolfolk Hoy (2010) also supported the confirmation of the new construct and investigated the relationship between enabling school structure, teacher academic optimism and dispositional optimism of teachers. They found that there is a significant relationship between the variables, meaning that the higher teacher academic optimism, the higher the enabling structure and individual optimism of teachers.

Overall, studies regarding school and teacher optimism so far have shown that school academic optimism and teacher academic optimism are crucial in examining school contexts and student achievement. Since the two constructs were also found to be able to resist the negative effect of socioeconomic background of students, it would not be difficult to estimate that there is a relationship both between them and among their dimensions. For instance, in a study conducted in 20 high schools in Taiwan, Hong (2017) investigated the relationship between school academic optimism and teacher academic optimism. The path analysis indicated that teacher academic optimism is strongly related to school academic optimism. Similarly, Veiskarami and his colleagues (2017) studied the relationship between school climate, collective self-efficacy and personal self-efficacy of teachers in Iran and found that subscales of all these three constructs are positively and significantly related to each other.

2.3 Student Academic Optimism

Although teachers are the main observers and affect the climate (Kılınç, 2013), Hoy (1972) asserts that school climate studies should not neglect students' views. However, most studies on school culture do not take into consideration norms within the student group (Adams & Forsyth, 2009). Especially in terms of academic optimism studies, the concept has mostly been analyzed from the perspective of the teachers.

Fan, Williams and Corkin (2011) examined students' perceptions of school climate within three aspects which are teacher-student relationship, fairness and clarity of school rules and, order, safety and discipline. Using the data from a large-scale study that included 16,168 high school students and 757 schools, they looked at the differences in the perceived school climate between individual-level variables (e.g. race, family, income, parents' education etc.) and school-level variables (school enrollment, private/Catholic school etc.). In the perceived school climate, they

included academic-emphasis, student-student relations, student-staff relations and shared values and approaches. The findings revealed that there are significant variations between these variables, yet also indicated that individual-level variables explained the majority of variance in the perceived school climate.

Doğan (2012) studied the variables that affect high school students' perception of school climate in Sincan District of Ankara. The dimensions of school climate scale the study utilized included categories such as safety, classroom management, teacher-student relations and academic guidance. He found that the perceived school climate in general is significantly related to family income, the number of the siblings, grade and mother's education.

Shukla, Konord and Cornell, on the other hand, (2016) conducted a study using other indicators of school climate such as bullying, academic expectations and engagement. Their multilevel analysis of the data from 47,631 high school students in Virginia demonstrated that students who experience positive school climate were significantly more successful and showed more eagerness to learn.

As seen in the reviewed literature, school climate context is mostly explained as a broad concept that included individual (e.g. efficacy beliefs), interpersonal (e.g. teacher-student relations) and environmental (e.g. safety) dimensions. It is important to note that even in school climate studies that try to explain the effect of climate on academic success, it is not possible to talk about a structured composition of academic climate of the school. The studies mostly employ scales such as identification, engagement or academic emphasis separately in order to measure the academic dimension of school climate index.

Based on the previous studies that try to explain the relationship between school climate and academic achievement, Tschannen-Moran and her colleagues (2013) proposed an analysis of three school characteristics that ensure a school climate in which students are oriented to succeed by and through elements of a school including relying on the teachers academically as well as feelings of acceptance to

an environment highly motivated for success. Expanding upon the theory of optimism, which is a psychosocial concept, they suggest that students' attitudes towards school greatly affect their psychology and inherently their motivation to learn. Therefore, it is not difficult to predict that no matter how well-established faculty-relations and leadership practices are built in a school in order to facilitate learning, unless students receive and feel the support, the school will fail to progress. The notion of academic optimism, therefore, was applied on student-level, as previously applied on teacher-level (Woolfolk Hoy, Hoy & Kurz, 2008). Similar to the dimensions of teacher academic optimism, the authors put forward three constructs that have been found to be effective in predicting students' will for learning and success, which are student trust in teachers, academic press of school and identification of school. Running a confirmatory factor analysis, they also revealed that the constructs form a latent construct, which they call student academic optimism. More importantly, the results also showed that this new construct directly and significantly affects student achievement even after accounting for student's socioeconomic status.

The study of Tschannen-Moran and her colleagues (2013) stands out as an important step in the field of school effectiveness bringing forward implications for two fundamental issues related to student achievement. Firstly, the student academic optimism construct provides a basis for researchers to search for both direct and success-oriented student-school relations as a whole rather than separate student-teacher and student-climate relations, encompassing crucial elements of student's orientation to school that include student trust in teachers, student's identification with school and student's view of academic emphasis of school. Secondly, the fact that it significantly predicts student achievement in spite of the negative effect of SES allows us to investigate the very unique relationship between student and the school context without any influence of socioeconomic status of individual student or school student-level social composition.

One point to clarify here is that the concept of student academic optimism is also used by Adams and Forsyth (2011). In their presentation at 2011 meeting of the American Educational Research Association, they suggested a framework and a scale for student academic optimism, which included 3 elements; student academic self-efficacy, student trust in teachers and student perceptions of home academic press. Taking into consideration that these elements are mostly related to contexts that lie outside the scope of school contexts (academic self-efficacy as an individual factor and home academic press as a parental factor), it is not possible to make implications using the mentioned scale. Therefore, the Student Academic Optimism Scale proposed by Tschannen-Moran and her colleagues (2013) is believed to be a better conceptualization to be utilized in this study as well as in school effectiveness research since all the elements in the scale (student trust in teachers, student's identification with school and student's view of academic emphasis of school) can be influenced by the faculty and school as a whole.

2.3.1 Trust in Teachers

Kochanek (2005, pp. 5) explains that in school context, teachers have to work in collaboration and depend on other teachers, parents have to trust teachers for their children's education, and teachers have to trust the principal to provide healthy school conditions, which creates dependencies and a network in the organization. Within this network during schooltime, students spend most of their time with teachers rather than administrators and other personnel. Therefore, trust would be an essential element in student's relationship with the teacher. Rempel, Micheal & Holmes (2001) define trust as "the confidence an individual has that another will act in ways that promote the fulfillment of desired goals" (p. 57). Normally being an interpersonal and relational concept, it has also been defined as on organizational level. In their extensive review of the related literature, Hoy and Tschannen-Moran (1999) put forward a conceptualization of the construct from an organizational perspective and define it as "an individual's or a group's willingness to be vulnerable to another party based on the confidence that the latter party is

benevolent, reliable competent, honest and open" (p. 189) suggesting that it has five facets. Although the concept of collective or individual trust has been examined and supported by many studies (Bryk & Schneider, 2002; Russel, Wentzel & Donlan, 2016; Maele & Houtte, 2011; Erdoğan, 2016), the analysis were based on the perspectives of the school actors other than students such as teachers, principals or parents.

Student trust, therefore, stands out as a relatively newer concept in the literature. In the book *Trust in Schools*, Bryk and Schneider (2002, pp. 32) state that in elementary schools, student-teacher trust is developed through parent-teacher trust, and therefore, students are seen as passive participants in trust relations. On the other hand, they emphasize that during high school years, peer influence becomes more effective and therefore, it would be necessary to analyze the concept of trust from a collective perspective rather than an individual one.

In that sense, Adams and Forsyth (2009) contributed to the literature suggesting a new scale that is only based on student's feeling of trust towards teachers. Developing items based on the five facets of trust theorized by Hoy & Tschannen-Moran (1999), they formed a student trust measure and also used it to understand the relationship between trust and student characteristics. The results confirmed the new construct and showed that trust is a stronger predictor of achievement than gender and ethnicity factors.

Following that, as a part of their *Student Academic Optimism* scale Tschannen-Moran, Bankole, Mitchell, Dennis & Moore (2013) formed another *Student Trust in Teachers* scale by generating items from the scale of Adams and Forsyth (2009) and Parent Trust Scale by (Forsyth, Barnes & Adams, 2006). In their analysis, it was also demonstrated that student trust in teacher is significantly correlated with achievement.

Similarly, Adams and his colleagues (2016) studied collective student trust in teachers as one of the three norms of self-regulatory climate and found that student

trust in teachers rather than teacher trust in students is the strongest predictor of self-regulatory climate, which is associated with academic achievement, despite social composition of the school.

In a recent study, Leighton, Guo, Chu & Tang (2018) examined the relationship between student trust in teachers as a socio-emotional variable, empathy towards self and peers, well-being, engagement for learning and academic achievement. Conducting a longitudinal study, they collected data from 262 elementary students and 12 teachers 2 times during a 12-month period. The SEM analysis revealed that trust in teacher positively affects well-being and empathy for peers and self. The effect on the achievement, however, occurs indirectly through teacher reported student engagement. In a similar study, Lee (2007) tested the relationship between student trust in teachers, achievement, adjustment and motivation. The analysis showed that student trust in teachers has a positive effect on student success through school adjustment and motivation. Again, in a study by Corrigan, Klein & Isaacs (2010), student trust is teacher was found to be significantly related to motivation, academic self-esteem and perceived teacher efficacy.

Polat and Abaslı (2018) analyzed the relationship between trust in teachers and students perceived problem solving skills including absenteeism and achievement. Their analyses revealed that students who trust their teachers have significantly higher grades and become less absent from school.

2.3.1. Academic Emphasis of School

In their study on the development of a measure for organizational health, Hoy and Feldman (1987) suggest that academic emphasis, which is also known as academic press, is one of the seven dimensions of a healthy school and define it as “the extent to which the school is driven by a quest for academic excellence.” (p. 32). Therefore, the assumption is that schools that have higher expectations from students are more likely to be successful. Mcdill, Natriello and Pallas (1986), on the other hand, note that although such assumption is supported by the literature,

reforms should take into account that raising expectations and standards may not give better results without any additional support, especially for at-risk students.

Likewise, Shouse (1995) studied the relationship between academic emphasis and sense of community with a sample of 398 high schools. Hierarchical regression analysis confirmed the significant association between the constructs and indicated that academic press is especially important for low-SES schools and that sense of communality is only effective when it is accompanied with high academic expectations of school.

Similarly, Fischer et al. (2013) did a study on academic press and social relationships in smaller urban high schools (4 schools) as learning communities. They had focus group interviews with teachers as well as observing classrooms and administering student questionnaires (approx. 37,000 students) about how they perceive the class and school environment. The results of the focus groups showed that teachers mostly believe that rather than the school size, individual efforts of teachers are more effective in motivating students although they added that school size and the social support affect the relationship between student and teacher positively. In addition to that, teachers also mentioned that the academic engagement of student is mostly related to the curriculum. On the other hand, statistical analysis of student questionnaires similarly revealed that academic press is a better predictor of student achievement than social support.

Furthermore, Lee (2012) investigated the relationship between students' view of school social environment (teacher-student relationship and academic press), student engagement and achievement. Using a sample of 3748 9^{th} and 10th grade students from 147 high schools, the author argued that there is a significant relationship between academic press and teacher-student relationship, however, academic achievement is affected only by teacher-student relationship, which is contrasting the findings of the related literature that supports the relationship between academic achievement and academic press (Goddard, Hoy & Woolfolk Hoy, 2000; Lee & Smith, 1999; Phillips, 1997). Lee, therefore, suggests an

explanation that internalization of the academic values and expectations asserted by the academic press of school may occur through positive relationships with teachers.

Studies regarding academic emphasis of schools in Turkey investigate the phenomenon as a component of organizational health indicators (Hoy, Tarter & Kottkamp, 1991; Korkmaz, 2007; 2011; Buluç, 2008) or school climate (Çalık & Kurt; 2010; Özdemir, Sezgin, Şirin, Karip & Erkan, 2010). For instance, Korkmaz (2005) studied the relationship between organizational health, SES and student achievement by collecting data from 791 teachers in Ankara. Regression analysis revealed that academic emphasis dimension of organizational health and SES had the strongest association with student overall achievement.

Özdemir et al. (2010) explored the factors that predict students view of school climate. Gathering data from 683 elementary students in 7 cities in Turkey, the authors documented that students' views about academic emphasis of school is significantly correlated with belongingness and supportive behavior of teachers and administrators.

2.3.1. Identification with School

The concept of "identification" has been linked to many other concepts in the literature such as "commitment", "belongingness", "valuing" and "involvement". This leads to much confusion in terms of identifying the terminology. Following that, Finn (1989) suggests that such concepts actually refer to similar behaviors or themes and proposes a model of *identification with school*, which includes two components. In this model, *identification with school* is composed of *belonging to school* and *valuing school*. Based on this model, Voelkl (1997) defines identification with school as "the bonding or attachment experiences by a student" (p. 296). Although student's identification with school has been referred in the literature mostly with regard to withdrawing from school (Finn, 1989) and race (Voelkl, 1997), researchers have also paid attention to its relation to student success.

Referring to the Social Identity Approach (Tajfel & Turner, 1979), Maxwell and her colleagues (2017) tested the relationship between school climate, student identification and academic achievement. They found that school climate, as predicted, has an effect on academic achievement, yet the effect is occurred through student identification with school.

The relationship between belonging and academic achievement has not received enough attention in the literature. Rather, it has been mostly identified with other psychological factors such as self-esteem, stress, self-identity, attachment to parents (Altınsoy & Eryılmaz, 2017) and optimism. Studies examining school context and belongingness, however, demonstrate crucial implications for school effectiveness research. For instance, in a study by Lizzio and his colleagues (2011) on student-teacher relationship and school identification of 11th grade students in Australia, it was found that relatedness of students is significantly related to the quality of teacher-student relationship. Similarly, Allen and her colleagues (2016) did a meta-analytic study comprising 51 studies on school belonging and found that among 10 elements that foster student's belonging to school including parent support, extracurricular activities etc., teacher support and personal characteristics were found to be the strongest predictors, meaning that students who have higher level of self-efficacy and optimism and who receive adequate support from teachers feel more belongingness towards their school.

Moreover, Allen and Bowles (2012) conducted a review study regarding the definition and the importance of belonging in educational settings as well as its indicators and indicated that more research is needed in order to reveal factors that affect belonging to school and that these future studies should also focus on belonging with regard to its relation to organizational features including school policies and teachers. St-Amand, Girard and Smith (2017), on the other hand, point out to the need to clarify the overlapping concepts related to school belonging.

Furthermore, in a longitudinal study across 572 high school students, Gillen-O'Neel and Fuligni (2013) explored the change of school belonging over 4-year period and

its relation to success and motivation. They utilized 3 different scales in order to measure school belonging, intrinsic value of school (appreciating school in general) and utility value of school (school as an enterprise). The findings revealed that school belonging of female students gradually decline while male students tend to stay stable. A more interesting finding, however, was that belonging to school was not found to be a significant predictor of student success unlike the findings of many other studies on high schools and middle or elementary schools. On the other hand, school belonging was found to be strongly associated with intrinsic and utility value, meaning that even though a student fails to be academically successful, it is still possible that s/he values his/her school and feels belongingness to school.

Moreover, in a more recent study about the relationship between student trust in teachers, safety and identification with school (Mitchell, Kensler & Tschannen-Moran, 2018), it was found that all these three variables are correlated with each other and that safety and student trust are significant predictors of school identification even after controlling for ethnicity and socioeconomic status.

2.4 Student Academic Self-Efficacy

2.4.1 Self-Efficacy

Social Cognitive Theory by Bandura (1986) states that persons are not passive receivers of knowledge that are cognitively and emotionally indifferent to outer context, namely the environment in which learning takes place. Therefore, one's efficacy to deal with the processes in the environment is not only a matter of being able to or knowing to act but it is also related to the cognitive and emotional reactions given by the person. Accordingly, in the school context, these reactions would be motived by the beliefs a student holds about his/her efficacy, which generates the notion of perceived self-efficacy (Bandura, 1982). Self-efficacy in general is defined by Bandura as one's thoughts about his/her ability to achieve (1982).

Bandura (1981; 1989) suggests that students establish their self-efficacy beliefs based on their previous achievements (performance accomplishments or mastery experiences), observation of their peers' performances (vicarious experience or modeling), teacher feedback (verbal persuasion or social persuasion) and emotional reactions (physiological indices or physiological states). In their literature review study, Usher and Pajares (2008), however, argued that mastery experience is the most effective source of self-efficacy. Also, expanding upon the theory, Schunk (1984; 1985; 1991) added that attributional feedback, goal setting and social comparison, and reward contingencies play a significant role in student's self-efficacy beliefs.

In addition to studies focusing on the importance of self-efficacy with regard to psychological well-being (Bandura, 1989; Bandura et al., 1999; Schunk, 1989), the positive effect of student self-efficacy on achievement has also received attention in the literature and been confirmed by many studies (Multon, Brown & Lent, 1991; Pintrich & DeGroot, 1990; Lane & Lane, 2001; Pajares & Schunk, 2001; Hampton & Mason, 2003; Telef & Karaca, 2011; Arslan, 2013; Bilge, Tuzgöl Dost & Çetin, 2014). Therefore, it is believed that what is more crucial to reveal is whether and how self-efficacy as a psychological concept is related to any other variables, especially of the school context. For instance, Bandura et al., (1996) examined parental academic self-efficacy, children self-efficacy and achievement as well as different psychosocial factors (social and emotional behavior, moral disengagement, problem behavior). The path analysis showed that parental academic efficacy contributes to academic success only through facilitating self-efficacy beliefs of their children and that socioeconomic status of the family is independent from this effect, which means that parental valuation of education matters more than family income. More importantly, referring to previous studies of Hoover-Dempsey and her colleagues (1987; 1992) on the relationship between SES, teacher efficacy and parents' efficacy and involvement , the authors discuss that the effect of parental academic efficacy on children self-efficacy is likely to occur through promoting teacher's expectations from the child, meaning that if the parents have high

academic self-efficacy, they will be more interested in cooperating with school and teachers, which, in turn, affect teacher trust in teachers.

Furthermore, Iyer and her colleagues (2017) explored whether students' future prospects are related to student self-efficacy and achievement. Applying an experimental design with country migrant workers in Shanghai, they formed two groups and manipulated the students' perception in each group having them read the 2 researches that suggest different implications. In one group, students read that country students would not have the same opportunities as city students while in the other group, they were told that they would have the same opportunities. After checking on the effectiveness of the manipulation through a questionnaire, the data was analyzed with regard to self-efficacy and achievement. The findings revealed that those who believe that they would have the same opportunities as city children had higher self-efficacy beliefs and had higher scores in mathematics.

In a recent study by Öqvist and Malstörm (2018), it was aimed to test the relationship between teacher leadership, student self-efficacy and motivation among high schools in Sweden. As predicted, the data collected from 993 students confirmed that there is a significant relationship between self-efficacy and motivation of students. An interesting finding, however, was that those students with higher self-efficacy are affected highly and negatively by poor teacher leadership, even higher than those with lower self-efficacy.

2.4.2 Academic Self-Efficacy

Academic self-efficacy is one of three main components of children’s beliefs in their efficacy. Bandura and his colleagues (1999) tested whether 7 domains of self-efficacy beliefs create latent factors. Their analysis showed that these domains had a three-factor structure, which is Perceived Academic Self-Efficacy, Perceived Social Self-Efficacy and Perceived Self-Regulatory Efficacy. In their study, the authors define academic self-efficacy as “perceived capability to manage one's own learning; to master academic subjects; and to fulfill personal, parental, and teachers'

academic expectations." (p. 261). In addition, their study revealed that academic self-efficacy beliefs had an impact on problem behavior and prosocial behavior as well as academic achievement and depression. Similarly, Gündüz and Çelikkaleli (2009) put forward that when compared to trait anxiety and peer pressure, academic efficacy belief is a stronger predictor of aggressiveness among high school students. Also, in terms of other academic variables, academic self-efficacy has been found to be positively related to problem solving skills (Çelikkaleli & Gündüz, 2010), academic self-perception (Altun & Yazıcı, 2013) and emotional engagement in classroom (Bağcı, 2017).

In a study by Arslan (2016), the relationships between high school students' academic self-efficacy, achievement, sense of rejection and educational purpose was tested. As predicted, academic self-efficacy was found to be the strongest predictor of achievement and that students with higher self-efficacy had higher educational purpose and low level of sense of rejection.

Moreover, Zimmerman and his colleagues (1992) studied the students' self-efficacy and goal setting as well as their relationship with academic attainment, achievement and parents' goals for their children. The results of the path analysis showed that self-efficacy beliefs of students affect both academic goals and achievement and that parents' goals for their children affect student success not through student self-efficacy beliefs but through student grade goals.

Likewise, Jiang, Song, Lee and Bong (2014) looked for how achievement goals of teachers, peers and parents are related to academic self-efficacy and success of Korean adolescents. The path analysis results asserted that student academic self-efficacy beliefs are the strongest predictor of achievement and that when self-efficacy factor is controlled, perceived mastery goals cannot predict student success.

Jonson-Reid, Davis, Jeanne, Williams and Williams (2005) examined academic self-efficacy and self-esteem of African American high school students and found that the relationship between these constructs is a small one. Moreover, they

indicated that what actually matters in academic self-efficacy of students is their intrinsic and extrinsic rewards of receiving education, meaning that if students believe that going to school is important in general and will be rewarding later in life, their academic self-efficacy tends to be higher.

Carroll et al., (2009) did a study on self-efficacy and achievement with regard to academic aspirations and delinquency. They used a sample of 935 students from 10 public high schools in Australia. Using structural equation modeling, the authors found that academic achievement is strongly related to academic self-efficacy of students as well as academic aspirations. However, after accounting for academic self-efficacy, academic aspirations are not effective in terms of getting higher grades.

Kim, Dar-Nimrod and MacCann (2017) investigated the relationship among teacher personality, student perceived teacher support, student performance self-efficacy and achievement in Australian secondary schools. The received data from both students and teachers showed that student performance self-efficacy, which is an essential factor in student success, is indeed predicted by teacher personality domains.

2.5. Income as Economic Capital

Beyond its financial and monetary definition in the field of economics, the notion of capital being used as a social term has greatly contributed to the field of sociology of education. The theories regarding educational investment, student achievement and social/economic background, therefore, have provided different perspectives to interpret similar phenomena. In his book *Human Capital*, Becker (1964, pp. 11-22) puts forward the concept of *human capital* and considers education and training as the most significant investments. He argues that the sum of all the investments on education including the cost of schooling, parental background and family relations forms human capital, which, in the end, will return as profit, namely achievement

and higher earnings in the future. Later, several scholars (Bourdieu, 1986; Coleman, 1988; Narayan & Cassidy, 2001) suggested social capital that is composed of social relations, networks and norms as a way to explain how human capital investments are constructed and reinforced through human relations. Bourdieu (1985), on the other hand, introduced another concept that is broad enough to involve physical/cognitive (*embodied state*), material (*objectified state*) and academic (*institutionalized state*) dimensions of human capital, which is called *cultural capital*. Although it is apparent that all these forms of capital (human, social and cultural) are directly or indirectly related to each other (Coleman, 1988; Flemmen, Jarness & Rosenlund, 2018; Heizmann & Böhnke, 2016; Schuller, 2001), in his well-recognized work *Forms of Capital*, Bourdieu (1986) asserts that economic capital stands as the root of these capitals, or if not, of their effects.

> So it has to be posited simultaneously that economic capital is at the root of all the other types of capital and that these transformed, disguised forms of economic capital, never entirely reducible to that definition, produce their most specific effects only to the extent that they conceal (not least from their possessors) the fact that economic capital is at their root, in other words – but only in the last analysis – at the root of their effects. (p. 24)

Following the framework of Bourdieu, Johnstonbaugh (2018) investigated how social and cultural capitals affect students' educational experiences. Categorizing as high and low socioeconomic status group, she interviewed 20 American female college students who attended well-equipped high-performing schools with successful teachers. Her study showed that in contrast to what many policymakers believe, attending a high performing school still does not guarantee to help a student's struggle with furthering education. For instance, when a high-SES student faces a problem, s/he can rely on the parents' knowledge or experience (cultural capital) while a student from low-SES family is obliged to fall back upon teachers or some other relatives with relevant experience (social capital).

In another article about the importance of parental income in terms of educational attainment in the US, Taubman (1989) discusses that even though there are loan or grant policies promoted by the government, whether parents are knowledgeable

enough or the restrictions on the amount of the financial assistance as well as the stress it brings would definitely have an impact on the investment in child's education. Similarly, in their review of empirical literature on investment and educational attainment, Haveman and Wolfe (1995) suggest that children of low-income families are under the risk of low attainment and that although governmental incentives reduce this risk, the size of the impact is not that large due to different forms of investments by the parents such as role modeling and motivation.

Roscigno and Ainsworth-Darnell (1999) conducted a study on the relationship between SES (income, education and occupation) and cultural capital (participation in cultural trips) with regard to student's race and achievement. Utilizing the data from National Educational Longitudinal Study (NELS) that included almost one thousand middle and high schools, the authors did a regression analysis in order to find out whether black and white children differ in terms of SES, cultural capital and achievement. The analysis showed that SES significantly influence all other variables meaning that white students have higher SES status and that as SES increases, student success and cultural capital increase as well. Moreover, it was suggested that although cultural capital has a positive impact on educational outcomes, as long as SES is concerned, it can only act as a mediator.

2.5.1 Income inequalities and its effects on educational outcomes

The relationship between socioeconomic status and academic achievement is nothing new in the literature. The studies and theories regarding the issue date back to 60s (Duncan, 1961) and continued to increase since and especially with the influence of the well-recognized Coleman Report (1966). In his extensive survey study, Coleman suggested that it is neither the school nor the teachers that predict student success but the family. Such an implication urged researchers to more deeply examine the negative impact of student background that includes social, economic, cultural and racial dimensions. In addition to the bibliographic study of Bryant, Glazer, Hansen, and Kirsch (1974), White (1982) did a meta-analytic study with almost 200 studies on the relationship between socioeconomic status and

achievement. He found that the association is positive yet a weak one and indicated that defining socioeconomic status and measurement of success as well as grade level and the year in which the study is done still has critical importance in determining the magnitude of the correlation.

Again, aiming to add to the study of White (1982), Sirin (2005) did another meta-analytic study with the articles that were published between 1990 and 2000 in order to find out whether there has been a change in the association between the constructs. The study showed that there has been a decrease in the correlation between SES and achievement during the 20-year process since White's work. The author explains that the decrease can be attributed to the change in the methodological differences in measuring SES, educational policies and technological advancements. For instance, he suggests that SES used to be traditionally measured by father's social and economic background while it is currently being measured by also the mother's. In addition to that, he also mentions that compulsory education as well as easy access to books, TVs and computers may have resulted in such decrease.

Raboteg-Saric, Merkas and Majic (2011) investigated to what extent Croatian high school students' individual (gender, age, hope and optimism) and family characteristics (cohesion, education, economic stress and status) affect their achievement. The results showed that gender, optimism and mother's education significantly affect overall GPA, however, hope was the strongest factor in determining achievement. On the other hand, contrary to the hypothesis of the authors, it was found that the economic stress and status perceived by the student was not related to achievement. The authors, however, argue that this could be because of that the two constructs were measured with students' views rather than objective indicators of family income.

In addition, Lin and Lv (2017) used the data collected by China Family Panel Studies (CFPS) in 2014 in order to find out the relationship between family income and student achievement. The analysis showed that family income indeed affects

education level of the children and achievement. However, the effect size of income on achievement was found significant only for the children from rural families.

Moreover, Kotok (2017) examined the impact of race and SES that includes parents' education, income and occupation on the achievement of 9th grade students in high performing schools in the US. The author utilized the data from High School Longitudinal Study of 2009, which included 944 schools and found that even among high achieving students, student's SES and race play a significant role in math scores. One possible explanation was, therefore, that high-SES students may benefit from high achieving schools much more than low-SES students do.

Duncan, Morris and Rodrigues (2011) tested the impact of family income on school achievement. The authors used the data from 7 studies conducted by MDRC, a policy research organization in New York, that evaluated different welfare programs aiming at assisting low-income parents in terms of childcare, income, job and training. The extensive and longitudinal data between 2-5 years also included control groups and administrative records such as prior job and income, and employment hours as well as demographic information. Considering welfare programs that included treatment and control groups as the instrumental variable, their analysis showed that these programs positively influence and increase the achievement of the children through affecting family income, however, only providing cash supplements to families made statistically significant impact on family income, and of course school success.

Elstad and Bakken (2015) wanted to explore the relationship between family income and student achievement in a Norwegian context where education is publicly funded and almost completely free. Their data included all 16-year old students that had recently graduated from middle school in Norway. The study that utilized an extensive data with over 500,000 students documented that the overall effect of family income on student GPA is small, however, the relationship becomes statistically meaningful when the lower income group is concerned. Therefore, they suggest that although an increase in family income would not be effective in terms

of educational outcomes for middle and high income groups, the effect would be much greater and significant among children of low income families.

2.5.2 Studies in Turkey

The literature in Turkey regarding socioeconomic status and income provides an insight to education studies reassuring the importance of human, social and cultural capital. For instance, studies show that socioeconomic status of the family is related to children's language development and reading (Taner & Başal, 2005; Baştuğ & Keskin, 2012), readiness for school (Erkan, 2011) and even their physical development and growing (Tuncer, 2007). Furthermore, parents' income and education has been found to be a significant indicator for achievement in mathematics (Özen Özkan & Acar Güvendir; 2014; Uysal & Yenilmez, 2011; Aydın, Sarıyer & Uysal, 2012; Bakan Kalaycıoğlu, 2015), Turkish and reading (Güvendir, 2014; Şahin, 2011), science (Özer & Anıl, 2011; Kalender & Berberoglu, 2009; Kılıç & Haşıloğlu, 2017) and in terms of their general point average (Aslanargun, Bozkurt & Sarıoğlu; 2016).

Çelikkol and Avcı (2017) investigated the factors that are related to high school students' achievement in terms of socioeconomic status in Isparta. Regarding income as the basis, they tried to see if family income determines other socioeconomic factors (e.g. having a separate room, playing a music instrument, doing sports, number of siblings). The results show that cultural capital is highly associated with income in Turkish context and that income still is a determining factor in terms of achievement.

In a study by Ebrar Yetkiner Özel and her colleagues (2013), the math scores of Turkish middle school students from TIMMS 2007 were analyzed with regard to socioeconomic status and comparisons were made in order to see whether Turkey is successful in closing the achievement gaps. The results indicated that there are considerable achievement gaps between students from low and high SES families. Also, Turkey, along with Hungary, was found to have the largest inequality based

on SES and mathematics achievement among the sample EU countries, which included Bulgaria, Slovenia, Malta, Cyprus, Czech Republic, Romania, Lithuania, Hungary and Italy.

Yelgün and Karaman (2015) did a case study in a primary school in a low SES neighborhood in Erzurum. The authors conducted interviews with teachers, administrators, parents and student to find out the factors that negatively affect student achievement. The content analysis of the interviews showed that socioeconomic status of the family was the most important factor that reduces academic success. In the interviews, socioeconomic status was referred based on the indicators such as parental income and education, siblings and home conditions. Among all these indicators, family income and education were the most commonly expressed factors that lead to failure.

Çiftçi and Çağlar (2014) examined the relationship between socioeconomic characteristics of families and high school students' YGS scores in Denizli. The regression analysis of the data gathered from all high school graduates in 2012 revealed that education support(dersane), the number of books at home and mobile ownership have greater effect on numerical scores in YGS while education support has the highest effect on Turkish-Mathematics scores.

Kalender (2015) studied what predicts the achievement gap between low-achieving and resilient students and that both having low socioeconomic status. The author used the indexes and questionnaires developed by OECD in 2012 in order to determine the socioeconomic background and to reveal students' views about school-related factors (e.g. student-teacher relationship, sense of belonging and attitudes towards school). The study showed that resilient students actually differ in terms of their views about the school. For instance, they believe that school is not a waste of time or that teachers act fairly. Also, another result was that low-achieving students have a higher degree of learned helplessness, which can be considered notable in terms of school effectiveness studies. Similarly, Önder and Uyar (2018) studied the factors that influence low-SES students' achievement in mathematics by

utilizing the data from PISA 2012 results. In order to do that, the authors compared high achieving low-SES students to low achieving low-SES students with regard to their affective traits. The structural equation model analysis put forward that in both groups, attitudes towards school was the only factor that significantly predicts student achievement.

2.6 Summary of the Literature Review

Overall, the studies in the literature so far have shown that academic self-efficacy beliefs of a student are indeed the initial driver for success (Bandura, 1977; Usher & Pajares, 2008; Carroll et al., 2009). However, this does not mean that it is the only predictor of achievement. As suggested by Usher and Pajares (2008), its relation to contextual factor should also be investigated. In this case, the context that a student live in would be the school, which refers to student academic optimism composed of 3 dimensions (Tschannen-Moran et al., 2013). As a psychological factor, it is assumed in this study that student's already constructed beliefs about his/her academic abilities would have an impact on his/her view of the school and naturally the teachers. Therefore, academic self-efficacy beliefs would not only have an influence on achievement directly, it would also affect it indirectly through school-level variables.

In addition to psychological and psychosocial/school-level determinants, the literature also has strong evidence that family income has a significant impact on student achievement (Özen Özkan & Acar Güvendir; 2014; Uysal & Yenilmez, 2011; Aydın, Sarıyer & Uysal, 2012; Bakan Kalaycıoğlu, 2015; Aslanargun, Bozkurt & Sarıoğlu; 2016). As a factor that origintates directly from the family, it is assumed that it would be related to students' self-efficacy beliefs, through which it would affect student's academic optimism as a school-level variable. On this basis, a structural model was prepared in order to test the relatioonships among all the variables. (Figure. 2.1)

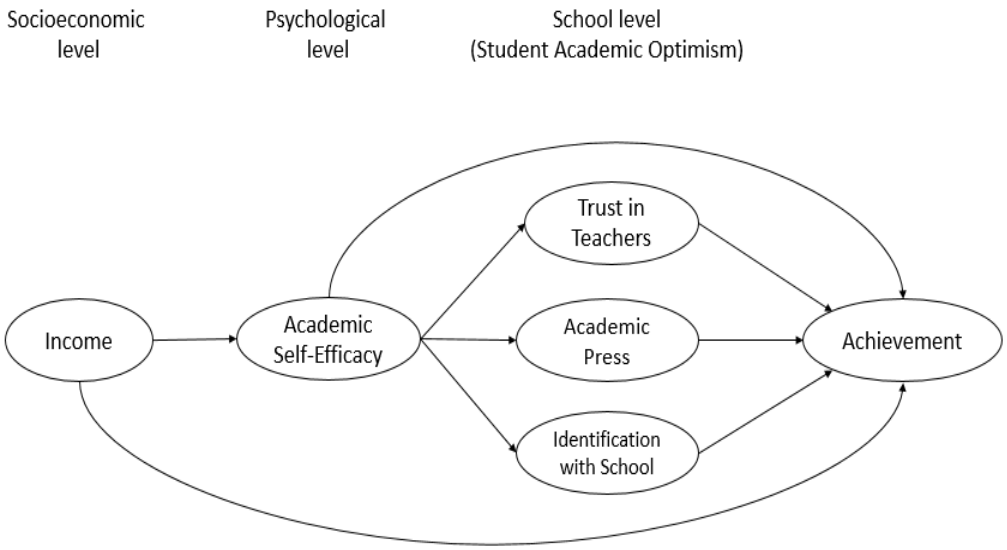

Figure 2.1: Hypothesized causal structure

CHAPTER 3

METHOD

In this chapter, the methodology of the research and the methods that are used in order to answer the research questions proposed are introduced. Firstly, how the study is designed is explained. Then, sampling technique and participant information are stated. Later, the instruments along with exploratory factor analysis results are presented. After that, the data collection and data analysis procedures are explained. Lastly, the limitations of the study are discussed.

3.1. Design of the Study

The present study is based on quantitative research approach and employs a correlational research method. It aims at exploring the relationship among student achievement and three sets of variables representing the psychological level, the school level and family background. The study specifically investigates the relationships among student achievement on the one side and their academic optimism, academic self-efficacy, and on the other side their parental income. In general terms, correlational research method investigates the association between two or more variables without an intention of manipulating the variables. Therefore, it only stands as a method of revealing the relationship instead of putting forward a causal explanation. In this study as well, the relationships between variables are investigated within the same scope and are discussed in an effort to obtain generalizable findings. Furthermore, since the study use several variables with different facets and aims at understanding in which ways these variables are related

to each other, Structural Equation Modeling (SEM) is believed to be the appropriate statistical technique for testing the hypothesized relationships.

In addition to that, the scales used in the study are originally designed for foreign contexts. Therefore, before operating the analysis for the main study, an adaptation study with exploratory factor analysis was carried out in order to assess and validate the use of scales in Turkish context.

3.2. Sampling and Participants

The study was conducted in the province of Manisa and the data were collected from high schools located in various districts in the city. According to National Education Statistics (2017), there are 190 high schools (general: 90; vocational and technical: 100) and 90,778 students (general: 45,274; vocational and technical: 45,504) in Manisa. Vocational, technical and private schools differ from public schools in terms of their missions and resources. Therefore, these school types were eliminated from the sample and only general high schools, which involves Anatolian High Schools, Social Sciences High Schools and Science High Schools, are included.

The function and objective of general high schools are specified in the Regulation of MoNE (2018) as socialization of students, transmitting the culture and knowledge of the society and more importantly, preparing student for higher education as well as future and career in business life.

In addition to that, high schools in Turkey have 4 grade levels and taking into account that rather than making comparisons among age and grade levels, this study aims at only revealing general trends of students' optimism, self-efficacy and achievement from a socioeconomic perspective, it was necessary to focus on only one grade level. In the end, 4^{th} graders, which are also called as 12^{th} graders) were believed to be the most appropriate participants for the study. The reason for that is

because 4th grade is the last year of high school and that means that students have to decide whether to pursue higher education and would be more academically-oriented. At the same time, school would be more supportive in terms of students' academic needs. In our study, except for family income, all other three factors, which are optimism, self-efficacy and achievement, are related to academic settings and students' academic beliefs. Therefore, it was believed that 4th graders would be able to analyze their schools and their beliefs academically better than the students in lower grade levels. Accordingly, first, second and third graders were also eliminated from the sample.

In the statistical report of MoNE (2017), however, it is not stated how many students there are in 4th grade in general public schools based on provinces. However, it is stated that 25.554 students attend general public high schools in Manisa. Although not very accurate, with a simple calculation, it can be estimated that there are approximately 6.300 4th grade students who attend public general high schools, which constitutes the population of the study.

Since one of the aims of correlational design is generalizability of the findings, random sampling was believed to be the best method for data collection. However, since it is not feasible to collect data from participants randomly chosen among all high school students in Manisa, cluster sampling method was utilized in both adaptation and main study. Accordingly, the names of all Anatolian and Science High Schools in all 17 districts of Manisa were put together and later, schools were randomly chosen from the list, which included 58 schools in total. All of the 4th grade students in the randomly selected high schools were the participants of the study. For the adaptation study, 2 schools from 2 different districts were chosen and visited while the main study included 8 schools in 6 different districts.

3.3. Instrumentation

The instrument used in this study included a demographic information form and two scales, which are Students Academic Optimism Scale by Tschannen-Moran and others (2013) and Academic Self-Efficacy Scale, which was one of three subscales of Self-Efficacy Questionnaire for Children (SEQ-C) developed by Bandura, Pastorelli, Barbaranelli and Caprara (1999) for children and later adapted by Muris (2001) for young adolescents.

For demographic data, a form that consisted questions regarding students' age, gender, school was also prepared. In addition to parental indicators mentioned before, in order to measure students' socioeconomic background, this form also included questions about the monthly income of the family and questions related to the number of siblings, parents' age, occupation and education as well as student's educational resources.

In addition to demographic and socioeconomic indicators, one of the main variables of the study was student achievement. In this study, an indicator of student achievement that can be received from all students and that have the same numerical rating scale was necessary. Taking into account that all schools are officially required to grade students based on a 100-point marking system, it was believed that the cumulative grade point of student on their latest school report would be relevant and useful in order to assess student achievement. Therefore, the cumulative GPA of students was also inquired in the mentioned form.

Before data analysis, in the first phase of this study, an adaptation study of both scales was carried out in order to examine the validity and reliability of the scales. In this process, the original items in the scales were sent to 3 experts of the field and then, the translation of all items including the researcher's own translation were compared in order to select the most appropriate translated items.

3.3.1. Student Academic Self-Efficacy Scale

Student academic self-efficacy is the perception that a student has about his/her own capability to achieve academically. In addition to beliefs about mastering subjects in general, it also includes student's beliefs of his/her capacity to regulate self-learning and to meet others' academic expectations.

Academic Self-Efficacy Scale utilized in this study was originally developed by Bandura et al. (1999) as a subscale of children's perceived self-efficacy. The study actually aimed to test seven domains of self-efficacy that are children's self-efficacy for regulating for their own learning, self-efficacy for academic achievement, efficacy for leisure and extracurricular activities, self-regulatory efficacy to resist peer pressure, social-self efficacy, self-assertive efficacy and self-efficacy to meet others' expectations. The factor analysis revealed that self-efficacy for regulating for their own learning, self-efficacy for academic achievement and self-efficacy to meet others' expectations represented Perceived Academic Self-Efficacy and the estimated reliability was .89. The study, however, included participants only from middle schools. Therefore, Muris (2001) did another study in order to adapt the existing scale for adolescents. In his study, he adapted the Self-Efficacy Questionnaire for secondary school students. The study included 330 participants that were between 14 and 17 years of age. His Academic Self-Efficacy Scale for the academic dimension of self-efficacy included 8 The 5-point Likert type items such as "How well can you study a chapter for a test?" and "How well do you succeed in passing all subjects?". Exploratory factor analysis showed that all of the items, except for the item "How well can you get teachers to help you when you get stuck on school- work?", loaded on one factor. Therefore, after taking out the mentioned item, all items had high loadings on the Academic Self-Efficacy factor, which were between .73 and .80. In the final factor analysis, the internal consistency reliability analysis showed that Cronbach's α for subscales were between .85 and .88.

The adaptation study of Self-Efficacy Scale to Turkish was actually carried out by Çelikkaleli, Gündoğdu and Kıran Esen (2006). As in the original scale, the authors

conducted a factor analysis using all three sub-scales. The factor loadings for academic self-efficacy dimensions ranged between .38 and .70 while the Cronbach's α was .64. In the Turkish version, the item that was taken out in the original study was included since it had a .48 factor loading. In the current study, however, it was believed that a re-adaptation of the original scale was necessary for two reasons. First of all, although the original items are phrased as questions such as "How well do you succeed in passing all subjects?", in the Turkish adaptation, the items were presented as general statements such as "I can succeed in passing all subjects.", meaning that the authenticity and the originality of the items were affected. Secondly, both Cronbach's α and factor loadings were much lower than the findings of the original study. As a result, in the current study, the items in the original study were translated again and exploratory factor analysis was conducted for the academic-self efficacy sub-scale.

Exploratory Factor Analysis for Academic Self-Efficacy Scale

Before conducting the analysis, it was examined whether the assumptions of EFA were met or not. The assumptions include KMO and Barlett's Test of Sphericity, proof of metric variables like correlations above .30, normality, and absence of outliers. (Hair, Black, Babin, & Anderson, 2010). Principal axis factor analysis with varimax rotation was used in order to test the factor loadings and dimensions. Also, no factor number was fixed.

The results of KMO and Barlett‟s Test of Sphericity yielded a significant value in Barlett‟s Test, $\chi 2(28) = 668.28$, $p < .00$. and a KMO value .85, which is acceptable consdering the the criterion value of .60. In addition to that, Kolmogorov-Smirnov and Shapiro-Wilk tests were also carried out in order to check the normality of the data. The results showed that the normality was violated. However, it is known that this test is greatly affected by the sample size. (Tabachnick & Fidell, 2007). On the other hand, Skewness and Kurtosis values were between -1.5 and +1.5. Finally, there were 12 outliers in the data, which were taken out before the analysis.

Although the number of factors was not fixed, the items of self-efficacy scale loaded on one factor. Cronbach's alpha, which was calculated for the reliability, was .82. The the factor loadings, eigenvalue and the percentage of variance are presented in the Table 1. When compared to the already conducted adaptation study by Çelikkaleli, Gündoğdu and Kıran Esen (2006), it seems that their study had a higher percentage of variance (56%) than the current study (39.2%). However, at the same time, the current study had a higher internal consistency coefficient (.82) than the previous study (.64).

Table 3.1

EFA Results for Student Academic Self-Efficacy (N = 274)

	Factor Loadings
Item	Academic Self-Efficacy
1	.43
2	.47
3	.73
4	.57
5	.59
6	.71
7	.68
8	.72
Eigenvalue	3.1
% of variance	39.2

3.3.2. Student Academic Optimism Scale

The Student Academic Optimism Scale was developed by Tschannen-Moran and her colleagues (2013). In the scale, there are three subscales that measure student's trust in teachers, student's identification with school and student academic emphasis. Items in all scales were five-point Likert type items ranging from strongly disagree (1) to strongly agree (5). Participants included over 34,000 students from elementary, middle and high schools in the US.

The student trust as a dimension of Student Academic Optimism refers to students' feelings about their teachers' benevolence, honesty, openness and competence in their academic setting. The scale was developed by adapting the items from the Parent Trust scale by Forsyth, Barnes and Adams (2006) and student trust measure of Adams and Forsyth (2009). The scale has 10 items such as "Teachers at this school are always honest with me." and "Students at this school can depend on teachers for help.". The EFA showed that items had high loadings on one factor and that the Cronbach's α was .93 for the scale while the factor coefficients ranged between .96 to .99.

Student academic press scale, which measures students' judgments about the academic environment of their school. It includes teachers' expectations and beliefs about students' abilities as well as school policies and peer expectations that encourage student achievement, is an adaptation of Academic Emphasis subscale of Organizational Climate Index of Hoy et al. (1998). The scale includes 8 items that assess school's academic environment such as ''Students try hard to improve.'' and "My teachers believe that I can learn.". The factor analysis showed that all the items loaded on one factor a Cronbach's α of .96 and that coefficient ranged from .88 to .97.

As the third dimension of the Student Academic Optimism Scale, the authors measure student identification with school with 11 items adapted from Identification with School Questionnaire (ISQ) by Voelkl (1996). The original scale had items related to feelings of belongingness to school and valuing school. In confirmatory factor analysis, the items of the two concepts were correlated and combined to form as one factor called ISQ. After eliminating 5 items from the original 16 items, Tschannen-Moran and her colleagues (2013) adapted the scale, which included items such as "School is more important than most people think" and "I feel proud of being part of my school" and did exploratory factor analysis. Except for the item "The only time I get attention at school is when I cause trouble", all the other ten items indicated significant covariance, meaning that belongingness and valueing loaded on one factor as in the study by Voelkl (1996). The α coefficient of reliability was found to be .96 while the factor coefficients ranged between .70 and .97.

After the three separate exploratory factor analysis to determine the construct validity, the authors also tested whether these three factors (trust in teachers, student academic emphasis and identification with school) would form a new construct called Student Academic Optimism. Confirmatory factor analysis approved the new contrast and showed a good fitting model. The factor scores for the variables are presented below.

Table 3.2

CFA for Student Academic Optimism Scale in the Original Study

Variables	N	Factor Loadings	R^2
Student trust in teachers	10	0.97	0.95
School academic press	8	0.98	0.96
Identification with school	10	0.98	0.97

Exploratory Factor Analysis for Student Academic Optimism Scale

Student Academic Optimism Scale has 3 dimensions, which are 10-item Trust in Teachers, 8-item School Academic Press and 10-item Student Identification with School scales. In order to assess construct validity, three exploratory factor analysis were conducted, and therefore, assumptions of EFA were checked for each scale seperately.

Assumptions

For Trust in Teachers Scale, the results of KMO was .94 while the value for Barlett‟s Test of Sphericity was found to be significant, $\chi2(45) = 1947.80$, $p < .00$. No correlation coefficient less than .30 was found. Kolmogorov-Smirnov and Shapiro-Wilk tests results violated normality. However, Skewness and Kurtosis values yielded that the data was normal. Also, no outliers were found.

For School Academic Press Scale, KMO was .83 and the results for Barlett's Test of Sphericity was $\chi2(28) = 688.391$, $p < .00$. Kolmogorov-Smirnov and Shapiro-Wilk tests results were significant, which violated normality. There were no outliers. However, the result of Skewness and Kurtosis values showed normality. In addition to that, there were two items that had correlation coefficient score that is lower than .30, which will be discussed in the EFA results below.

For Student Identification with School Scale, again Kolmogorov-Smirnov and Shapiro-Wilk tests showed that the data was not normal while Skewness and Kurtosis values revealed that the data was normal. KMO (.88) and Barlett's Test of Sphericity ($\chi2(45) = 1280.036$, $p < .00$) assumptions were met. Also, there was no correlation coefficient score below .30. In addition to these, there were no outliers.

EFA Results for Student Academic Optimism Scale

EFA results for Trust in Teachers Scale items showed that a single-factor emerged, which explained 61.21% of the variance.

Table 3.3

EFA Results for Student Trust in Teachers (N = 274)

Item	Factor Loadings
1	.82
2	.68
3	.78
4	.81
5	.83
6	.76
7	.77
8	.72
9	.80
10	.79
Eigenvalue	6.12
% of variance	61.21
Cronbach's alpha	.86

The exploratory factor analysis for School Academic Press showed that the scale loaded on two factors. Besides, the two items (item 1: "*Students respect others who get good grades*" and item 5: "*The content of my courses are challenging*") showed low factor loadings. Therefore, it was necessary to take out these two items in order to sustain the validity of the construct. There analysis of the data resulted in one-factor.

Table 3.4

EFA Results for Academic Press for School (N = 274)

	Factor Loadings	
Item	First analysis	Second analysis
1	**.52**	**-**
2	.67	.51
3	.70	.71
4	.61	.60
5	**.32**	**-**
6	.67	.69
7	.67	.68
8	.73	.76
Eigenvalues	.70	2.69
% of variance	8.8	44.89
Cronbach's alpha	.82	.82

Note: Items that were eliminated appear in bold.

The EFA for Students' Identification with School yielded that the items loaded on two factors. The factor loadings showed that the reason was not because some items did not correlate but because specific itesm had high factor loading when brought together. As can be seen in the Table 3.5, item 1, 4, 7, 8, 9 and 10 load on one factor while item 2, 3, 5 and 6 load on another factor.

Table 3.5

EFA Results for Students' Identification with School (N = 274)

	Factor Loadings	
Item	1	2
8	.84	
10	.76	
1	.62	.40
4	.58	
7	.50	.48
9	.45	
6		.73
5		.95
3	.44	.61
2	.45	.54

Such result is not surprising since in the original study, the authors comprimised and adapted the items from The Identification with school questionnaire (ISQ) (Voelkl, 1996). In the original study, Voelkl used confirmatory factor analysis in order to test the relationship between feelings of belongingness in school and sense of valuing school. The results showed that those two variables significantly correlated with each other and creared a new contruct named Identification with school. Similarly, in this study, the exploratory factor analysis yielded that there were 2 factors and when the items are examined together, it can be easily observed that one factor measures belongingness while the other measures valuing school. Therefore, after the factor loadings are analyed, exploratory factor analysis was conducted again for each dimensions of Student Identification with School. In each analysis, the items loaded on one factor.

Table 3.6

EFA Results for Belonging to School (N = 274)

Item	Factor Loadings
8	.87
10	.80
1	.70
4	.63
7	.62
9	.51
Eigenvalue	2.96
% of variance	49.47
Cronbach's alpha	.84

Table 3.7

EFA Results for Valuing School (N = 274)

Item	Factor Loadings
6	.74
3	.72
5	.70
2	.63
Eigenvalue	1.97
% of variance	49.39
Cronbach's alpha	.79

3.3.3. Family Income and Other Socioeconomic Indicators

One of the variables in this study is the family income, which can be considered as one of the indicators of socioeconomic background as discussed in the literature. In order to obtain data about parental income, the analysis of Turkish Statistical Institute is taken as the basis. According to "Distribution of Annual Household Disposable Income by Quintiles ordered by Household Disposable Income, 2006-2016" report (2017a), the amount of annual household income is grouped into 5 equal 20% groups, as the first quintile having the lowest annual income and the fifth having the highest. Since the data about the general income of the family is recieved from the student itself, it was believed that it would be easier to inquire about the monthly income rather than the annual income. Therefore, using the TUKSTAT's data, the income of the household was calculated in order to create income groups based on monthly income.

Table 3.8

Distribution of household disposable income by quintiles, 2016 by TURKSTAT

Variables	Total	1st 20%	2nd 20%	3rd 20%	4th 20%	5th 20%
Percentage (%)	100,0	6,3	10,6	15,2	21,6	46,3
Mean (TL)						
Annual	41 399	12 957	22 015	31 448	44 758	95 811
Monthly	3 449	1 079	1 834	2 620	3 729	7 984

In addition to TUKSTAT's data on household income, the hunger limit (food expenditure) of a family was also considered in order to have a more reliable and explanatory way of grouping the family income. According to the data of Hunger and Poverty Limit Research carried out by Confederation of Turkish Trade Unions (Türk-İş) for December 2017, hunger limit for a family is around 1600TL a month, meaning that the first and the second quintile in the distribution of TURKSTAT's data are already under the hunger limit and can be combined as a one group. Leaving out the fractions to get an approximate number, it was possible to create four groups of income, which are "below 1500", "1500-2500", "2500-3500" and "over 3500".

As discussed in the previous chapter, parental income is very suggestive in terms of identifying socioeconomic status of the student, which combines the cultural, social and human capital of the student. However, in order to reexamine and reassure income's predictability of socioeconomic background, some questions regarding the educational resources that students have, and that can directly promote student learning were added to the questionnaire. These questions were formed based on the assumption that income as one of the elements of SES would be also related to other sociological measures such as parents' education and occupation, living conditions, cultural activities and the amount of education recieved.

In order for students to indicate their parents' level of education, 9 education levels such as illetarete, elementary school, university were placed in the questionnaire. Similarly, the data about parents' occupation was recieved by having students choose among the options such as government officer, retired, worker in private sector. Moreover, Roscigno and Ainsworth-Darnell (1999) argue that participation in cultural activites are also more prominent in families with higher socioeconomic status. As part of cultural capital, to which the authors refer as "*societally valued knowledge"*, children of parents with higher education level and well-paid jobs would be more involved in extracurriculur cultural activities. Parallel with that, in

this study, students were also asked to indicate whether they do sports regularly or play or learn to play an instrument.

In addition to that, Becker (1964, pp. 22) asserts that in terms of family income and human capital, the number of children in the family appears to be an important factor in the amount of investment made by the family. He explains that parents' monetary investment in the human capital of each individual child, such as school cost, is negatively affected by the number of children in the family. Moreover, Bourdieu (1986) suggests that one way of accumulating capital is the cultivation of parents and that would be affected by the time allocated for the culture transmition. Therefore, it can be assumed that the time allocated for each child is also affected by the number of the children in the family, meaning that the more children parents have, the less time they would have to spend with them. Moreover, on this basis, students were also asked to indicate the number of the siblings they have.

In TURKSTAT data on living conditions in Turkey (TURKSTAT, 2017b), statistics regarding some essential durables are given. These are washing machine, dish washer, fixed telephone line, automobile, refrigirator and computer. Following that, two questions about automobile as a means of transportation from home to school and computer for course activities such a homework preparation were placed in the questionnaire. Together with these two questions, questions regarding internet connection and owning a separate room were also included since it was believed that these two facilities would be conducive to learning. ("*Do you own a personal computer?", "Does your family own a car?" "Do you have a bedroom of your own in your house?", "Do you have internet connection in your house?*",)

Lastly, in addition to the effect of parental background and economic support on the child, it is also evident that direct educational investments such as extracurricalar activities are very effective in increasing student achievement (Akbaba Altun & Çatan, 2008; Çiftçi & Çağlar, 2014). Such educational activities would include recieving private courses from a tutor to pass school exams or getting help from private institutions to get higher scores in university entrance exams(dersane/etüt).

Therefore, in order to see whether income or SES groups differ in terms of such investment, one more question was also added to the questionnaire. ("*For your studies, do you receive any help from institutions other than your school (special or private teaching institutions), or from any person (tutoring)?*")

3.4. Data Collection Procedure

The questionnaires were 3 pages and printed on double-sided A-4 papers. It included 3 sections, which included demographic information, Student Academic Self-Efficacy Scale and Student Academic Optimism Scale. Along with the questionnaire, an Informed Consent Form was also prepared to be distributed with the questionnaires as a separate page. In addition to that, because the students are under 18, a Parental Approval Form was also needed for the study to be conducted. In this form, parents were informed about the purpose of the study and that the consent of their children would also be received before conducting the study.

As a requirement of the data collection procedures for conducting the research, a formal permission letter both from METU Human Subjects Ethics Committee and Ministry of National Education were received. Later, the selected schools were visited by the researcher. During the visit, the researcher firstly had a short meeting in order to inform the school principal about the purpose and procedure of the study. Since it is required that the researcher visits school the day after, it was also discussed with the principal at what time it would be appropriate for the researcher to come and distribute the questionnaires. After that, the principal or the assistant principal informed all of the teachers who teach 4^{th} graders about the study during the break. When the break ended, the researcher visited the classes one by one to distribute the Parental Approval Form and informed the students about the study and that they need to bring the forms signed so that they can fill the surveys the day after. In order to reduce the risk of students forgetting to bring the signed forms, no Parental Approval Form was distributed on Fridays.

When the researcher visited the schools the second time, firstly the parental forms were collected. After that, Informed Consent Forms were distributed along with the questionnaires. The Informed Consent Forms include a section that requires a name and signature; therefore, in order to ensure confidentiality, the signed forms were collected separately from the questionnaires. All the forms and questionnaires were distributed and collected during class hours and the teacher was present in the class. However, no teacher intervened in or made a comment about the questions while students were filling in the questionnaires in order not to affect students' answers.

3.5. Data Analysis

The analysis of the data was carried out using SPSS 24, AMOS 24 and MPLUS softwares. In addition to descriptive statistics of the demographic data and other variables, the adaptation of the two scales utilized to measure student academic optimism and student academic self-efficacy was done through exploratory factor analysis (EFA). In the main study, confirmatory factor analysis under Structural Equation Modeling (SEM), which is a method that applies different correlational design methods at the same time such as path analysis and factor analysis (Freankel et. al., 2012), was used in order to test the factors under Student Academic Optimism scale. Moreover, in order to analyze the relationship between achievement, income, student academic optimism and academic self-efficacy, path analysis was carried out.

3.5.1. Model Testing

The model testing in Structural Equation Modeling, as Schumaker and Lomax (2010, p. 55) recommends, includes 5 basic steps. These steps are model specification, model identification, model estimation, model testing and model modification. In model specification step, the literature, theories and related research are studied to deveop a theoretical base and model. In the model identification step, it is made certain that the parameters can be specified on the

basis of the sample. Then, model estimation step requires examination of the methods to estimate population parameters. Therefore, SEM analysis is conducted and in this process, several fitting functions such as ordinary least squares (OLS) or maximum likelihood (ML) are utilized. After running the analysis, in the model testing step, it is tested whether the data obtained from the sample fits the hypothesized model or supports the theory. In order to find this out, model fit indexes are checked. Based on the model fit indexes Kline (2011, p. 204) puts forwad, in this study, model chi-square, Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) values were used.

Although the model testing results are explanatory in terms of fitness, in Structural Equation Modeling, it is still possible to modify the data and try to find a way to generate a model that fits the data better. After modifying the model, analysis to test the model are carried out again and parameters are checked based on the model fit indexes.

3.6. Limitations of the Study

The study has limitations, especially related to its measurement of variables. First of all, although academic self-efficacy is a relatively more academic-oriented measure of self-efficacy compared to general self-efficacy, it is still suggested by some authors that subject-specific measurements of self-efficacy such as mathematics self-efficacy would predict self-efficacy level of students more accurately (Usher & Pajares, 2008). Therefore, while students were assessing their own academic self-efficacy, they might have felt hesitant about their answers since they might be feeling more efficient in some subjects than others.

Investigation of the effect of optimism, self-efficacy and income on achievement also requires a measure for achievement. How to measure achievement is still a controversial topic in the field of education. In this quantitative study, however, a

widely used achievement score was needed since the data would be collected from a big population and as a regular and mandatory process in public schools; students are asked to state their GPA scores on the survey. However, GPA scores in Turkey are determined by the students' exam results that are prepared and scored by the teachers. Therefore, it can be considered as a big limitation in this study that GPA scores can be greatly affected and manipulated by the teachers both in terms of results and the format and questions of the exams.

Moreover, while students were filling the questionnaire, the teacher was present in the class. Although teachers never interrupted the process and kept silent, taking into account that the scales had items related to teachers, students' answers might have been affected by the presence of the teachers.

CHAPTER 4

RESULTS

In the previous analysis, in order to test the reliability and factor structure of the translated scales, Exploratory Factor Analysis (EFA) was conducted. The results supported that Academic Self-Efficacy, Trust in Teachers, School Academic Press, Belonging to School and Valuing School Scales can be used seperately for measurement. However, in order to test construct validity of the scales, Confirmatory Factor Analysis (CFA) was also conducted for the scales. Moreover, this study had two sub-research questions and one of them is whether Trust in Teachers, School Academic Press, Belonging to School and Valuing School Scales form a latent construct called Student Academic Optimism, which was also tested using CFA.

After obtaining the results for CFA, demographic statistics for participants and descriptive statistics for the scales are presented. In the descriptive statistics results part, the answers for the questions regarding the socioeconomic status of the students are compared with the results for students' family income in order to investigate whether income is representative for SES as discussed in Literature Review and Methodology sections.

Lastly, as the main research question for this study, in order to investigate the relationships among Academic Self-Efficacy, Academic Optimism, Family Income and achievement, Structural Equation Modeling (SEM) was performed after the assumptions are checked.

4.1. Confirmatory Factor Analysis

In order to check CFA assumptions, analysis for sample size, missing values, univariate and multivariate normality, homoscedasticity and linearity, and multicollinearity_were carried out. For both scales, the main assumption was that there should be no missing values in the data and the sample size should be adequate. After the Missing Value Analysis, specific assumptions will be checked seperately.

Sample Size and Missing Value Analysis

In total, the data had 790 participants or cases. According to Hair et al. (1998, pp. 98), in order to run factor analyisis, the sample size should be at least over 50 and at least 5 cases are needed per variables. In this case, the sample size appears to be adequate.

The missing data analysis showed that none of the scales had significant values for Little's MCAR test, which means that the cases with missing values are not systematically different from the other cases that did not have missing values. Kline (2011, pp. 56-58) explains that there are four ways of dealing with missing data. One of them is single-imputation method, which includes group-mean substitution and regression-based method imputation. Regression-based method imputation is a more sphisticated way of dealing with missing values because replacing the values with group means may result in the distribution of the data being more peaked at the mean. However, in this study, the data had only 7 missing values and had very adequate sample size, meaning that the group-mean substitution would not affect the distribution. Therefore, the missing values were replaced with group means. In terms of GPA variable, 3 cases were found to have missing values. Since it is a one-item variable, those three cases were eliminated.

4.1.1. Confirmatory Factor Analysis for Academic Self-Efficacy

Assumptions

Skewness and Kurtosis values were between -1.5 and +1.5, which suggests that the data is normally distributed. According to Kolmogorov-Smirnov and Shapiro-Wilk test results, normality was violated. On the other hand, exept for the histograms of two items, all histograms and Q-Q plots showed a normal distribution of the data. Moreover, Mardia's test for multivariate normality supported the normality assumption. Also, 7 outliers were taken out from the data.

CFA Results for Academic Self-Efficacy

Confirmatory Factor Analysis results showed that there was a significant chi-square value ($\chi 2$=203.399, p=.00). The comparative fit index (CFI) and non-normed fit index (NFI) values were .92 while Tucker-Lewis Index (TLI) was .90. The root mean square error of approximation (RMSEA) was found to be .10 and SRMR was .03, which indicated a poor fit for the factor analysis (Browne & Cudeck, 1993). Therefore, modification indices of error were checked to find the errors with highest values.

The pairs ε1-ε3 had the highest error covariances. Accordingly, covariance was drawn between the items, factor analysis was conducted again. The results of the second CFA showed that that there was a significant chi-square value ($\chi 2$=69,022, p=.00), which indicates that less-than-adequate model fit. On the other hand, CFI value was .98. NFI and TLI values were .97. RMSEA was found to be .05 while SRMR was .02, which indicates a good fit for the model.

4.1.2. Confirmatory Factor Analysis for Student Academic Optimism

Assumptions

Univariate and Multivariate Normality: For Trust in Teachers, School Academic Press, Belonging to School and Valuing School scales, Skewness and Kurtosis

values were between -1.5 and +1.5, which suggests that the data is normally distributed. According to Kolmogorov-Smirnov and Shapiro-Wilk test results, normality was violated. On the other hand, all Q-Q plots showed a normal distribution of the data. Furthermore, in order to test multivariate normality, a Mardia's test was conducted. The coefficient of multivariate kurtosis was found to be $\alpha = 95.13$, which violated the normality assumption.

Outliers and Multivariate Outliers: For Trust in Teacher and School Academic Press scales, some outliers were observed. However, considering that it is not unusual to obtain outliers with large sample size and that CFA also requires an analysis for multivariate outliers, the results for multivariate outliers are more crucial (Tabachnick & Fidell, 2007). In order to do the analysis, Mahalanobis distance (*D*) analysis was carried out using AMOS. The results showed that there were some cases that had D^2 values lower than .05 p value, which were later taken out of the data.

Homoscedasticity and Linearity: In order to check the validity of assumptions for linearity and homoscedasticity, bivarate scatterplots were used. The scatterplots among variables did not show great differences and validated the the homoscedasticity assumption. Similarly, they also showed a linear relationship between variables, which validates the linearity assumption.

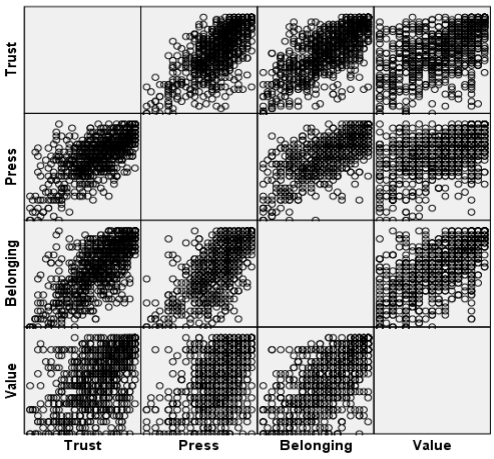

Figure 4.1 Bivariate scatterplots for the Student Academic Optimism dimensions

Multicollinearity: In order to test multicollinearity, intercorrelations among independent variables were checked by using bivariate correlations. As shown in Table 4.1, correlations among academic self-efficacy and the dimensions of student academic optimism indicate that multicollinearity assumptions is not violated since none of the correlations exceeds the critical value of .90 suggested by Field (2005).

Table 4.1

Bivariate Correlations among Student Academic Optimism Variables

	1	2	3	4
Trust in Teachers	1			
School Academic Press	.69**	1		
Belonging to School	.72**	.68**	1	
Valuing School	.50**	.46**	.65**	1

** p< .01(2-tailed)

CFA Results for Student Academic Optimism

Confirmatory Factor Analysis results showed that there was a significant chi-square value ($\chi 2$=1757.308, p=.00). The comparative fit index (CFI) value was .90 while non-normed fit index (NFI) and Tucker-Lewis Index values were .89. Finally, root mean square error of approximation (RMSEA) was found to be .80 and SRMR value was .07, which indicated a poor fit for the factor analysis (Browne & Cudeck, 1993). Since a poor fit was obtained, modification indices of errors were checked in order to find the erros that had the highest values.

The pairs ε14-ε16, ε23- ε24 and ε17- ε19 had the highest error covariances. Later, it was checked whether those items in pairs measure the same factor and it was found that all pairs belong to the same factor. After drawing covariances between the items, factor analysis was conducted again.

The second CFA results yielded better results in all indices except for the chi-squre value. The comparative fit index (CFI) value was .93 while non-normed fit index (NFI) value was .92. Also, SRMR value decreased to .06 while TLI value increased to .92, which shows that the modifications contributed to the model fit. Finally, root mean square error of approximation (RMSEA) was found to be .06, which indicated a moderate fit (Browne & Cudeck, 1993). The chi-square value was still found to be significant ($\chi 2$=1305.079, p=.00), which indicated a poor fit, however, since it is a value that is sensitive to the sample size, the study took consideration of other fit indices than chi-square value. Finally, as can be seen in the Figure 4.2, the CFA confirmed that these 4 dimensions of form a latent construct called Student Academic Optimism.

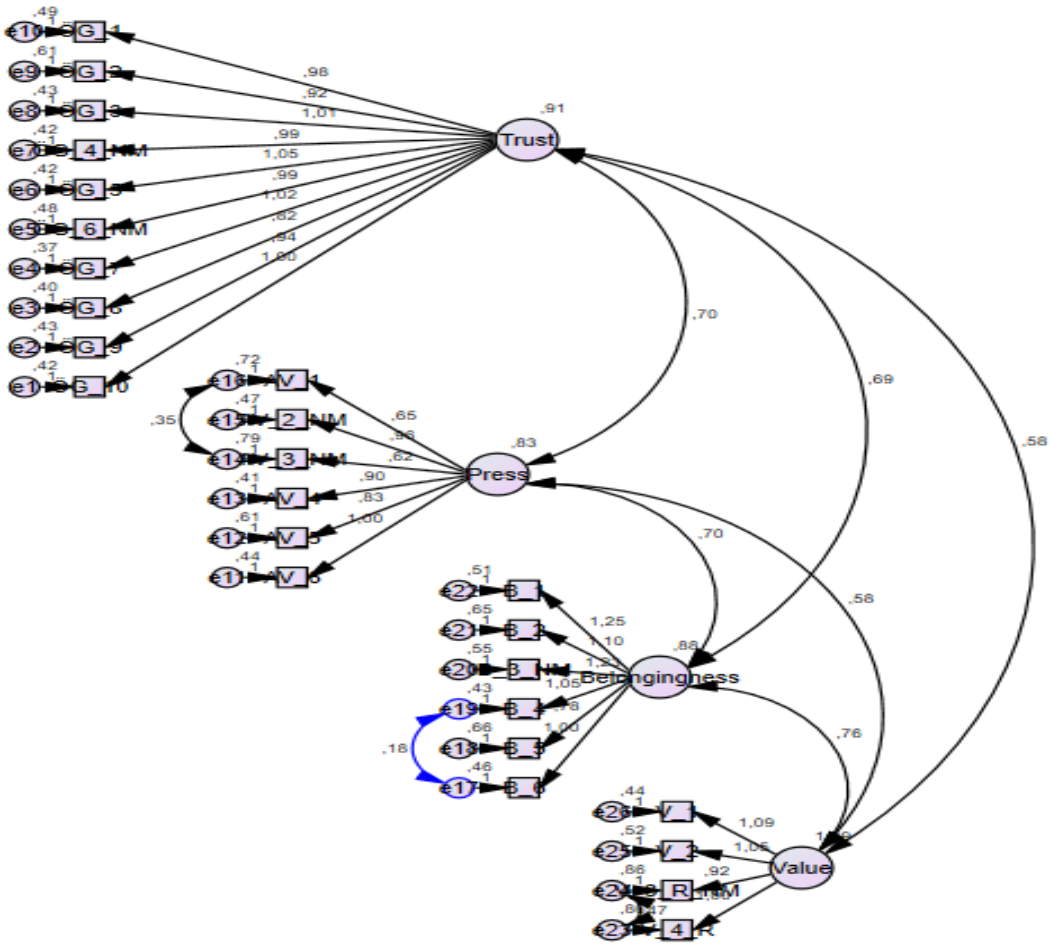

Figure 4.2 CFA results for Student Academic Optimism scale

4.2. Descriptive Results

4.2.1. Demographic Characteristics of the Participants

Table 4.2

Demographic Caharacterictics of the Participants

Variables	Category	Frequency	Percentage	Mean	SD	Min.	Max.
Gender	Male	334	43 %				
	Female	443	57 %				
Age	16	3	.4 %				
	17	582	74.9 %				
	18	179	23 %	17,26	.48	16	19
	19	13	1.7 %				
School	A	170	21.9 %				
	B	45	5.8 %				
	C	84	10.8 %				
	D	35	4.5 %				
	E	215	27.7 %				
	F	90	11.6 %				
	G	80	10.3 %				
	H	58	7.5 %				
	Total (8)	777	100 %				

The data was collected from 777 4th graders in 8 Anatolian high schools. Of the sample, 43% of the students were male and 57% was female. Also, as expected, students' age mostly accumulated within 17 and 18 years-old age groups though there were 13 19-year olds and 3 16-year olds. In terms of schools, school A and E had the highest number of students. The number of participants in school B, on the other hand, was the lowest with only 35 students.

4.2.2. Descriptive Characteristics of the Scales

4.2.2.1. Income and Other Socioeconomic Indicators

In order to identify the socioeconomic status of the students, 4 income groups were determined based on the TURKSTAT data (2017a). As presented in Table 4.3, the majority of the participants were in 1500TL-2500TL income group (34.3%) and it was followed by 2500TL-1500TL income group, which included 31.8% of the participants. The lowest and highest income groups, on the other hand, have the lowest percentage within the participants. Accordingly, it can be said that the income groups show a normal distribution.

Table 4.3

Descriptive Statistics for Income Groups

Variable	Categories	Frequency	Percentage %
Income			
	1500TL and below	104	13.4
	1500TL-2500TL	266	34.2
	2500TL-3500TL	247	31.8
	3500TL and above	160	20.6
	Total	777	100

As mentioned in the Literature Review Chapter, the studies show that parental income can be used in order to identify someone's socioeconomic status. In this study as well, although data on parental income is collected, it is also aimed to reassure income's predictability of socioeconomic background.

First of all, the participants were asked about their mother's occupation and education. In total, most of the students' mothers (69.9%) are housewives, which is followed by worker in private sector (10.2%) and government officers (6.5%). In

terms of income groups, it can be clearly seen that the job assurance goes parralel with the amount of money the family recieves. For instance, the percentage of those who work in the government increases as the income increases. Likewise, the percentage of those who work in private sector, which can be considered to have mediuem job assurance, is quite similar to the distribution of income groups.

Table 4.4

Percentages for Income Groups and Mother's Occupation

Occupation	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Housewife	87.5	80.8	67.1	43.4	69.6
Worker in private sector	1.9	9.8	14.2	10.1	10.2
Official	0	0.4	1.2	28.9	6.5
Other	10.6	9	17.5	17.6	13.7
Total	100	100	100	100	100

As for mother's education, again, there is a similar relationship between the amount of education recieved and parental income. Not surprisingly, elementary school graduates have the highest percentage in total with 40.1%, which can be relatable to the percentage of housewives as well. Moreover, the percentage of university and high school graduates increases as the income increases. Also, it can be seen that the percentage of middle school graduates within income groups shows a normal distribution. This means that middle school education stands out as the average in terms of mother's education level, and after that level, the more education mother recieves, the higher income the family gets.

Table 4.5

Percentages for Income Groups and Mother's Education

Education	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
University	0	1.5	4.9	30.2	8.3
High School	8.7	14.4	23.6	27	19.1
Middle School	20.2	27.7	27.6	20.1	25.1
Elementary School	54.8	48.5	40.7	15.7	40.1
Other	16.4	7.9	3.2	7	7.4
Total	100	100	100	100	100

Considering father's occupation, decriptive results show that the percentages of income groups in total are close to each other with worker in private sector having the highest percentage (19%). When examined in detail, it can be seen that the distribution of income groups within the occupations worker and owner in private sector are very similar while for government officials, the percentages go hand in hand with the amount of income. This can mean that unlike mother's occupation, the parental income may not be related to father's occupation. Instead, an increase in income can be attributed to the father's education.

Table 4.6

Percentages for Income Groups and Father's Occupation

Occupation	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Worker in private sector	12.1	22.2	23.7	14.4	19
Owner in private sector	10.1	15.6	21.6	16.9	17.7
Official	1	3.1	17.8	46.9	16.8
Retired	15.2	19.1	14.1	11.9	15.5
Other	61.6	40	22.8	9.9	31
Total	100	100	100	100	100

Table 4.7

Percentages for Income Groups and Father's Education

Education	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
University	0	3.1	16	52.8	17.1
High School	18.6	21.8	27.6	19.5	22.7
Middle School	16.7	32.6	23.5	11.3	23.1
Elementary School	57.8	40.2	28.4	5	31.5
Other	6.9	2.3	4.5	11.4	5.6
Total	100	100	100	100	100

In terms of father's education, elementary school graduates have the highest percentage (31.5%) among all participants. When the income groups are analyzed, it can be seen that the high school and middle school graduates have a normal distribution. However, the percentages of elementary school and university graduates within income groups are very much associated with the amount of parental income. This means that contrary to mother's education, the difference in parental income can be attibuted to father's higher education, not to the the amount of education he recieves in high or middle school.

Table 4.8

Percentages for Income Groups and Number of Children

Number of children	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
1	13.6	24.2	**31.8**	**30.3**	100
2	9.2	**31.5**	**35.6**	23.6	100
3	18.6	**37.7**	**29**	14.8	100
4	11.4	**61.4**	18.2	9.1	100
5	**37.5**	**37.5**	18.8	6.3	100
6	**66.7**	33.3	0	0	100
7	**60**	20	20	0	100
8	0	100	0	0	100
Total	100	100	100	100	100

In order to examine the relationship between number of siblings and parental income, the percentages of the number of children in the family within income groups were checked. A seen in Table 4.8, the number of children decreases as the parental income increases. Especially, the first and second lowest income groups have the highest percentages of families that have 4 or more than 4 children.

Other than family characteristics such as parents' education, the students were also asked about whether their parents own a car (Table 4.14) and whether they do extracurriculur activites for their studies (Table 4.9), have a seperate room (Table 4.10), a computer (Table 4.11) and internet connection (Table 4.13) at home, do sports (Table 4.12) and play any music instruments (Table 4.15). All these indicators that are presumedly representative in terms of parental income confirmed that the the sum of the salaries recieved by parents are associated with the resources students have, meaning that such fundamantal resources that would constribute to student achievement still depend upon parental income.

Table 4.9

Percentages for Income Groups and Extracurriculur Activities

Occupation	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	44.2	50.4	62.3	68.8	57.1
No	55.8	49.6	37.7	31.3	42.9
Total	100	100	100	100	100

Table 4.10

Percentages for Income Groups and owning a seperate room

Room	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	65.4	80.5	93.5	96.3	85.8
No	34.6	19.5	6.5	3.7	14.2
Total	100	100	100	100	100

Table 4.11

Percentages for Income Groups and owning a personal computer

Computer	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	45.2	66.5	75.3	88.1	70.9
No	54.8	33.5	24.7	11.9	29.1
Total	100	100	100	100	100

Table 4.12

Percentages for Income Groups and doing sports

Sports	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	27.9	18.8	30.8	38.1	27.8
No	72.1	81.2	69.2	61.9	72.2
Total	100	100	100	100	100

Table 4.13

Percentages for Income Groups and having internet at home

Internet	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	51	65.8	83.8	95.6	75.7
No	49	34.2	16.2	4.4	24.3
Total	100	100	100	100	100

Table 4.14

Percentages for Income Groups and having a car

Car	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	56.7	64.7	80.6	86.9	73.2
No	43.3	35.3	19.4	13.1	26.8
Total	100	100	100	100	100

Table 4.15

Percentages for Income Groups and playing and instrument

Instrument	Income Group				
	1500TL and below	1500TL-2500TL	2500TL-3500TL	3500TL and above	Total
Yes	21.2	20.7	24.3	30.6	23.9
No	77.9	78.9	75.7	69.4	76.1
Total	100	100	100	100	100

4.2.2.2 Student Academic Self-Efficacy

As one of the dimensions of general self-efficacy, students' academic self-efficacy was measured with an 8-item scale. As presented in Table 4.16, overall, students rated their efficacy level to be around the average ($\bar{X}$=3.7, *SD*=.71). Among items, item 2 had the lowest mean ($\bar{X}$=3, *SD*=1) while students agreed with item 8 at most ($\bar{X}$=4.3, *SD*=.78), which shows that students believe to be good at passing exams, however, when there are other interesting things to do, their focus stays at a medium level.

Table 4.16

Descriptive Statistics for Academic Self-Efficacy Scale

Items	Mean	SD	Not at all (%)*	Very well (%)**
Academic Self-Efficacy	3.7	.71		
How well can you get teachers to help you when you get stuck on schoolwork?	3.6	1.1	15.7	56.3
How well can you study when there are other interesting things to do?	3.0	1	27.5	26.8
How well can you study a chapter for a test?	3.5	.91	11.1	54.4
How well do you succeed in finishing all your homework every day?	3.5	1.1	17.4	53.7
How well do you succeed in finishing all your homework every day?	3.5	.94	12.4	57.1
How well do you succeed in passing all subjects?	4.1	.83	3.6	80.7
How well do you succeed in satisfying your parents with your schoolwork?	3.8	.99	9.5	66.9
How well do you succeed in passing a test?	4.3	.78	2.3	85.2

*: percentage of students who responded as 1 and 2.
**: percentage of students who responded as 4 and 5.

4.2.2.2. Student Academic Optimism

Academic optimism of students included 4 dimensions, which are Trust in Teachers (10 items), Student Academic Press (8 items), Belonging to School (6 items) and Valuing School (4 items). Students were asked to rate the items out of 5. Among all dimensions, Student Academic Press has the highest mean ($\bar{X}$=3.7, *SD*=.83), which was followed by Trust in Teachers ($\bar{X}$=3.61, *SD*=.95), Belonging to in School ($\bar{X}$=3.49, *SD*=1) and Valuing School ($\bar{X}$=3.3, *SD*=1.1).

Table 4.17

Descriptive Statistics for Trust in Teachers Dimension

Items	Mean	SD	Disagree (%)*	Agree (%)**
Trust in Teachers	3.61	.95		
Teachers are always ready to help	3.80	1.1	14.3	63.5
Teachers are easy to talk to at this school	3.77	1.1	15.4	64.3
Students are well cared for at this school	3.49	1.1	19.4	52.1
Teachers always do what they are supposed to do	3.58	1.1	17.4	55.6
Teachers at this school really listen to students	3.47	1.1	21.5	52.4
Teachers at this school are always honest with me	3.65	1.1	17.8	59.6
Teachers at this school do a terrific job	3.49	1.1	18.5	50.7
Teachers at this school are good at teaching	3.66	1.0	12.5	60.4
Students learn a lot from teachers in this school	3.53	1.1	16.7	52.5
Students at this school can depend on teachers for help	3.73	1.1	15.2	60.6

*: percentage of students who responded as “Strongly Disagree” and “Disagree”

**: percentage of students who responded as “Agree” and “Strongly Agree”

As the first dimensions, students rated their trust in teachers as between 3 and 4. The most agreed upon items, however, were about teachers being ready to help ($\bar{X}$=3.8, *SD*=.1.1) and being easy to talk to ($\bar{X}$=3.77, *SD*=1.1). Overall, the results showed that students hold trust in their teachers on a moderate level.

In terms of academic press, again it can be said that students feel moderate to high levels of academic press at school. Especially, the item 4 ($\bar{X}$=3.96, *SD*=1) and item 5 ($\bar{X}$=4.01, *SD*=1) have the highest mean scores.

Table 4.18

Descriptive Statistics for Student Academic Press Dimension

Items	Mean	SD	Disagree (%)*	Agree (%)**
Student Academic Press	3.7	.83		
Students try hard to improve	3.49	1	16.7	51.5
This school is serious about learning	3.71	1.1	13.6	61.4
Students work hard to get good grades	3.61	1	13.3	55.6
My teachers believe that I can learn	3.96	1	8.5	71.7
Good grades are recognized	4.01	1	10.3	73.9
I can get extra help at school if needed	3.45	1.1	18.1	49.2

*: percentage of students who responded as “Strongly Disagree” and “Disagree”

**: percentage of students who responded as “Agree” and “Strongly Agree”

Similar to Student Academic Press and Trust in Teachers dimensions of Student Academic Optimism, descriptive statistics for Belonging to School dimension also shows that students feel belongingness to school on a moderate level ($\bar{X}$=3.49, *SD*=1). Among all items, students mostly supported that their teachers respect them ($\bar{X}$=3.78, *SD*=1.1) and that they get along well with their peers ($\bar{X}$=3.69, *SD*=1).

Table 4.19

Descriptive Statistics for Belongings to School Dimension

Items	Mean	SD	Disagree (%)*	Agree (%)**
Belonging to School	3.49	1		
I feel proud of being part of my school	3.41	1.3	26.6	52.2
There are adults at school who are interested in me	3.15	1.3	33.1	41.7
I feel like I am a part of my school	3.3	1.3	29.3	47.1
My teachers care about me	3.65	1.1	15.7	57.7
I fit in with students at this school	3.69	1	13.4	61.5
Teachers respect me	3.78	1.1	14.4	63.1

*: percentage of students who responded as “Strongly Disagree” and “Disagree”
**: percentage of students who responded as “Agree” and “Strongly Agree”

The last dimension of Student Academic Optimism is Valuing School. As previously mentioned, this dimensions has the lowest mean and highest standard deviation among all dimensions ($\bar{X}$=3.3, *SD*=1.1). When analyzed more deeply, it can be seen that out of 4 items, 3 items stand out very suggestive in terms of demonstrating students’ views about school and curriculum. The statistics for item 1 ($\bar{X}$=2.7, *SD*=1.3) and item 3 ($\bar{X}$=3.40, *SD*=1.3) indicate that almost half of the students believe that school is not their favorite place at all (41%) and that what they

learn at school is worthless (49.2%). More importantly, more than half of the students (53.3%) believe that going to school is a waste of time ($\bar{X}$=3.49, *SD*=1.3).

Table 4.20

Descriptive Statistics for Valuing School Dimension

Items	Mean	SD	Disagree (%)*	Agree (%)**
Valuing School	3.3	1.1		
School is one of my favorite places to be	2.7	1.3	41.6	29.8
School is more important than most people think	3.56	1.3	21.5	54.9
Most of the things we learn in school are worthless	3.40	1.3	24.6	49.2
Going to school is a waste of time	3.49	1.3	24.7	53.3

*: percentage of students who responded as "Strongly Disagree" and "Disagree"
**: percentage of students who responded as "Agree" and "Strongly Agree"

Overall, the dimensions of Student Academic Optimism resemble each other in terms of the mean scores, meaning that students feel optimistic about their school and teachers on a medium level. However, Valuing School dimension clearly makes an exception. Students' ratings of the items under this dimension indicate that students have doubts about the value of their schools and the education they recieve regardless of how they percieve their teachers, and the academic and general atmosphere of the school.

4.2.2.3.Achievement

The dependent variable in this study is students' cumulative gradepoint. Therefore, students were asked to state their cGPA out of 100. As presented in Table 4.21, the average point students recieve is 79.79, which can be considered as medium to high achievement score. Also, as the passing grade determined by MoNE, the lowest cGPA was 50. Considering that middle school graduates are appointed to high schools depending on their exam results, it was expected that students in same schools would have similar gradepoints. In this study as well, except for the schools 1, 3 and 8, the ranges show that the students' cGPA do not differ greatly among participants within same school, which indicates that the limitation of using cGPA as an achievement measurement may have been overcome to some extent.

Table 4.21

Descriptive Statistics for Achievement

	Mean	SD	Min.	Max.	Range
School 1	85.89	5.5	70	98	28
School 2	90.09	4.8	78	98	20
School 3	72.06	8.6	55	98	43
School 4	82.14	7.5	65	94	29
School 5	73.49	7.6	50	100	50
School 6	78.41	8.7	60	95	35
School 7	93.31	3.4	84	100	16
School 8	70.55	9	55	98	43
Total	79.79	10.38	50	100	50

4.3. Structural Equation Modeling

4.3.1. Assumptions of SEM

Before conducting the analysis, assumptions of SEM, which includes sample size criterion, missing value analysis, univariate and multivariate normality, linearity, and homoscedasticity of residuals, and multicollinearity among the variables were checked (Tabachnick & Fidell, 2007).

As for sample size, after conducting the Confirmatory Factor Analysis (CFA) for Academic Self-Efficacy and the dimensions of Student Academic Optimism scales, there were 777 cases in total, which is anadequate number for the analysis considering Kline's suggestion of at least 200 casesto conduct SEM (2011).

Also, missing value analysis and outliers were already checked for these two scales. As for income and cGPA variables, there were no missing values and no outliers.

4.3.1.1.Univariate and Multivariate Normality

In order to check univariate normality, histograms, Q-Q plots, Skewness and Kurtosis values, and Kolmogorov-Smirnov and Shapiro-Wilk values were checked. For all variables, although Kolmogorov-Smirnov and Shapiro-Wilk test values were significant, Skewness and Kurtosis values were between -1.5 and +1.5, which suggests that the data is normally distributed. On the other hand, except for the histograms of some items in Student Academic Optimism and Self-Efficacy scales, all histograms and Q-Q plots showed a normal distribution of the data. Moreover, in order to test multivariate normality, a Mardia's test was conducted. The coefficient of multivariate kurtosis was found to be $\alpha = 132.63$, which violated the normality assumption.

4.3.1.2. Normality, Linearity and Homoscedasticity of Residuals

In order to check the validity of assumptions for normality, linearity and homoscedasticity of residuals, histograms, normal p-p plots, scatter plots, and partial

regression plots of residuals were checked. For normality assumptions, histograms and normal p-p plots were checked. As can be seen in Figure 4.3 and 4.4, it can be said that the residuals for the dependent varible are normally distributed and that the normality assumption for residuals is not violated. Also, scatterplots were used to validate homoscedasticity and linearity assumptions. It was found that there was no indicator that violates both assumptions.

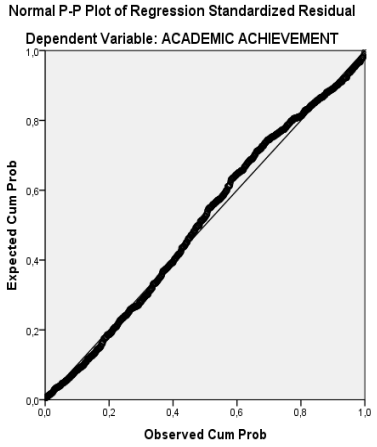

Figure 4.3. P-P plot of residuals

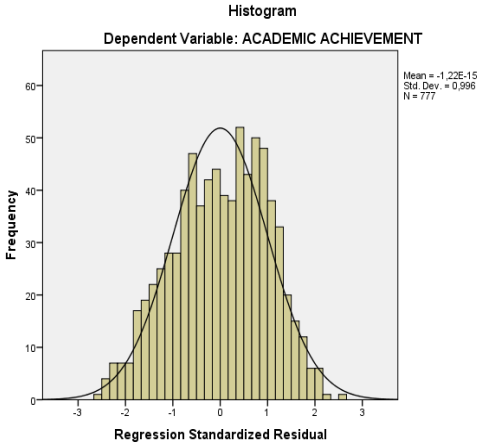

Figure 4.4. Histogram of residuals

4.3.1.3.Multicollinearity

In order to test multicollinearity, intercorrelations among independent variables were checked by using bivariate correlations. As shown in Table 4.22, most of the variables are correlated significantly. Moreover, none of the correlations exceeds the critical value of .90 suggested by Field (2005), which validates multicollinearity assumption.

Table 4.22

Bivariate Correlations among cGPA, Academic Self-Efficacy, Student Academic Optimism Variables and Income

	1	2	3	4	5	6	7
cGPA	1						
Academic Self-Efficacy	.37**	1					
Trust in Teachers	.09**	.52**	1				
School Academic Press	.20**	.47**	.69**	1			
Belonging to School	.10**	.49**	.72**	.68**	1		
Valuing School	-.05	.38**	.50**	.46**	.65**	1	
Income	.24**	.02	.10	-.01	-.05	-.11**	1

** p< .01(2-tailed)

4.3.2. Results for Structural Model

The aim of this study was to explore the relationships among students' academic self-efficacy, academic optimism, family income and cGPA. Figure 4.5 depicts the hypothesized relationships among variables. In the figure, instead of taking Student Academic Optimism as the latent variable, the dimensions are listed to better examine in detail.

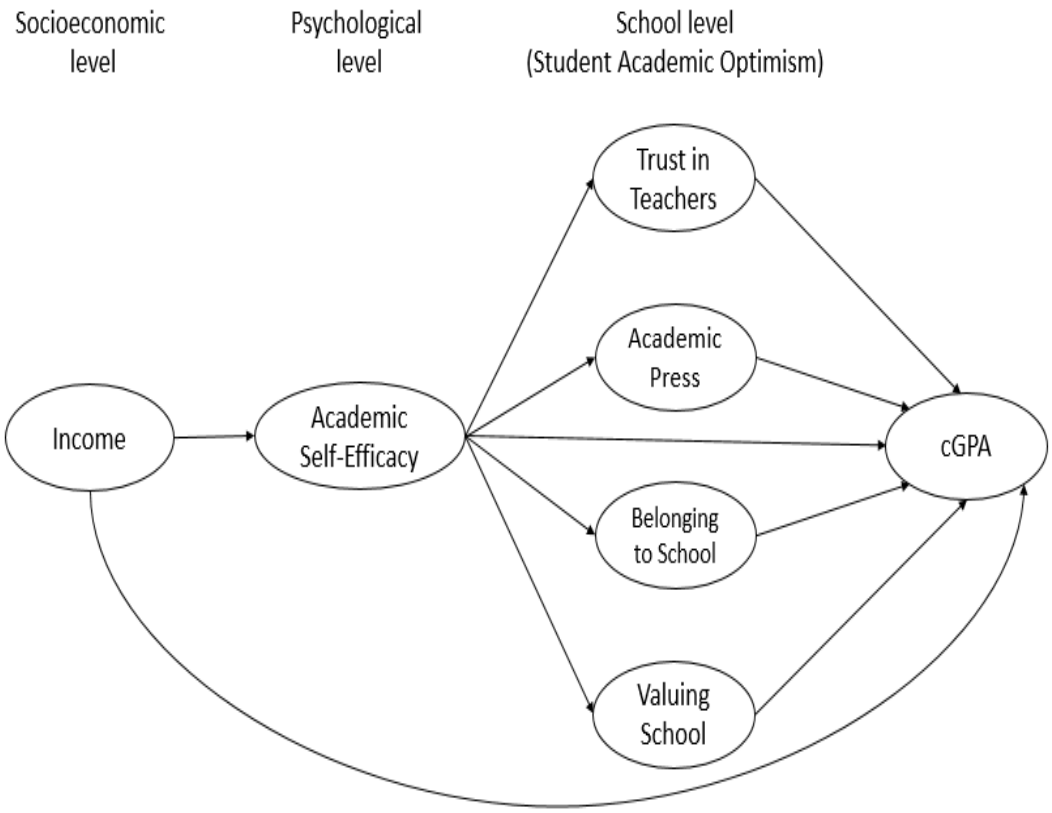

Figure 4.5. Hypothesized structural model

4.3.2.1.Results for the Hypothesized Model

The tests for the hypothesized model with 90% confidence interval showed a significant chi-square value ($\chi 2$=18223.953, p=.00). The comparative fit index (CFI) value was .84 while Tucker-Lewis Index (TLI) value was .83. Root mean square error of approximation (RMSEA) was found to be .07 and SRMR value was .12, which indicated a poor fit for the factor analysis (Browne & Cudeck, 1993). Moreover, the standardized effects for the hypothesized model were computed in order to see the non-significant paths. The results are presented in Table 4.23 and the non-significant paths are showen in Figure 4.6.

Table 4.23

Standardized Direct Effects for the Hypothesized Model

	Income	Academic Self-Efficacy	Trust in Teachers	School Academic Press	Belonging to School	Valuing School
cGPA	.17*	.67	-.25*	0.14	.07	-.28*
Academic Self-Efficacy	-	-	-	-	-	-
Trust in Teachers	-.08*	.67*	-	-	-	-
School Academic Press	-.04	.68*	-	-	-	-
Belonging to School	-.08*	.69*	-	-	-	-
Valuing School	-.14*	.52*	-	-	-	-

*p < .05.

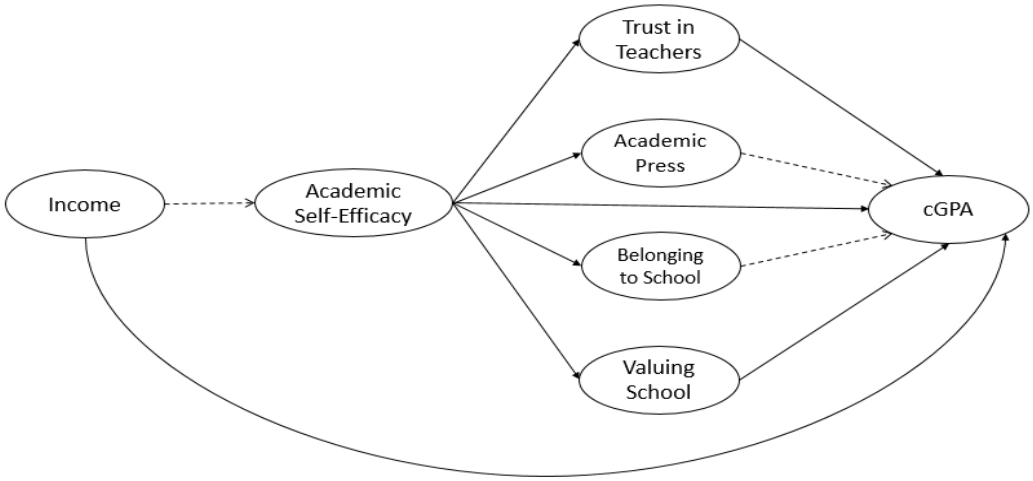

Figure 4.6. The model with significant and non-significant direct paths

After checking the standardized effect for the hypothesized model, the non-significant paths were trimmed from the model in order to test the fitness again. The second analysis with modifications, however, did not validate the hypothesized model. The results again showed a significant chi-square value ($\chi 2$=18223.953, p=.00). The CFI value increased to .87 and TLI value increased to .85. However, both stayed under the recommended value .90. RMSEA value was found to be .07 and SRMR value was .09. Overall, all values were lower than the recommended cut-off values (Bentler, 1992; Hu & Bentler, 1999) and indicated a poor fit for the model. The trimmed model with the standardized effect is depicted in Figure 4.7.

Table 4.24

Standardized Direct Effects for the Trimmed Model

	Income	Academic Self-Efficacy	Trust in Teachers	School Academic Press	Belonging to School	Valuing School
cGPA	.17*	.84*	-.33*	.06	-.07	-.34*
Academic Self-Efficacy	-	-	-	-	-	-
Trust in Teachers	-.07*	.76*	-	-	-	-
School Academic Press	-.03	.77*	-	-	-	-
Belonging to School	-.06*	.78*	-	-	-	-
Valuing School	-.14*	.64*	-	-	-	-

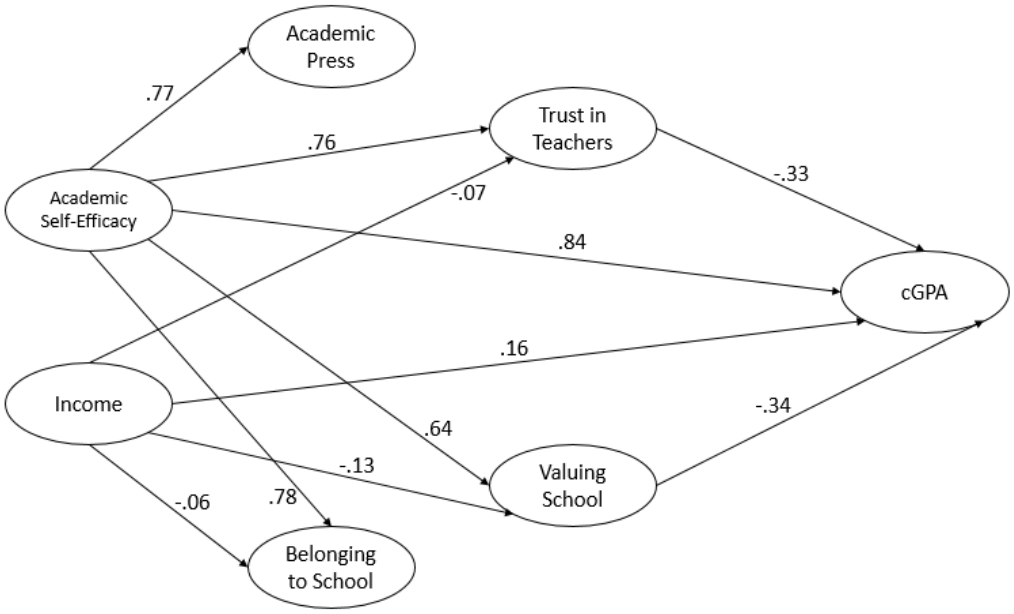

Figure 4.7. Trimmed model with standardized direct effects

In the model testing process, it was found out that the results of the analysis, even after modifications; do not show significant results to support the hypothesized model. Even so, the values of the relationships among variables can give us an idea about possible discussions. First of all, it seems that academic self-efficacy stands out as the most important predictor of achievement. On the other hand, belonging to school and academic press of school do not have any direct or indirect effect on cumulative GPA of students. Also, income, valuing school and trust in teacher variables also affect achievement directly. However, it seems that income negatively affect the effect of valuing school and trust in teacher on achievement.

In terms of the relationships among all variables other than cGPA, again academic self-efficacy is the only variable that affects all the factors of student academic optimism and the strongest predictor of all other variables. Income, at the same time, has an affect on all student academic optimism factors except for academic press of school. In addition to that, the model shows that income affect all of these factors negatively.

CHAPTER 5

DISCUSSION

In this chapter, firstly, the results of the study are discussed through making comparisons with the findings in the literature. After that, recommendations for future studies are presented.

5.1. Study Results

This study was designed as a correlational study and its main purpose was to investigate the relationships among high school students' academic self-efficacy, academic optimism, parental income and academic achievement. In order to do that, firstly Student Academic Self-Efficacy and Student Academic Optimism scales were translated into Turkish and related statistical analysis were carried out for the adaptation of the scales, which includes Exploratory Factor Analysis (EFA) for internal reliability and Confirmatory Factor Analysis (CFA) for construct validity.

Along with the main research question, in order to examine the student academic optimism variable, there was another sub-question regarding the dimensions of Student Academic Optimism scale, which was "Do student trust in teachers, student identification with school and school academic press create a latent construct called student academic optimism?". The preliminary studies for factor analysis ensured that both Academic Self-Efficacy and Student Academic Optimism scales can be utilized in Turkish context and that student academic optimism have 4-factor structure contrary to the original study. In the original study, Tschannen-Moran and her colleagues (2012) formed 3 different scales as three different dimensions of student academic optimism, which inclue trust in teachers, academic press of school

and identification with school. For the identification with school dimension, they used Identification with School Questionnaire (ISQ) by Voelkl (1996), which included items related to feelings of belongingness to school and valuing school. Considering that, CFA and EFA results in this study indicate that parallel with original studies, student academic optimism emerges as a latent construct, however, in Turkish context, students' beliefs about valuing school and belongingness are not siginifantly correlated and do not come together to form one construct. This can be an implication that students in Turkey may consider the education they recieve and school contexts as two different entities, meaning that a student who might feel belongingness towards his school as an organization may not value the education he recieves due to other reasons such as the content of the curriculum.

Another important discussion in this study was the parental income variable. This variable was not only considered as economic capital in the study, rather, it was used as a strong indicator of socioeconomic status (SES). Although it accepted that income is a respresentative index for SES (Bourdieu, 1986; Yelgün and Karaman, 2015), it was also aimed to identify to what extent parental income can predict SES and to justify and validate the use of the variable in studies related to SES. Therefore, in addition to the question regarding parental income, several questions related to other socioeconomic indicators were asked to the participants. Descriptive statistics of all other SES indicators, including parents' education and occupation, number of siblings, extracurricular activities, owing a separate room and computer etc., supported the findings in the literature that family income does indeed predict SES strongly.

Descriptive statistics in general showed that out of 5, students graded their beliefs about their academic self-efficacy, trusting teachers, academic press of school, belonging to school and valuing school to be between 3 and 4. Academic self-efficacy beliefs had the highest mean and lowest standard deviation ($\bar{X}$=3.7, *SD*=.71), which was followed by Academic Press ($\bar{X}$=3.7, *SD*=.83) and Trust in Teachers ($\bar{X}$=3.61, *SD*=.95). Belonging to School ($\bar{X}$=3.49, *SD*=1) and Valuing

School ($\bar{X}$=3.3, *SD*=1.1) variables, on the other hand, had the lowest means and highest standard deviations. Especially in terms of valuing school, almost half of the students in the study diagreed with the item "School is one of my favorite places to be." and agreed with the item "Most of the things we learn in school are worthless" while more than half of the students agreed with the item "Going to school is a waste of time". These results, therefore, can be explained as that students in general have academically moderate to high optimistic beliefs in terms of their teachers and schools' academic expectations, however, a significant number of them holds negative views about the meaningfulness and the value of what they are taught at schools. This finding also supports the EFA results for Student Academic Optimism Scale, which seperated Belonging to School and Valuing School as two different constructs in Turkish context.

Bivariate correlations among variables were also checked in order to validate the assumptins for SEM analysis. The results support the literature on the relationship between achievement, self-efficacy, income and student academic optimism dimensions. As a psychological factor, academic self-efficacy had the highest correlation with student achievement. After academic self-efficacy, family income was found to have the highest correlation with achievement. Among student academic optimism dimensions, school academic press had the highest correlation with achievement, which was followed by belonging to school and trust in teachers. Moreover, academic self-efficacy was correlated highly and significantly with all student academic optimism dimensions, which can be an implication for that students' beliefs about themselves may also shape the way they see their schools and teachers.

As for the main research question, all the relationships among the variables in the hypothesized model were tested using Structural Equation Modeling. In the first analysis, the values indicated a poor fit for the model and showed that academic press and belonging to school did not have significant effects on achievement, which was in contrast with the existing literature (Korkmaz, 2005; Fischer et al.,

2013). Similarly, income was also not correlated with self-efficacy. Therefore, some modifications have been made and the non-significant paths were trimmed from the model. Even after modifying the model, the results did not show significant values and did not validate the hypothesized model. This may be due to several reasons.

Firstly, in this study, the dependent variable was student achievement. In order to gather data on achievement, students were asked to state their cumulative grade point average of the previous semester. One possible problem related to that could be ensuring that students stated their cGPAs correctly. In order to get over this, in the data entry process, the grade averages of the students were checked by the researcher to see whether there are notable differences among students in the same school. In Turkey, after middle school, students take a high school entrance exam and are placed in school according to their grades in those exams. Therefore, it is expected that students in the same schools would have similar grades.

The second possible problem related to the dependent variable can be the way achievement is measured. As stated earlier, the gradepoints that students get from school exams were taken as the achievement measure in this study. However, as mentioned in the Limitations section of Methodology chapter, achievement can be measured in other ways such as exams carried out by the state or international institutions such as OECD. The exams in schools are prepared by the teachers in those school, which means that there would be differences among the type and the content of exams, questions asked and the evaluation techniques a teacher or a school uses. Therefore, the cGPAs scores in the data may not be representative enough to analyze the model more in detail to get more clear and reliable results. Parallel with that, the descriptive statistics showed that the mean cGPA value was almost 79.90 out of 100, which indicates a high achievement level. Taking into account that Turkey stays far behind other countries in PISA exams (OECD, 2014; 2016), such finding is surprising and it can be explained by the fact that school exams may not be reliable for such analysis as mentioned. On the other hand, Sarıer (2010) suggests that both middle/high school entrance and exams and PISA results

indicate that there are significant differences among regions in Turkey in terms of achievement and that Marmara and Aegean regions are the most successful. Therefore, considering that the data of this study was collected from Manisa, which is a city in Aegean region, it can also be argued a high score in achievement mean would not be unexpected.

Moreover, in this study, the results imply that school-related variables fail to have a significant impact on student achievement. In contrary to the existing literature that demonstrates that students' beliefs about school are associated with their achievement (Kwong and Davis, 2015; Bahçetepe & Giorgetti, 2015; Ali and Siddiqui, 2016; Karadağ, İşçi, Öztekin & Anar, 2016; Polatlı & Abaslı, 2018), the findings of this study makes it questionable. However, instead of considering the whole school effectiveness literature as open to dispute, it is more reasonable to question the predictability and applicability of Student Academic Optimism as one latent construct in Turkish context. The findings of this study approve that Trust in Teachers, School Academic Press, Belonging to School and Valuing School variables come together to form one construct. However, in terms of the impacts on student achievement, some dimensions come out as insignificant predictors while the other dimensions seem to have significant correlations. This, overall, may point to the discussion that Berkowitz et al. (2017) present in their review study of the relationships among SES, school climate and achievement. In their study, authors found that there is much variation among the ways school climate and its measures are defined, which makes it difficult to explicitly talk about a relationship. Accordingly, in this study, school climate was defined and measured by the conceptualization of Hoy (2012) and Tschannen-Moran et al. (2013). The results of the current study, therefore, may imply that such conceptualization of school climate and its measures may not be relevant to either student level variables or Turkish context.

More specifically, the results showed that trust in teacher and valuing school have an impact on achievement, however, belonging to school and academic press

dimensions of student academic optimism failed to do so. Although school climate studies refer to a positive relationship between these concepts and achievement (Hoy, Hannum & Tschannen-Moran, 1998; Sherblom, Marshall & Sherblom, 2006; Uline & Tschannen-Moran, 2008; Bahçetepe & Giorgetti, 2015; Karadağ, İşçi, Öztekin & Anar, 2016), such contradicting results can also be supported by some studies in the literature. Lee (2012), for instance, showed that academic press does not affect achievement directly but through teacher-student relationship. Similarly, Gillen-O'Neel and Fuligni (2013) found that belonging to school was not a significant predictor of student achievement but siginificantly correlated with value of school, which is also parallel with the current study. Overall, the study's findings regarding the school climate and achievement can suggest that when we try to analyze the influence of school climate on achievement, rather than bringing several indicators together as one latent contruct, it may be more explanatory and effective to examine the relationships through paths and models along with direct and indirect relationships.

Furthermore, the results of the study did not support the hypothesized model that assumes that family income, student academic self-efficacy and the dimensions of student academic optimism would have an impact on academic achievement. Despite that, the findings showed that academic self-efficacy beliefs as the psychological variable still stands out as the strongest factor in student achievement, which is consistent with previous findings that show a significant impact of academic self-efficacy on achievement (Bandura, 1977; Zimmerman and et al., 1992; Arslan, 2016). It shows that rather than school environment and family background, students' beliefs about their capabilities to achieve holds make a bigger difference in student success (Usher & Pajares, 2008).

Lastly, the results also revealed that income was found to be a not that strong predictor, which is contradicting the literature (Yelgün and Karaman, 2015; Aslanargun, Bozkurt & Sarıoğlu; 2016|). However, in their extensive literature review studies, both White (1982) and Sirin (2005) point to that the relationship

between SES and achievement is a positive yet a weak one. And it was even found that there has been a decrease in the correlation. Considering that, the study showed similar results and put forward that similar to these studies, there also may have been a decrease in Turkish context as well.

5.2. Implications for Practice

Although it was not the main research question of the study, one important point to refer to was whether income correlates with other socioeconomic status indicators presented in the literature and reports (Becker, 1964, pp. 22; Bourdieu, 1986; Roscigno and Ainsworth-Darnell, 1999; Akbaba Altun & Çatan, 2008; Çiftçi & Çağlar, 2014, TURKSTAT, 2017b). The descriptive results of this study showed that as the income of the family increases, parents' education level increases. This also goes parallel with parents' occupation. In addition to that, the number of children in the family lessens as the income increases. In terms of other indicators such as extracurricular activities, owning a computer etc., children from high income families are in great advantage. Such finding may be suggestive for school and policy makers in Ministry of National Education to develop policies in order to fill the recourse gap between income groups. This might include resources for technology use and internet, and especially activities that would increase students' cultural capital. Correspondingly, for education reforms, Mcdill, Natriello and Pallas (1986) as well suggest that though raising academic expectations may increase achievement, additional support should be provided for students and especially for those from low SES.

Another implication could be related to the finding that rather than income and school-related factors, students' academic self-efficacy has the strongest effect on both achievement and students' academic optimism, which means that self-efficacy is also effective in shaping students' views about their school and teachers as well as their achievement. Therefore, instead of focusing on collective student beliefs that

affect success, this could direct our attention to individual differences among students when we are trying to find solutions to increase student achievement. In this case, schools, and especially the teachers, can consider cooperating with the families of the students that are believed to have low self-efficacy (Bandura et al., 1996). In this manner, Kuru Cetin and Taskin (2016) also suggest that although parents with higher socioeconomic status are more willing to cooperate with schools, the interaction between schools and parents regardless of which SES they belong to is not at a desired level in public schools in Turkey and that parent involvement procedures should be systematized.

5.2. Recommendations for Further Studies

In this study, the hypothesized model was not validated and supported by the analysis results. Therefore, the most important recommendation for further studies presented here would be investigating such models that include psychological (self-efficacy), economic (income) and psychosocial (optimism) variables with different samples through using different statistical methods. Having such multifaceted models makes it possible to reveal to what extent various factors can predict the dependent variable when other independent variables are included.

Also, in this study, Student Academic Optimism construct, which was developed by researchers in the US, failed to predict student achievement with its all dimensions in Turkish context. Especially, academic press of school and belonging to school variables did not significantly affect achievement. Therefore, more studies are needed in order to discuss the applicability of Student Academic Optimism and its dimensions.

Moreoever, even when we consider Student Academic Optimism dimensions seperately as school-related factors within bivariate correlations, the correlations of trust in teachers, academic press, belonging to school and valuing school variables with achievement appeared to be quite lower than income and especially academic

self-efficacy factors. This can imply two important points. First of all, as mentioned in the literature review, school climate studies that include student views are still low in number and seem to be insufficient especially in Turkish context. Therefore, it is recommended that more research be done on student's beliefs about school-related factors and views of school and school climate. Secondly, instead of adapting concepts frrom international literature on school climate studies and utilizing related scales in Turkish context, more qualitate research can be done in order firstly to identify the elements that exist in schools in Turkey and then reinterprete the conceptualization of agents that can be associated with student achievement. Therefore, in terms of school climate/culture studies, it is required to investigate what is unique and different about the schools, managers, teachers and students in Turkey.

Another finding that draws attention in the study is descriptive results of Valuing School scale. Among all other dimensions of Student Academic Optimism, valuing school dimension had the lowest mean. However, among the items of the scale, almost half of the student believes that what they are taught in school is worthless and that going to school is a waste of time. Such finding implies that students do not value the education they recieve and question the curriculum. For researchers in both educational administration and curriculum and instruction fields, student trust in curriculum or education in general can also be a matter to investigate and analyze. Bandura et al., (1996) showed that parental value of education through self-efficacy has a higher impact on student achievement than income. From this point of view, it can be suggested that the concept of valuing school may not be an element of school context but a family-related factor. Therefore, further studies may also include the parental view as well as student view while examining valuing school factor.

REFERENCES

Adams, C. M. & Forsyth, P. B. (2009). Conceptualizing and validating a measure of student trust. In Hoy, W. K. & DiPaola, M. (Eds.), *Studies in school improvement* (pp. 263-279). Charlotte, NC: Information Age Publishing.

Adams, C. M. & Forsyth, P. B. (2011). *Student academic optimism: confirming a construct*. Paper presented at the 2011 Annual Meeting of the American Educational Research Association, New Orleans, LA. Retrieved from http://www.aera.net/Publications/Online-Paper-Repository

Adams, C. M. & Forsyth, P. B. (2013). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *The Elementary School Journal, 114*(1), 1-21. https://doi.org/10.1108/09578239810211518

Adams, C. M. & Jordan, K. M., Miskell, R. C. & Fosyth, P. B. (2016). Self-regulatory climate: a positive attribute of public schools. *The Journal of Educational Research, 109*(2), 169-180. http://dx.doi.org/10.1080/00220671.2014.934419

Akbaba Altun, S. & Çakan, M. (2008). Factors affecting student success on exams: The case of successful cities on LGS/ÖSS exams. *Elementary Education Online, 7*(71), 157-173. Retrieved from http://dergipark.ulakbim.gov.tr/ilkonline/article/viewFile/5000038275/5000037132

Ali, Z. & Siddiqui, M. (2016). School climate: learning environment as a predictor of student's academic achievement. *Journal of Research and Reflections in Education, 10*(1), 104-115.

Allen, K., & Bowles, T. (2012). Belonging as guiding principle in the education of adolescents. *Australian Journal of Educational andDevelopmental Psychology, 12*, 108-119. Retrieved from https://www.newcastle.edu.au/__data/assets/pdf_file/0016/100267/V12_allen_-and-_bowles.pdf

Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J. & Waters, L. (2018). What schools need to know about gostering school belonging: a meta-analysis. *Educational Psychology Review, 30*, 1-34. http://dx.doi.org/10.1007/s10648-016-9389-8

Altınsoy, F. & Eryılmaz, A. (2017). School belonging in adolescence: relationships with life goals and attachment patterns. *International Online Journal of*

Educational Sciences, 9(4), 1038-1051. https://doi.org/10.15345/iojes.2017.04.011

Altun, F. & Yazıcı, H. (2013). Ergenlerin benlik algılarının yordayıcılaro olarak: akademik öz-yeterlik inancı ve akademik başarı. *Kastamonu Eğitim Dergisi, 21*(1), 145-156. Retrieved from http://www.kefdergi.com/pdf/21_1/21_1_10.pdf

Anderson, C. (1982). The search for school climate: a review of the research. *Review of Educational Research, 52*(3), 368-420.

Arslan, A. (2013). Investigation of relationship between sources of self-efficact beliefs of secondry school students and some variables. *Educational Sciences: Theory and Practice*, *13*(4), 1983-1993. http://dx.doi.org/10.12738/estp.2013.4.1753

Arslan, G. (2016). Relationship between sense of rejection, academic achievement, academic efficacy, and educational purpose in high school students. *Education and Science, 41*, 293-304. http://dx.doi.org/10.15390/EB.2016.5562

Aslanargun, E., Bozkurt, S. & Sarıoğlu, S. (2016). Sosyo ekonomik değişkenlerin öğrencilerin akademiş başarısı üzerine etkisi. *Uşak Üniversites Sosyal Bilimler Dergisi, 9*(3), 214-234. http://dx.doi.org/10.12738/estp.2013.4.1753

Aydın, A., Sarıer, Y., & Uysal, Ş. (2016). Sosyoekonomik ve sosyokültürel değişkenler açısından PISA matematik sonuçlarının karşılaştırılması. *Eğitim ve Bilim, 37*(164), 20-30. Retrieved from http://egitimvebilim.ted.org.tr/index.php/EB/article/view/219/360

Bağcı, S. Ç. (2017). Lise öğrencilerinde akademik ve üniversite sınavına yönelik öz-yeterliğin yordayıcıları. *Insan ve Toplum Bilimler Araştırmaları Dergisi, 6*(4), 129-151. Retrieved from http://www.itobiad.com/download/article-file/341750

Bahçetepe, Ü., & Giorgetti, F. M. (2015). Akademik başarı ile okul iklimi arasındaki ilişki. *Istanbul Journal of Innovation in Education, 1*(3), 83-101.

Bakan Kalaycıoğlu, D. (2015). The influence of socioeconomic status, self-efficacy, and anxiety on mathematics achievement in England, Greece, Hong Kong, the Netherlands Turkey and the USA. *Educational Sciences: Theory and Practice, 15*(5), 1391-1401. http://dx.doi.org/10.12738/estp.2015.5.2731

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191-215.

Bandura, A. (1981). Self-referrent though: a developmental analysisof self-efficacy. In J. H. Flavell & L. Ross (Eds.), *Social cognitive development: Frontiersand possible futures.* (pp. 200-239). Cambridge: Cambridge University Press.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *Developmental Psychology, 37*(2), 122-147. http://dx.doi.org/10.1037/0003-066X.37.2.122

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175-1184. Retrieved from https://www.uky.edu/~eushe2/Bandura/Bandura1989AP.pdf

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67,* 1206-1222. http://dx.doi.org/10.1111/j.1467-8624.1996.tb01791.x

Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology, 76*(2), 258-269. http://dx.doi.org/10.1037/0022-3514.76.2.258

Baştuğ, M. & Keskin, H. (2012). Akıcı okuma becerileri ile anlama düzeyleri (basit ve çıkarımsal) arasındaki ilişki. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi, 13*(3), 227-244. Retrieved from http://dergipark.ulakbim.gov.tr/aeukefd/article/view/5000086903/5000080832

Battistich, V., Solomon, D., Kim, D., Watson, M. & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal, 32*(3), 627 – 658.

Beard, K. S., Hoy, W. K. & Woolfolk Hoy, A. (2010). Academic optimism of individual teacher: confirming a new construct. *Teaching and Teacher Education, 26*(5), 1136 -1144. https://doi:10.1016/j.tate.2010.02.003

Becker, G., (1964). *Human capital* (2nd. ed.). New York: Columbia University Press.

Hu, L. T., & Bentler, T. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55.

Berkowitz, R., Moore, H., Astor, R. A. & Benbenishty, R. (2017). A research synthesis of the associations between socioeconomic background, inequality, school climate,and academic achievement. *Review of Educational Research, 87*(2), 425-469. https://doi:10.3102/0034654316669821

Bilge, F., Tuzgöl Dost, M. & Çetin, B. (2014). Factors affecting burnout and school engagement among high school students: study habits, self-efficacy, and academic success. *Educational Sciences: Theory and Practice, 14*(5), 1721-1727. http://dx.doi.org/10.12738/estp.2014.5.1727

Bourdieu, P. (1986). The Forms of capital. In J. G. Richardson (Eds.), *Handbook of theory and research for the sociology of education* (pp. 241-258). Westport: Greenwood Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.

Bryant, E. C., Glazer, E., Hansen, M. A., & Kirsch, A. (1974*). Associations between educational outcomes and background variables: a review of selected literature*. Denver, Colo.: National Assessment of Educational Progress.

Bryk, A. S., & Schneider, B. L. (2002). *Trust in schools: A core resource for improvement*. New York, NY: Russell Sage Foundation Publications.

Buluç, B. (2008). Ortaöğretim okullarında örgütsel sağlık ile örgütsel vatandaşlık davranışları arasındaki ilişki. *Türk Eğitim Bilimleri Dergisi, 6*(4), 571-602. Retrieved from http://dergipark.gov.tr/download/article-file/256300

Carroll, A., Houghton, S., Wood, R., Unsworth, K., Hattie, J., Gordon, L. & Bower, J. (2009). Self-efficacy and academic achievement in Australian high school students: The mediating effects of academic aspirations and delinquency. *Journal of Adolescence, 32*(4), 797–817. http://dx.doi.org/10.1016/j.adolescence.2008.10.009

Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record, 111*(1), 180–213.

Coleman, J. S. (1988). Social capital in the creation og human capital. *American Journal of Sociology, 94*, 95–120. Retrieved from

https://faculty.washington.edu/matsueda/courses/587/readings/Coleman%201988.pdf

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F. D., & York, R. L. (1966). *Equality of educational opportunity*. Washington, DC: US Government Printing Office.

Corrigan, M. W., Klein, T. J. & Isaacs, T. (2010). Trust us: documenting the relationship of students' trust in teachers to cognition, character, and climate. *Journal of Research in Character Education, 8*(2), 61–73.

Cybulski, T. G., Hoy, W. K. & Sweetland, S. R. (2005). The roles of collective efficacy of teachers and fiscal efficacy in student achievement. *Journal of Educational Administration, 10,* 439-461. https://doi.org/10.1108/09578230510615224

Çalık, T., & Kurt, T. (2010). Development of school climate scale. *Education and Science, 35*(157) 157, 167-180.

Çelikkaleli, O. & Gündüz, B., (2010). Ergenlerde problem çözme becerileri ve yetkinlik inançları. *Ç. Ü. Sosyal Bilimler Enstitsü Dergisi, 19*(2), 361-377. Retrieved from http://dergipark.gov.tr/download/article-file/50608

Çelikkaleli, O., Gündoğdu, M. & Kıran Esen, B. (2006). Ergenlerde problem çözme becerileri ve yetkinlik inançları. *Eurosean Journal of Educational Research, 25,* 62-72. Retrieved from http://apbs.mersin.edu.tr/files/gundogdu/Publications_002.pdf

Çelikkol, Ö. & Avcı, N. (2017), Aile gelir düzeyi bağlamında liselere erişimde eğitimsel eşitsizlik alanların araştırılması (Isparta il merkezi örneği). Bilge Uluslararası Sosyal Araştırmalar Dergisi, 1(2), 165-183. Retrieved from http://dergipark.gov.tr/download/article-file/400162

Çiftçi, C., & Çağlar, Ç. (2014). Ailelerin sosyo-ekonomik özelliklerinin öğrenci başarısı üzerindeki etkisi: Fakirlik kader midir?. *International Journal of Human Sciences, 11*(2), 155-175. https://doi.org/10.14687/ijhs.v11i2.2914

Doğan, S. (2012). Lise öğrencilerinin okul iklimi algıları. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 10,* 55-92. http://dx.doi.org/10.14520/adyusbd.286

Duncan, O. D. (2011). A socioeconomic index for all occupations. In A. J. Reiss, O D. Duncan, P. K. Hatt & C. C. North (Eds.), *Occupations and social status* (pp. 109-138). New York: Free Press.

Duncan, G. J., Morris, P. A. & Rodriguez, C. (2011). Does money really matter? Estimating impacts of family income on young children'sachievement with data from random-assignment experiments. *Developmental Psychology, 47*(5), 1263-1279. http://dx.doi.org/10.1037/a0023875

Ebrar Yetkiner Özel, Z., Özel, S. & Thompson, B. (2013). SES-related mathematics achievement gap ,n Turkey compared to European Union countries. *Education and Sciences, 38*(170), 179-193. Retrieved from http://egitimvebilim.ted.org.tr/index.php/EB/article/viewFile/1689/554

Elstad, J. & Bakken, A. (2015). The effects of parental income on Norwegian adolescents' school grades: A sibling analysis. *Acta Sociologica, 63*(3), 265-282, http://dx.doi.org/10.1177/0001699315594411

Erdogan, C. (2016). Analysis on the relationship between trust culture and prejudices in primary schools. *Eurasian Journal of Educational Research, 63*, 153-168. http://dx.doi.org/10.14689/ejer.2016.63.9

Erkan, S. (2011). Farklı sosyoekonomik düzeydeki ilköğretim öğrencilerinin okula hazır bulunuşluklarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi, 40*, 186-197. Retrieved from http://dergipark.ulakbim.gov.tr/hunefd/article/view/5000048283/5000045604

Fan, W., Williams, C. M., & Corkin, D. M. (2011). A multilevel analysis of student perceptions of school climate: The effect of social and academic risk factors. *Psychology in the Schools, 48*(6), 632-647. http://dx.doi.org/10.1002/pits.20579

Fancera, S. F. & Bliss, J. R. (2011). Instructional leadership influence on collective teacher efficacy to improve school achievement. *Leadership and Policy in Schools, 10*, 349-370. https://doi.org/10.1080/15700763.2011.585537

Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage Publications.

Finn, J. D. & Voekl, K. (1993). School climate as a factor in student adjustment and achievement. *Journal of Negro Education, 62*(3), 249-268.

Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research, 59*(2), 117-142.

Fischer, C., Bol, L., Pribesh, S. & Nunnery, J. (2013). Where is the learning in smaller learning communities? Academic press, social support for learning, and academic engagement in smaller learning community classrooms. *Journal of Education for Students Placed at Risk (JESPAR), 18*(3-4), 177-192. https://doi.org/10.1080/10824669.2013.811569

Flemmen, M., Jarness, V., & Rosenlund, L. (2018). Socialspace and cultural class divisions: The forms of capital and contemporary lifestyle differentiation. The *British Journal of Sociology, 69*(1*)*, 124-153. https://doi.org/10.1111/1468-4446.12295

Forsyth, P. B., Barnes, L. L. B. & Adams, C. M. (2006). Trust effectiveness patterns in schools. *Journal of Educational Administration, 44*(2), 122-41. https://doi.org/10.1108/09578230610652024

Fraenkel, J. R., Wallen, N. E., & Hyun, H. (2012). *How to design and evaluate research in education* (8th ed.). New York, NY: McGraw-Hill.

Gillen-O'Neel, C. & Fuligni, A. (2013). A longitudinal study of school belonging and academic motivation across high school. *Child Development, 84*(2), 678-692. https://doi.org/10.1111/j.1467-8624.2012.01862.x

Goddard, R. D. (2001). Collective efficacy: a neglected construct in the study of schools and student achievement. *Journal of Educational Psychology, 93*(3), 467-476. https://doi.org/10.1037//0022-0663.93.3.467

Goddard, R. D., Goddard, Y., Kim, E. S. & Miller, R (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective efficacy beliefs in support of student learning. *American Journal of Education, 121*(4), 501-530.

Goddard, R. D., Hoy, W. K. & Woolfolk Hoy, A. (2000). Collective teacher efficacy: its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2), 479-507. https://doi.org/10.1177/0895904804265066

Goddard, R. D., LoGerfo, L. & Hoy, W. K (2004). High school accountability: the role of percieved collective efficacy. *Educational Policy, 18*(3), 403-425.

Goddard, R. D., Salloum, S. J. & Berebitsky, D. (2009). Trust as a mediator of the relationships between povert, racial composition, and academic achievement. *Educational Administration Quarterly, 45*(2), 292-311. https://doi.org/10.1177/0013161X08330503

Goddard, R. D., Skrla, L. & Salloum, S. J. (2017). The role of collective efficacy in closing student achievement gaps: a mixed methods study of school leadership for excellence and equity. *Journal of Education for Students Placed at Risk (JESPAR), 22*(4), 220-236. https://doi.org/10.1080/10824669.2017.1348900

Goddard, R. D., Sweetland, S. & Hoy, W. K. (2000). Academic emphasis of urban elementary schools and student achievementin reading and mathematics:a

multilevel analysis. *Educational Administration Quarterly*, *36*(5), 683-702. https://doi.org/10.1177/00131610021969164

Goddard, R. D., Tschannen-Moran, M. & Hoy, W. (2001). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *The Elementary School Journal, 102*(1), 3-17. https://doi.org/10.1108/09578239810211518

Griffin, C. B., Cooper, S. M., Metzger, I. W., Golden, A. R. & White, N. (2017). School racial climate and the academic achievement of african american high school students: The mediating role of engagement. *Psychology in Schools, 54*(7), 673-688. https://doi:10.1002/pits.22026

Gündüz, B., & Çelikkaleli, O. (2009). The role of academic efficacy belief, peer pressure and trait anxiety on adolescent aggressiveness. *Inonu University Journal of the Faculty of Education, 10*(2), 19-38. Retrieved from http://dergipark.gov.tr/download/article-file/92299

Gürol, M. & Kerimgil, S. (2010). Academic optimism. *Procedia-Social and Behavioral Sciences, 9,* 929-932. https://doi.org/10.1016/j.sbspro.2010.12.261

Güvendir, M. (2014). Öğrenci başarılarının belirlenmesi sınavında öğrenci ve okul özelliklerinin Türkçe başarısı ile ilişkisi. *Eğitim ve Bilim, 39*(172), 163-180. Retrieved from http://eb.ted.org.tr/index.php/EB/article/viewFile/2839/614

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed). Upper Saddle River, NJ: Pearson Education.

Halpin, A. W., & Croft, D. B. (1963). *The organizational climate of schools.* Chicago, IL: Midwest Administration Center.

Hampton, N. Z. & Mason, E. (2003). Learning diabilities, gender, sources of efficacy, self-efficacy beliefs, and academic achivement in high school students. *Journal of School Psychology, 41*, 101-112. https://doi.org/10.1016/S0022-4405(03)00028-1

Haveman, R. & Wolfe, B. (1995). The determinants of children's attainments: findings and review of method. *Journal of Economic Literature, 33*(4), 1829-1878. Retrieved from https://www.jstor.org/stable/pdf/2729315.pdf?refreqid=excelsior%3Ac0c9f7f57e025520e3a8d9789ead6fa3

Haynes, N. M., Emmons, C. & Ben-Avie, M. (1997). School climate as a factor in student adjustment and achievement. *Journal of Educational and Psychological Consultation, 81*, 321-329.

Heizmann, B. & Böhnke, P. (2016). Migrant poverty and social capital: The impact of intra- and interthnic contacts. *Research in Social Stratificaation and Mobility, 46,* 73-85. http://dx.doi.org/10.1016/j.rssm.2016.08.006

Hong, F. (2017). Antecedent and consequence of school academic optimism and teachers' academic optimism model. *Educational Studies, 43*(2), 165-185. https://doi:10.1080/03055698.2016.1248902

Hoover-Dempsey, K., Bassler, O. C. & Brissie, J.S. (1987). Parent involvement: contributions of teacher efficacy, school socioeconomic status, and other school characteristics. *American Educational Research Journal, 24*(3), 417-435. https://doi.org/10.2307/1163118

Hoover-Dempsey, K., Bassler, O. C. & Brissie, J.S. (1992). Explorations in parent-school relations. *The Journal of Educational Research, 85*(5), 287-294. https://doi.org/10.1080/00220671.1992.9941128

Hoy, W. K. & Feldman, J. (1987). Organizational health: the concept and its measure. *Journal of Research and Development in Education, 20*(4), 30-7.

Hoy, W. K. (1972). Dimensions of student alienation and characteristics of public schools. *Interchange, 3*(4), 38-52. https://doi.org/10.1007/BF02145406

Hoy, W. K. (2012). School characteristics that make a difference for the achievement of all children: a 40-year odyssey. *Journal of Educational Administration, 50*(1), 76-97. https://doi.org/10.1108/09578231211196078

Hoy, W. K., & Miskel, C. G. (2001). *Educational administration: Theory, research, and practice* (6th ed.). New York: McGraw Hill.

Hoy, W. K., Smith, P. A. & Sweetland, S. R. (2003). The development of the organizational climate index for high schools: its measure and relationship to faculty trust. *The High School Journal, 86*(2), 38-49.

Hoy, W. K., Sweetland, S. R. & Smith, P. A. (2002). Toward an organizational model of achievement in high schools: the significance of collective efficacy. *Educational Administration Quarterly, 38*(1), 77-39. http://doi.org/10.1177/0013161X02381004

Hoy, W. K., Tarter, C. J., & Woolfolk Hoy, A. (2006). Academic optimism of schools: a force for student achievement. *American Educational Research Journal, 43*(3), 425-446. http://doi.org/10.3102/00028312043003425

Hoy, W. K., Tarter, C.J. & Kottkamp, R. B. (1991). *Open schools/healthy schools.* Beverly Hills, CA: Sage Publications.

Hoy, W.K. and Hannum, J.W. (1997). Middle school climate: an empirical assessment of organizational health, and student achievement. *Educational Administration Quarterly, 33*(3), 290-311.

Hoy, W.K., & Tschannen-Moran, M. (1999). Five facets of trust: an empirical confirmation in urban elementary schools. *Journal of School Leadership, 9*, 184-208.

Hoy, W.K., Hannum, J. & Tschannen-Moran, M. (1998). Organizational climate and student achievement: a parsimonious and longitudinal view. J*ournal of School Leadership, 8*(4), 336-359.

Hsieh, C.C., Yen, H.C. & Kuan, L.Y. (2014). The relationship among principals' technology leadership, teaching ınnovation, and students' academic optimism in elementary schools. Paper presented at the International Conferences on Educatıonal Technologies (ICEDUTECH 2014) and Sustainability, Technology and Educatıon 2014 (STE 2014), New Taipei City, Taiwan. Retrieved from https://files.eric.ed.gov/fulltext/ED557326.pdf

Iyer, A., Zhang, A., Jetten, J., Hao, Z. & Cui, L. (2017). The promise of a better group future: Cognitive alternatives increase students' self-efficacy and academic performance. *British Journal of Social Psychology, 56*(4), 750-765. http://doi.org/10.1111/bjso.12201

Jiang, Y., Song, J., Lee, M & Bong, M. (2014). Self-efficacy and achievement goals as motivational links between perceived contexts and achievement. *Educational Psychology, 34*(1), 92-117. https://doi.org/10.1080/01443410.2013.863831

Johnstonbaugh, M. (2017). Conquering with capital: social, cultural, and economic capital's role in combating socioeconomic disadvantage and contributing to educational attainment. *Journal of Youth Studies, 21*(5), 590-606. https://doi.org/10.1080/13676261.2017.1406069

Jonson-Reid, M., Davis, L., Jeanne, S., Williams,T. & Williams, J. H. (2005). Academic self-efficacy among african american youths: Implications for school social work practice. *Children and Schools, 27*(1), 5-14. Retrieved from https://pdfs.semanticscholar.org/5782/4da10e389109ca7a52a95d68db51156751d0.pdf

Kalender, I. & Berberoğlu, G. (2009). An assessment of factors related to science achievement of Turkish students. *International Journal of Science Education, 31*(10), 1379-1394. https://doi.org/10.1080/09500690801992888

Kalender, I. (2015). An analysis of the resilient students' profile based on PISA 2012. *Journal of Measurement and Evaluation in Education and Psychology, 6*(1), 158-172. http://dx.doi.org/10.21031/epod.16925

Karadağ, E., İşçi, S., Öztekin, Ö. & Anar, S. (2016). The relationship between schoolclimate and student's academic achievement: a meta-analysis study. *İnönü University Journal of the Faculty of Education, 17*(2), 107-122. https://doi:10.17679/iuefd.17294446

Kılıç, Y. & Haşıoğlu, M. A. (2017). Sosyoekonomik durumun öğrenci başarısına etkisi. *YYÜ Eğitim Fakültesi Dergisi, 14*(1), 1025-1049. http://dx.doi.org/10.23891/efdyyu.2017.38

Kılınç, A. Ç. (2013). The relationship between individual teacher academic optimism and school climate. *International Online Journal of Educational Sciences, 5*(3), 621-634. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.657.6102&rep=rep1&type=pdf

Kim, L. E., Dar-Nimrod, I. & MacCann, C. (2017). Teacher personality and teacher effectiveness in secondary school: Personality predicts teacher support and student self-efficacy but not academic achievement. *Journal of Educational Psychology, 110*(3), 309-323. http://dx.doi.org/10.1037/edu0000217

Kirby, M. M. & DiPaola, M. F. (2011). Academic optimism and community engagement in urban schools. *Journal of Educational Administration, 49*(5), 542-562. http://dx.doi.org/10.1108/09578231111159539

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.

Kochanek, J. R. (2005). *Building trust for better schools*. Thousand Oaks, CA: Corwing Press.

Korkmaz, M. (2005). İlköğretim okullarında örgütsel sağlık ile öğrenci başarısı arasındaki ilişki. *Kuram ve Uygulamada Eğitim Yönetimi, 44*, 529-548. Retrieved from http://dergipark.ulakbim.gov.tr/kuey/article/view/5000050691/5000047939

Korkmaz, M. (2007). Örgütsel sağlık üzerinde liderlik stillerinin etkisi. *Kuram ve Uygulamada Eğitim Yönetimi, 49*, 57-91. Retrieved from https://pegem.net/dosyalar/dokuman/2858-20110604123018-3-korkmaz.pdf

Korkmaz, M. (2011). İlköğretim okullarında örgütsel iklim ve örgütsel sağlığın örgütsel bağlılık üzerindeki etkisi. *Kuram ve Uygulamada Eğitim Yönetimi, 17*(1), 117-139. Retrieved from http://dergipark.gov.tr/download/article-file/108212

Kotok, S. (2017). Unfulfilled potential: high-schieving minority students and the high school achievement gap in math. *The High School Journal, 100*(3), 183-202. https://doi.org/10.1353/hsj.2017.0007

Koza Çiftci, Ş. & Cin, F. M. (2017). The effect of socioeconomic status on students' achievement. In E. Karadağ (Eds.), *The factors effecting student achievement* (pp. 241-258). Springer: Cham.

Kuru Cetin, S., Taskin, P. (2016). Parent involvement in education in terms of their socio-economic status. Eurasian Journal of Educational Research, 66, 105-122 http://dx.doi.org/10.14689/ejer.2016.66.6

Kwong, D. & Davis, J. R. (2015). School climate for academic success: a multilevel analysis of school climate and student outcomes. *Journal of Research in Education, 25*(2), 68-81.

Lane, J., & Lane, A. M. (2001). Self-efficacy and academic performance. *Social Behavior and Personality, 29*, 687-694. https://doi.org/10.2224/sbp.2001.29.7.687

Lee, J. (2012). The effects of the teacher-student relationship and academic press on student engagement and academic performance. *International Journal of Educational Research, 53*(2), 209-216. https://doi.org/10.1080/03055690601068477

Lee, S. (2007). The relations between the student–teacher trust relationship and school success in the case of Korean middle schools. *Educational Studies, 33*, 330-340. http://dx.doi.org/10.1016/j.ijer.2012.04.006

Lee, V. E. & Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. *Sociology of Education, 62*(3), 172-192.

Lee, V. E. & Smith, J. B. (1999). Social support and achievement for young adolescents in Chicago: the role of school academic press. *American Educational Research Journal, 36*(4), 907-945. http://dx.doi.org/10.2307/1163524

Leighton, P. J., Guo, Q., Chu, M. & Tang, W. (2018). A pedagogical alliance for academic achievement: socio-emotional effects on assessment outcomes. *Educational Assessment, 23*(1), 1-23. https://doi.org/10.1080/10627197.2017.1411188

Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created "social climates.". *Journal of Social Psychology, 10*(2), 271-299. http://dx.doi.org/10.1080/00224545.1939.9713366

Lin, T. & Lv, H. (2017). The effects of family income on children's education: an empirical analysis of CHNS data. *Research in Modern Higher Education, 4*, 49-54. https://doi.org/10.24104/rmhe/2017.04.02002

Lizzio, A., Dempster, N. & Neumann, R. (2011). Pathways to formal and informal student leadership: the influence of peer and teacher-student relationships and level of school identification on students' motivations. *International Journal of Leadership in Education, 14*(1), 85-102. https://doi.org/10.1080/13603124.2010.482674

Lunenburg, F. C., & Ornstein, A. C. (2012). *Educational administration: Concepts and practices* (6th ed.). Belmont, CA: Wadsworth/Cengage Learning.

MacNeil, A. J., Prater, D. L., & Busch, S. (2009). The effects of school culture and climate on student achievement. *International Journal of Leadership in Education: Theory and Practice, 12*(1), 73-84.

Marayan, D. & Cassidy, M. F. (2001). A dimensional approach to measuring social capital: development and validation of social capital inventory. *Current Sociology, 49*(2), 59-102. Retrieved from https://commdev.org/userfiles/files/652_file_a020037.pdf

Maxwell, S., Reynold, K. J., Lee, E., Subasic, E. & Bromhead, D. (2017). The impact of school climate and school identification on academic achievement: multilevel modeling with student and teacher data. *Frontiers in Psychology, 8*, 1-21. https://doi.org/10.3389/fpsyg.2017.02069

Mcdill, E. L., Natriello, G., & Pallas, A. M. (1986). A population at-risk: potential consequences of tougher school standards for student dropouts. *American Journal of Education, 94*(2), 135–181.

McGuigan, L. & Hoy, W. K. (2006). Principal leadership: creating a culture of academic optimism to improve achievement for all students. *Leadership and Policy in Schools, 5*, 203–229. https://doi.org/10.1080/15700760600805816

Ministry of Development. (2006). Dokuzuncu kalkınma planı. Retrieved January, 10, 2017, from http://www.kalkinma.gov.tr/Lists/Kalknma%20Planlar/Attachments/1/Ninth_Development_Plan_2007-2013.pdf

Ministry of Development. (2016). Onuncu kalkınma planı. Retrieved January, 10, 2017, from http://www.kalkinma.gov.tr/Lists/Kalknma%20Planlar/Attachments/12/Onuncu_Kalk%C4%B1nma_Plan%C4%B1.pdf

Ministry of National Education. (2017). Milli eğitim istatistikleri. Retrieved January, 10, 2017, from http://sgb.meb.gov.tr/meb_iys_dosyalar/2017_09/08151328_meb_istatistikleri_orgun_egitim_2016_2017.pdf

Mitchell, R. M. & Tarter, C. J. (2016). A path analysis of the effectsof principal professional orientations towards leadership, professional teacher behavior, and school academic optimism on school reading achievement. *Societies, 6*(1), 5. https://doi.org/10.3390/soc6010005

Mitchell, R. M., Kensler, L. & Tschannen-Moran, M. (2018). Student trust in teachers and student perceptions of safety: positive predictors of student identification with school. *International Journal of Leadership in Education, 21*(2), 135-154. https://doi.org/10.1080/13603124.2016.1157211

Multon, K. D., Brown, S. D. & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: a meta-analytic investigation. *Journal of Counseling Psychology, 38*(1), 30-38. https://doi.org/10.1037/0022-0167.38.1.30

Muris, P. (2001). A brief questionnaire for measuring self-efficacy in youths. *Journal of Psychopathology and Behavioran Assessment, 23*(3), 145-149. http://dx.doi.org/10.1023/A:1010961119608

O'Malley, M., Voight, A., Renshaw, T. L. & Eklund, K. (2015). School climate, family structure, and academic achievement: a study of moderation effects. *School Psychology Quarterly, 30*(1), 142-157. http://dx.doi.org/10.1037/spq0000076

OECD (2014). *PISA 2012 results: What 15-year olds know and what they can do with what they know*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264208780-en.

OECD (2016). *PISA 2015 results (Volume I): Excellence and equity in education*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264266490-en

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research, 70*(3), 232-367.

Önder, E. & Uyar, Ş. (2018). Factors affecting the academic achievement in sociologically disadvantaged students. *Pegen Eğitim ve Öğretim Dergisi, 8*(2), 253-280. https://doi.org/10.14527/pegegog.2018.011

Öqvist, A. & Malmström, M. (2018). What motivates students? A study on the effects of teacher leadership and students' self-efficacy. *International Journal of Leadership in Education, 21*(2), 155-175. https://doi.org/10.1080/13603124.2017.1355480

Özdemir, S., Sezgin, F., Şirin, H., Karip, E., & Erkan, S. (2010). Examining the variables predicting primary school students' perceptions of school climate. *Hacettepe University Journal of Education, 38,* 213-224. Retrieved from http://www.efdergi.hacettepe.edu.tr/makale_goster.php?id=430

Özer Özkan, Y. & Acar Güvendir, M. (2014). Socioeconomic factors of students' relation to mathematic achievement: comparison of PISA and ÖBBS. *International Online Journal of Educational Sciences, 6*(3), 776-789. http://dx.doi.org/10.15345/iojes.2014.03.020

Özer, A. & Anıl, D. (2011). Öğrencilerin fen ve matematik başarılarını etkileyen faktörlerin yapısal eşitlik modeli ile incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi , 41,* 313-324. Retrieved from http://www.efdergi.hacettepe.edu.tr/yonetim/icerik/makaleler/702-published.pdf

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66* (4), 543–578.

Pajares, F., & Schunk, D. H. (2001). Self-beliefs and school success: self-effcacy, self-concept, and school achievement. In R. Riding, & S. Rayner (Eds.), *Perception* (pp. 239-266). London: Ablex Publishing.

Peterson, K. S. & Smith, P. A. (2011). Leading with force: the significance of collective efficacy and faculty trust in middle schools. *National Forum of Educational Administration and Supervision Journal, 28*(2), 4-26.

Phillips, M. (1997). What makes schools effective: A comparison of the relationships of communal climate and academic climate to mathematics achievement and attendance during middle school. *American Educational Research Journal, 34*(4), 633–662. http://dx.doi.org/10.2307/1163352

Phillips, S. F. & Rowley, J. F. S. (2016). The tripod school climate index: an invariant measureof school safety and relationships. *Social Work Reseach, 40*(1), http://dx.doi.org/31-39. 10.1093/swr/svv036

Pintrich, P. & Degroot, E. V. (1190). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, *82*(1), 33-40. http://dx.doi.org/10.1037/0022-0663.82.1.33

Polat, Ş. & Abaslı, K. (2018). Öğrencilerin problem çözme becerilerine yönelik algıları ve öğretmene güvenleri arasındaki ilişkinin incelenmesi. *TÜBAV Bilim Dergisi*, *11*(1), 52-61.

Raboteg-Saric, Z., Merkas, M., & Majic, M. (2011). Family characteristics, hope and optimism as determinants of academic achievement among adolescents. In D. Miljkovic & M. Rijavec (Eds.), *Positive psychology in education, book of selected papers* (73-88). Zagreb: Faculty of Teacher Education, University of Zagreb & ECNSI.

Rempel, J. K., Micheal, R. & Holmes, J. K. (2011). Trust an communicated attributions in close relationships. *Journal of Personality and Social Psychology*, *81*(1), 57-64. https://doi:I0.1037//0022-3514.8I.1.57

Roorda, D. L., Jak, S., Zee, M., Ooort, F. J. & Koomen, H. M. Y. (2017). Affective teacher-student relationships and student's engagement and achievement: a meta-analytic update and test of the mediating role of engagement. *School Psychology Review*, *46*(3), 239-361. https://doi:10.17105/SPR-2017-0035.V46-3

Roscigno, V. J. & Ainsworth-Darnell, J. W. (1999). Race, cultural capital and educational resources: Persisten inequalities and achievement returns. *Sociology of Education*, *72*(3), 158-178. https://doi:10.2307/2673227

Russell, S. L., Wentzel, K. R. & Donlan, A. E. (2016). Teachers beliefs about the development of teacher-adolescent trust. *Learning Environment Research*, *19*(2), 241-266. https://doi:10.1007/s10984-016-9207-8

Sanchez, M. (2017). A structural equation model of the combined effects of teacher and student academic optimism on student achievement. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 79(3-A)(E).

Sarı, M. (2013). Sense of school belonging among high school students. *Anadolu University Journal of Social Sciences, 13*(1*)*, 147-160.

Sarıer, Y. (2010). Ortaöğretime giriş sınavları (OKS-SBS) ve PISA sonuçları ışığında eğitimde fırsat eşitliğinin değerlendirilmesi. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi*, *11*(3*)*, 107-129.

Schuller, T. (2001). The complementary roles of human and social capital. *Canadian Journal of Policy Research*, *2*(1*)*, 18-24. Retrieved from http://www.oecd.org/innovation/research/1825424.pdf

Schunk, D. H. (1984). *Self-effcacy and classroom learning.* Paper presented at the 68th Annual Meeting of the American Educational Research Association, New Orleans, LA. Retrieved from https://files.eric.ed.gov/fulltext/ED247254.pdf

Schunk, D. H. (1985). Self-efficacy and classroom learning. *Psychology in the Schools, 22*(2), 208-223. Retrieved from https://libres.uncg.edu/ir/uncg/f/D_Schunk_Self_1985.pdf

Schunk, D. H. (1989). Self-efficacy and achievement behavior. *Educational Psychology Review, 1*(3), 173-208. Retrieved from https://libres.uncg.edu/ir/uncg/f/D_Schunk_Self_1989.pdf

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*, 207-231. Retrieved from https://wss.apan.org/jko/mls/Learning%20Content/schunk%20academic%20self%20efficacy.pdf

Schunk, D. H., & Meece, J. L. (2006). Self-efficacy development in adolescence. In F. Pajares, & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 71-96). Greenwich, CT: Information Age Publishing.

Sherblom, S. A., Marshall, J. C., & Sherblom, J. C. (2006). The relationship between school climate and math and reading achievement. *Journal of Research in Character Education, 4*(1–2), 19–31.

Shouse, R. (1995). *Academic press and school sense of community: sources of friction, prospects for synthesis*. Paper presented at the 1995 Annual Meeting of the American Educational Research Association, San Francisco, CA. Retrieved from https://eric.ed.gov/?id=ED387868

Shukla, K., Konold, T., & Cornell, D. (2016). Profiles of student perceptions of school climate: relations wşith risk behaviors and academic outcomes. *American Journal of Community Psychology, 57*(3-4), 291–307. https://doi:10.1002/ajcp.12044

Sirin, S. R. (2005). Socioeconomic status and academic achievement: a meta-analytic review of research. *Applied Developmental Science, 75*(3), 417-453. Retrieved from https://www.jstor.org/stable/pdf/3515987.pdf?refreqid=excelsior%3A931afbe20aa6ecce0e68ced3fcea82cd

Sirin, S. R., & Rogers-Sirin, L. (2005). Components of school engagement among African American adolescents. *Applied Developmental Science, 9,* 5–13. https://doi.org/10.1207/s1532480xads0901_2

St-Amand, J., Girard, S., & Smith, J. (2017). Sense of belonging at school: defining attributes, determinants, and sustaining strategies. *IAFOR Journal of Education, 5*(2), 105–120. Retrieved from https://issuu.com/iafor/docs/ije_vol_5_iss_2

Şahin, A. (2011). İlköğretim ve ortaöğretim öğrencilerinin Türkçe başarı durumlarının çeşitli değişkenler açısından incelenmesi. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 15*(1), 311–326. Retrieved from http://e-dergi.atauni.edu.tr/ataunisosbil/article/view/1020007625/0

Tabachnick, B. G., & Fidell, L. S. (2007*). Using multivariate statistics* (6th ed.). Boston: Pearson/Allyn & Bacon.

Tagiuri, R. (1968). The concept of organizational climate. In: R. Tagiuri, G.H. Litevin (Eds.), *Organizational climate: Explanation of a concept* (pp. 11-32 *)*. Boston: Harvard University Press.

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S.Worchel (Eds.), *The social psychology of intergroup relations* (33-47). Pacific Grove, CA: Brooks & Cole.

Taner, M. & Başal, H. (2005). Farklı sosyoekonomik düzeylerde okulöncesi eğitimi alan ve almayan ilköğretim birinci sınıf öğrencilerinin dil gelişimlerinin cinsiyete göre karşılaştırılması. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi, 18*(2), 395-420. Retrieved from http://dergipark.gov.tr/download/article-file/153278

Tarter, C. J. & Hoy, W. K. (2004). A systems approach to quality in elementaty schools: a theoretical and empirical analysis. *Journal of Educational Administration, 42*(5), 539-554. https://doi.org/10.1108/09578230410554052

Taubman, P. (1989). Role of parental income in educational attainment. *The American Economic Review, 79*(2), 57-61. Retrieved from https://www.jstor.org/stable/pdf/1827730.pdf?refreqid=excelsior%3Afaaebc917be00734b7b3e9b5cde676d3

Telef, B. B. & Karaca, R. (2011). Ergenlerin öz-yeterliklerinin ve psikolojik semptomlarının incelenmesi, *8*(16), 499-518. Retrieved from http://sbed.mku.edu.tr/article/view/1038000300/1038000249

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357–385. https://doi:10.3102/0034654313483907

Tschanenen-Moran, M., Bankole, R. A., Mitchell, R. M., Dennis, M. M. & Moore, D. M. Jr., (2013). Student academic optimism: a confirmatory factor

analysis. *Journal of Educational Administration, 51*(2), 150-175. http://dx.doi.org/10.1108/09578231311304689

Tschannen-Moran, M. & Hoy, W. (1998). Trust in schools: a conceptual analysis. *Journal of Educational Administration, 36*(4), 334-352. https://doi.org/10.1108/09578239810211518

Tschannen-Moran, M. & Hoy, W. K. (2000). A multidisciplinary analysis of the nature, meaning, and measurement of trust. *Review of Educational Research, 70*(4), 547-593. https://doi.org/10.2307/1170781

Tuncer, I. (2007). Konya il merkezindeki 11-16 yaş grubu kız öğrencilerinde sosyoekonomik durum, antropometrik vücut ölçümleri ve menarşla büyüme ve gelişmenin değerlendirilmesi. *S. D. Ü. Tıp Fakültesi Dergisi, 14*(1), 25-28. Retrieved from http://dergipark.gov.tr/download/article-file/196668

Turkish Statistical Institute. (2017a). Distribution of annual household disposable income by quintiles ordered by household disposable income, 2006-2016 [Data file]. Retrieved from http://www.turkstat.gov.tr/PreTablo.do?alt_id=1011

Turkish Statistical Institute. (2017b). Distribution of non-institutional population by equivalised household disposable median income groups and possession of durables, 2006-2016 [Data file]. Retrieved March, 10, 2017, from http://www.turkstat.gov.tr/PreTablo.do?alt_id=1011

TÜRK-İŞ. (2017). *Limit of hunger and poverty, December 2017*. Retrieved February, 10, 2018, from http://www.turkis.org.tr/LIMIT-OF-HUNGER-AND-POVERTY---DECEMBER-2017-d11679

Uline, C., & Tschannen-Moran, M. (2008). The walls speak: The interplay of quality facilities, school climate, and student achievement. *Journal of Educational Administration, 46*(1), 55–73. https://doi.org/10.1108/09578230810849817

Usher E. L. & Pajares F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research, 78*, 751-796. https://doi.org/10.3102/0034654308321456

Uysal E. & Yenilmez K. (2011). Sekizinci sınıf öğrencilerinin matematik okuryazarlığı düzeyi. *Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Dergisi, 12(2)*, 1-15. Retrieved from http://dergipark.ulakbim.gov.tr/ogusbd/article/view/5000080971/5000075242

Van Maele, D. & Van Houtte, M. (2009). Faculty trust and organizational school characteristics. *Journal of Educational Administration, 45*(4), 559-589. https://doi.org/10.1177/0013161X09335141

Van Maele, D. & Van Houtte, M. (2011). The quality of school life: teacher-student trust relationships and the organizational school context. *Social Indicators Research, 100*(1), 85-100. https://doi.org/10.1007/s11205-010-9605-8

Veiskarami, H. A., Ghadampour, E. & Mottaghinia, M. R. (2017). Interactions among school climate, collective self-efficacy, and personal self-efficacy: evidence from education institutions. *International Journal of Economic Perspectives, 11*(1), 481-488.

Voelkl, K. (1996). Measuring identification with school. *Educational and Psychological Measurement, 56*(5), 760-770. https://doi.org/10.1177/0013164496056005003

Voelkl, K. (1997). Identification with school. *American Journal of Education, 105*(3), 577-609. http://dx.doi.org/10.1086/444158

Wagner, C., & DiPaola, M. (2011). Academic optimism of high school teachers: its relationship to organizational citizenship behaviors and student achievement. *Journal of School Leadership, 21*(6), 893-926. https://doi:10.1007/s10648-015-9319-1

Wang, M., & Degol, J. L. (2013). School climate: a review of the construct, measurement and impact on student outcomes. *Educational Psychology Review, 28*(2), 315-352. https://doi:10.1007/s10648-015-9319-1

White, K. (1982). The relation between socioeconomic status and academic achievement. *Psychological Bulletin, 91*(3), 461-482. https://doi.org/10.1037/0033-2909.91.3.461

Woolfolk Hoy, A., Hoy, W. K. & Kurz, N. M. (2008). Teacher's academic optimism: the development and test of a new construct. *Teaching and Teacher Education, 24*(4), 821-835. https://doi.org/10.1016/j.tate.2007.08.004

Yelgün, A. & Karaman, I. (2015). What are the factors reducing the academic achievement in a primary school located in a neighborhood with a low socioeconomic status . *Education and Science, 40*(179), 251-269. https://doi.org/10.1016/j.tate.2007.08.004

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal-setting. *American Educational Research Journal, 29*(3), 663-676. http://dx.doi.org/10.2307/1163261

Zullig, K. J., Collins, R., Ghani, N., Patton, J. M., Scott Huebner, E. & Ajamie, J. (2014). Psychometric support of the school climate measure in a large, diverse sample of adolescents: a replication and extension. *Journal of School Health, 84*(2), 82-90. https://doi:10.1111/josh.12124

Zullig, K., Koopman, T., Patton, J., & Ubbes, V. (2010). School climate: Historical review, instrument development, and school assessment. *Journal of Psychoeducational Assessment, 28*(2), 139-152. https://doi:10.1177/0734282909344205

APPENDICES

A. Approval Letter from Middle East Technical University Human Subjects Ethics Committee

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

Sayı: 28620816 /308

05 Mayıs 2017

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Doç. Dr. Yaşar KONDAKÇI ;

Danışmanlığını yaptığınız yüksek lisans öğrencisi Hanife Hilal ŞENAY' ın ***"Lise Öğrencilerinin Başarı, İyimserlik, Öz-yeterlik ve Gelir Durumları Arasındaki İlişki"*** başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay **2017-EGT-093** protokol numarası ile **18.09.2017 – 30.09.2018** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Ş. Halil TURAN
Başkan V

Prof. Dr. Ayhan SOL
Üye

Prof. Dr. Ayhan Gürbüz DEMİR
Üye

Doç. Dr. Yaşar KONDAKÇI
Üye

Doç. Dr. Zana ÇITAK
Üye

Yrd. Doç. Dr. Pınar KAYGAN
Üye

Yrd. Doç. Dr. Emre SELÇUK
Üye

B. Permission Document from Manisa City Directorate of National Education

T.C.
MANİSA VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : 63852065-200-E.18583663 06.11.2017
Konu : Araştırma İzni

DAĞITIM YERLERİNE

İlgi : a) 07.02.2013 tarihli ve 3616 sayılı yazı(Genelge No:2012/3)
b) Ortaöğretim Genel Müdürlüğünün 18.07.2017 tarihli ve 10932145 sayılı yazısı

Orta Doğu Teknik Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Anabilim Dalı Yüksek Lisans öğrencisi Hanife Hilal ŞENAY'ın "Lise Öğrencilerinin Başarı, İyimserlik, Öz Yeterlik ve Gelir Durumları Arasındaki İlişki" konulu araştırma isteğinde bulunduğu, Orta Doğu Teknik Üniversitesince kabul edilerek onaylı bir örneği Bakanlığa gönderilen veri toplama araçlarının ilgi (a) genelge doğrultusunda eğitim ve öğretim aksatılmadan, gönüllülük esas olmak üzere ekli listede yer alan Ankara ve Manisa İllerinde bulunan liselerde eğitim gören öğrencilere yönelik olarak uygulanmasında sakınca görülmediği ilgi (b) yazıda belirtilmiştir.

Konu ile ilgili gerekli kolaylığın sağlanmasını rica ederim.

Recep DERNEKBAŞ
Vali a.
Milli Eğitim Müdürü

Ek:
1- İlgi (b) yazı

Dağıtım
Gereği:
17 İlçe Milli Eğitim Müdürlüğüne

Bilgi:
Hanife Hilal ŞENAY

Nişancıpaşa Mahallesi Atatürk Bulvarı No 36/A Şehzadeler/MANİSA Ayrıntılı bilgi için irtibat : Orta Öğretim Bürosu
Telefon : (0236) 239 62 87 / 237 00 32 / 234 79 05 / 239 89 11 Faks: (0236) 231 12 51
e-posta : ortaogretim45@meb.gov.tr manisamem@meb.gov.tr Elektronik Ağ: http://manisa.meb.gov.tr

C. Informed Consent Form

ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU

Bu çalışma ODTÜ Eğitim Bilimleri Bölümü yüksek lisans öğrencilerinden Hanife Hilal Şenay tarafından yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Bu çalışmanın amacı lise öğrencilerinin akademik iyimserlik, öz-yeterlik, gelir ve başarıları arasındaki ilişkiyi incelemektir.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmada sizden bir anket doldurmanız istenecektir. Yaklaşık 10 dakika sürecek bu ankette sizinle ilgili genel bilgiler, okulunuz ve öğretmenlerinizle olan ilişkiniz ve akademik öz-yeterliğinizle ilgili maddeler ve sorular bulunmaktadır. Sizden bu maddelerden uygun olanı işaretlemeniz ve soruları cevaplamanız beklenmektedir.

Sizden Topladığımız Bilgileri Nasıl Kullanacağız?

Araştırmaya katılımınız tamamen gönüllülük temelinde olmalıdır. Çalıştayda sizden kimlik veya çalıştığınız kurum/bölüm/birim gibi belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak, sadece araştırmacılar tarafından değerlendirilecektir. Katılımcılardan elde edilecek bilgiler toplu halde değerlendirilecek ve bilimsel yayımlarda kullanılacaktır. Sağladığınız veriler gönüllü katılım formlarında toplanan kimlik bilgileri ile eşleştirilmeyecektir.

Katılımınızla ilgili bilmeniz gerekenler:

Çalışma, genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Böyle bir durumda çalışmayı uygulayan kişiye, çalışmadan çıkmak istediğinizi söylemek yeterli olacaktır.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışmayla ilgili soru ve yorumlarınızı araştırmacıya hsenay@metu.edu.tr adresinden iletebilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum.
(Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyad Tarih İmza
---/----/-----

D. Parental Approval Form

Veli Onay Formu

Sayın Veli,

Bu çalışma Orta Doğu Teknik Üniversitesi yüksek lisans öğrencisi Hanife Hilal Şenay tarafından yürütülmektedir.

Bu çalışmanın amacı nedir? Bu çalışmanın amacı lise öğrencilerinin akademik iyimserlik, öz-yeterlik, gelir ve akademik başarıları arasındaki ilişkiyi incelemektir.

Çocuğunuzun katılımcı olarak ne yapmasını istiyoruz?: Bu amaç doğrultusunda, çocuğunuzdan bir anket doldurmasını isteyeceğiz ve cevaplarını yazılı biçiminde toplayacağız. Sizden çocuğunuzun katılımcı olmasıyla ilgili izin istediğimiz gibi, çalışmaya başlamadan çocuğunuzdan da yazılı olarak katılımıyla ilgili rızası mutlaka alınacaktır.

Çocuğunuzdan alınan bilgiler ne amaçla ve nasıl kullanılacak?: Çocuğunuzdan alacağımız cevaplar tamamen gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Elde edilecek bilgiler sadece bilimsel amaçla kullanılacak, çocuğunuzun ya da sizin ismi ve kimlik bilgileriniz, hiçbir şekilde kimseyle paylaşılmayacaktır.

Çocuğunuz ya da siz çalışmayı yarıda kesmek isterseniz ne yapmalısınız?: Katılım sırasında sorulan sorulardan ya da herhangi bir uygulama ile ilgili başka bir nedenden ötürü çocuğunuz kendisini rahatsız hissettiğini belirtirse, ya da kendi belirtmese de araştırmacı çocuğun rahatsız olduğunu öngörürse, çalışmaya sorular tamamlanmadan ve derhal son verilecektir.

Bu çalışmayla ilgili daha fazla bilgi almak isterseniz: Çalışmaya katılımınızın sonrasında, bu çalışmayla ilgili sorularınız yazılı biçimde cevaplandırılacaktır. Çalışma hakkında daha fazla bilgi almak için Eğitim Bilimleri Bölümü öğrencilerinden hsenay@metu.edu.tr e-posta adresinden iletişim kurabilirsiniz. Bu çalışmaya katılımınız için şimdiden teşekkür ederiz.

Yukarıdaki bilgileri okudum ve çocuğumun bu çalışmada yer almasını onaylıyorum. (Lütfen alttaki iki seçenekten birini işaretleyiniz.)

Evet onaylıyorum___ ***Hayır, onaylamıyorum___***

Velinin adı-soyadı: _____ Bugünün Tarihi:_____

Çocuğun adı soyadı ve doğum tarihi:_____

(Formu doldurup imzaladıktan sonra araştırmacıya ulaştırınız).

D. Turkish Summary / Türkçe Özet

Giriş

İnsanlar sosyal hayatta psikolojik ve ekonomik özellikleri ile yaşar ve varolurlar. Bu durum bir eğitim kurumu olarak okullar için de geçerlidir. Bu bağlamda düşünüldüğünde sosyal bir bileşen olarak öne çıkan okullarda öğrenciler de psikolojik/bilişsel ve ekonomik açıdan değerlendirilebilirler. Bu değerlendirme sonucunda da öğrencilerin bu açılardan ne gibi farklılıklar/benzerlikler taşıdığı ve bu farklılıkların/benzerliklerin akademik başarılarını nasıl etkilediği belirlenebilir olmaktadır.

Bandura (1977) öğrenci akademik başarısını yordayan birincil etmenin öz-yeterlik olduğunu öne sürmüştür. Yine Schunk ve Meece (2006) öz-yeterliği yüksek olan ergenlerin sorunlarını daha iyi çözdüklerini ve kendileri için daha yüksek akademik hedefler belirlediklerini ortaya koymuşlardır. Benzer şekilde Pajares (1996) ise öz-yeterliğin akademik başarı üzerinde doğrudan bir etkili olduğunu göstermiştir. Fakat iki çalışmada da okul ve kaynakların, ailenin ve çevrenin de öz-yeterlik, ve doğal olarak da akademik başarı, üzerinde etkisi olacağının altı çizilmiştir. Dahası, Usher ve Pajares (2008) öz-yeterliğin yordayan değişkenler üzerine olan çalışmalarında öğrenci öz-yeterliğinin daha derinlemesine incelenmesi gerektiğini savunmuşlar ve özellikle de okul ve öğrenme ile ilgili öğrenci inanışlarını da içeren çevresel etmenler üzerinde durulmasını tavsiye etmişlerdir.

Öğrencinin okul ortamına taşıdığı bir diğer özellik ise ekonomik boyuttur. Gerek insan sermayesi (Becker, 1964) gerekse kültürel sermaye (Bourdieu, 1986) bakış açısından bakıldığında ekonomik bir sermaye olan ve öğrencinin sosyoekonomik konumunu oluşturan aile gelirinin tüm diğer sermaye türlerinin kökenini oluşturduğu açıktır. Bu yüzden de sosyoekonomik konum ve öğrenci başarısı

arasındaki ilişki hem OECD raporlarında hem de alanyazında çokça ilgi görmüş ve çalışılmıştır. PISA 2015 sonuçlarına göre (OECD, 2016) Türkiye, bu ilişkinin ortalamanın altında olduğu 26 ülke arasında yer almaktadır. Diğer bir yandan ise Türkiye'deki alanyazındaki çalışmaların çoğu PISA sonuçlarının tam tersine sosyoekonomik konum ve öğrenci akademik başarısı arasında güçlü bir ilişki olduğunu ortaya koymaktadır (Koza Çiftçi & Cin, 2017). Bu durumda, PISA sonuçları ve alanyazın arasındaki bu farkın nedeni Türkiye'nin halihzırda öğrenci başarısı sıralamalarında ortalamanın altında olması ile açıklanabilir. Bu da demektir ki Türkiye'de sosyoekonomik konumu ne olursa olsun öğrenciler akademik olarak başarı yakalayamamaktadırlar. Bu durum ise bu iki olgu arasındaki ilişkinin analiz edilmesinde yanıltıcı bir etki yaratabildiğini göstermektedir.

Genel olarak bakılacak olursa alanyazın ve raporlar Türkiye'de SES ve akademik başarı arasında pozitif bir ilişki olduğunu göstermektedir. Bu da Türkiye'deki öğrencilerin eğitime hazırbulunuşlukları arasında da bir fark olduğu şeklinde yorumlanabilir. Bu durum da göz önüne alındığında özellikle etkili okul üzerine çalışmalar açısından okul bağlamını daha sosyolojik bir açıdan incelemenin gerekliliği daha da öne çıkmaktadır. Alanyazında okula ilişkin faktörlerin öğrenci başarısına etki ettiği şüphesizdir fakat SES ve sosyal faktörler eklendiğinde okulun ne derecede etkili olabileceği tartışmalı olabilmektedir. Bu aşamada da Hoy (2012) SES dışında öğrenci başarısını etkileyen değişkenleri incelediği geniş alanyazın çalışmasında özellikle 3 okul niteliği üzerinde durmuştur. Okul akademik iyimserliğini de oluşturan bu 3 değişken öz-yeterlik, akademik vurgu and öğrenciye ve aileye güvendir. Buradan hareketle okul ve öğretmen akademik iyimserliği üzerine gerek Türkiye gerekse uluslararası alanyazında birçok çalışma bulmak mümkün olmasına rağmen (Gürol & Kerimgil, 2010) daha yeni bir kavram olan öğrenci akademik iyimserliği üzerine çalışmalar henüz yeni yeni oluşmaya başlamaktadır. Tschannen-Moran ve diğerleri (2013) benzer kavramlar üzerinden öğretmene güven, okul ile özdeşleşme ve okulun akademik vurgusu olmak üzere 3 boyutlu öğrenci akademik iyimserliğini alanyazına kazandırmışlardır. Daha da önemlisi, aynı çalışmada öğrenci akademik iyimserliği boyutlarının tıpkı Hoy‘un

(2012) çalışmasında olduğu gibi sosyoekonomik değişkenin olumsuz etkisini ortadan kaldırabildiği bulunmuştur.

Sonuç olarak, alanyazında bulunan çalışmalara bakıldığında öğrenci bağaşırısını doğrudan ve güçlü bir şekilde etkileyen 3 değişken karşımıza çıkmaktadır. Bunlar psikolojik bir etmen olarak öğrenci akademik öz-yeterliği, sosyal ya da psikososyal bir etmen olarak öğrenci akademik iyimserliği ve de ekonomik bir etmen olarak aile geliridir. Her ne kadar bu üç değişkenin öğrenci başarısı içerisinde büyük bir oranı açıkladığı bilinse de tüm faktörler bir araya geldiğinde hangi değişkenin ne derecede etkili olacağı halen belirsizdir.

1.1 Amaç ve Araştırma Soruları

Bu çalışmanın genel amacı öğrenci akademik öz-yeterliği, akademik iyimserliği ve de aile geliri değişkenleri arasındaki ilişkiyi incelemek ve de bu üç değişkenin öğrenci akademik başarısını ne derecede yordadığını ortaya çıkarmaktır. Bunun yanında çalışmada, 3 boyuttan oluşan öğrenci akademik iyimserliği değişkeninin Türkiye bağlamında ne ölçüde geçerli olduğunu test etmek de amaçlanmaktadır.

Ana ve alt araştırma soruları aşağıda belirtilmiştir.

Akademik öz-yeterlik, akademik optimism, aile geliri ve başarı arasındaki ilişki nedir?

- Öğretmene güven, akademik vurgu ve okul ile özdeşleşme öğrenci akademik iyimserliğini oluşturmakta mıdır?
- Akademik öz-yeterlik, akademik iyimserlik ve aile geliri başarıyı yordamakta mıdır?

Yöntem

Bu çalışmada ilişkisel araştırma yöntemi kullanılmaktadır. Çalışmada akademik öz-yeterlik, akademik iyimserlik ve aile geliri olmak üzere 3 bağımsız faktör bulunduğu ve bu faktörlerin başarı değişkeni üzerine etkileri literatür temel alınarak hazırlanan bir model üzerinden inceleneceğinden analizler, Yapısal Eşitlik Modellemesi (YEM) tekniği kullanılarak yapılmıştır.

Buna ek olarak, çalışmada kullanılan Akademik Öz-Yeterlik ve Öğrenci Akademik İyimserliği ölçekleri aslen İngilizce olarak geliştirildiğinden, ana çalışmaya geçmeden önce bir de uyarlama/çeviri çalışması yapılmıştır. Açımlayıcı Faktör Analizi (AFA) yapılarak test edilen ölçekler sonrasında Doğrulayıcı Faktör Analizi (DFA) yapılarak teyit edilmiş ve de öğrenci akademik iyimserliği alt boyutlarının bir araya gelip gelmediği incelenmiştir.

2.1 Örneklem ve Veri Toplama Süreci

Çalışma Manisa ilinde yürütülmüştür. Veriler küme tipi rasgele örnekleme yöntemiyle sadece ortaöğretim kurumlarındaki okullarda okuyan son sınıf öğrencilerinden toplanmıştır. Bunun nedeni çalışmanın amacının okullar ya da sınıflar arası karşılaştırma yapmaktan çok genel bir görünüm elde etmekeye çalışmaktır. Ayrıca çalışmanın odağı akademik değişkenler olduğu için üniversiteye giriş sınavlarına hazırlanmakta olan son sınıf öğrencilerinin okullarını akademik açıdan daha iyi değerlendirebileceği düşünülmüştür. Bunun yanında eğitimlerinin amaç ve hedefleri açısından genel liselerden farklılaşan mesleki ve teknik liselerden veri toplanmamıştır. Toplamda 58 okul arasından 6 farklı ilçedeki 8 okuldan veri toplanmıştır.

Veri toplamak için kullanılan anket 3 ayrı bölüm ve 3 sayfadan oluşmaktadır. İlk bölümde demografik bilgiler, aile geliri, sosyoekonomik statü değişkenleri ve genel not ortalaması ile ilgili sorular bulunmaktadır. Diğer iki kısım ise Akademik Öz-

Yeterlik ve Öğrenci Akademik İyimserliği ölçeklerine ait sorular içermektedir. Anketler dağıtılmadan önce tüm öğrencilere Ebeveyn Onay Formu dağıtılmış, sonraki gün imzalı formlar araştırmacı tarafından teslim alındıktan sonra çalışmaya katılmak isteyen öğrencilere Gönüllü Katılım Formu ile birlikte anketler uygulanmışır.

2.2 Veri Toplama Araçları

Veri toplamada kullanılan ankette SES değişkenleri ve GNO yanında Tschannen-Moran ve diğerleri tarafından geliştirilen 3 boyutlu Öğrenci Akademik İyimserliği ölçeği ve Bandura vd. (1999) tarafından geliştirilen ve sonrasında Muris (2001) tarafından ergenler için uyarlanan Akademik Öz-Yeterlik Ölçeği kullanılmıştır. Ölçeklerin çeviri çalışmaları alandaki 3 uzmanın görüşü alınarak yapılmıştır.

Demografik ve SES değişkenleri verileri için öğrencinin yaşı, cinsiyeti ve okulu belirten bir formda ebeveynlerin meslek, gelir ve eğitimi, kardeş sayısı ve eğitim imkanları (müzik ve spor aktivitelerine katılım, araba, kişisel oda ve bilgisayar sahibi olunup olunmaması, özel ders/kurs durumu ve evde internete erişim) ile ilgili sorular da sorulmuştur.

Öğrenci Akademik Öz-Yeterlik Ölçeği: Bu ölçek Bandura vd. (1999) tarafından çocuklar için geliştirilmiş olup Muris (2001) tarafından ergenler için uyarlanmıştır. 5'li Likert tipi 8 sorudan oluşan ölçeğin Cronbach-Alpha güvenirlik değeri bu mevcut çalışmadaki analiz sonucu .86 olarak bulunmuştur.

Öğrenci Akademik İyimserliği Ölçeği: Öğrenci Akademik İyimserliği Ölçeği Tschannen-Moran vd. tarafından (2013) geliştirilmiştir. Orijinal ölçekte öğretmene güven, akademik vurgu ve okul ile özdeşleşme olmak üzere 3 faktörden oluşurken mevcut çalışmadaki Türkçe'ye adaptasyon çalışması sonucunda okul ile özdeşleşme boyutunun 2 farklı faktörden oluştuğu bulunmuştur. Orijinal çalışmada (Voelkl, 1996) da bu boyuttaki maddeler okula aidiyet ve okula değer verme

ölçeklerinden alındığı bilindiğinden böyle bir sonuç alınması şaşırtıcı değildir. Sonuç olarak Türkiye bağlamında ölçeğin öğretmene güven, akademik vurgu, okula aidiyet ve okula değer verme olmak üzere 4 alt boyuttan oluştuğu ortaya çıkarılmıştır. Cronbach-Alpha güvenirlik değerleri ise sırasıyla .86, .82, .84 ve .79 olarak bulunmuştur.

Aile geliri ve diğer sosyoekonomik göstergeler: Çalışmadaki bir diğer değişken aile geliridir. Aile geliri Türkiye İstatistik Kurumu (2017a) verileri temel alınıp yuvarlama yapılarak "1500TL ve altı", "1500TL-2500TL", "2500TL ve 3500tl" ve "3500TL ve üzeri" olmak üzere 4 grupta incelenmiştir. Bunun yanında aile gelirinin sosyoekonomik statüyü ne derecede temsil ettiğini doğrulamak için gelir göstergesine ek olarak ebeveynlerin meslek ve eğitimi dışında kardeş sayısı (Becker, 1964, pp. 22; Bourdieu, 1986), müzik ve spor aktivitelerine katılım (Roscigno and Ainsworth-Darnell, 1999), araba, kişisel oda ve bilgisayar sahibi olunup olunmaması, evde internete erişim ve özel ders/kurs durumu (Akbaba Altun & Çatan, 2008; Çiftçi & Çağlar, 2014) ile ilgili sorular da sorulmuştur.

Genel Not Ortalaması (GNO): Çalışmada bağımlı değişken olarak yeralan genel not ortalaması ile ilgili soruya öğrencilerden okul ortalamalarını 100 üzerinden belirtmeleri istenmiştir.

2.3 Veri Analizi

Çalışmada very analizi SPSS 24, AMOS 24 and MPLUS yazılımları kullanılarak yapılmıştır. Ölçeklerin Türkçe'ye adaptasyon çalışmasında Açımlayıcı ve Doğrulayıcı faktör analizlerinin sonuçları incelenmiştir. SES ve gelir değişkeni arasındaki ilişki incelenirken betimleyici istatistik verileri kullanılmıştır. Öz-yeterlik, iyimserlik, gelir ve GNO arasındaki ilişki ise Yapısal Eşitlik Modellemesi (YEM) tekniği kullanılarak analiz edilmiştir. Buna ek olarak model uygunluk göstergeleri için Kline'ın da tavsiye ettiği üzere (2011, s. 204) ki kare değeri, SRMR, RMSEA, TLI ve CFI değerleri incelenmiştir.

2.4 Çalışmanın Sınırlılıkları

Çalışmanın en önemli sınırlılığı en başta değişkenlerin ölçülmesi ile ilgilidir. Akademik öz-yeterlik değişkeni genel öz-yeterlik olgusundan farklı ve daha belirgin olsa da bazı araştırmacılar genel bir akademik öz-yeterlik ölçeği yerine matematik veya Türkçe adakaemik öz-yeterliği gibi ders odaklı bir ölçeğin daha açıklayıcı olacağını öne sürmüşlerdir (Usher ve Pajares, 2008). Bunun nedeninin de öğrencilerin bazı derslerde diğerlerinden daha iyi olduklarını düşünme olasılığı olacağından genel bir yeterlik sorusuyla karşılaştıklarında cevaplarının çok net olamayabileceğidir.

Bunun yanında akademik başarının da nasıl ölçüldüğü halen bir sorun olarak karşımıza çıkmaktadır. Bu çalışmada öğrencilerin okul genel not ortalaması temel alınmıştır. Buradaki sorun ise okul ortalamalarının o okuldaki öğretmenlerin hazırladıkları ve notlandırdıkları sınavlar yoluyla ölçüldüğü ve de bu rakamların diğer okullardaki öğrenciler ile başarı kıyaslamaları için çok da temsil edici olmayabileceğidir.

Son olarak ise veri toplama sürecinde öğrenciler formları doldururken öğretmen sınıfta araştırmacı ile birlikte kalmıştır. Her ne kadar sürece dahil olmalasalar ve sessiz kalmış olasalar bile çalışmada dağıtılan envanterde öğretmene güven ile ilgili maddeler bulunmaktadır ve öğrenciler sorulara cevap verirken bu durumdan etkilenmiş olabilirler.

Bulgular

Bir önceki kısımda Açımlayıcı Faktör Analizi (AFA) sonuçları Akademik Öz-Yeterlik, Öğretmene Güven, Akademik Vurgu, Okula Aidiyet ve Okula Değer Verme ölçeklerinin ayrı ayrı kullanılabileceğini ortaya koymuştur. Bu kısımda ise Öğrenci Akademik İyimserliği alt boyutlarının bir araya gelip gelmediği ve

Akademik Öz-Yeterlik ölçeği de dahil tüm ölçeklerin yapı geçerliliğini ölçmek üzere Doğrulayıcı Faktör Analizi (DFA) yapılmıştır. Buna ek olarak betimsel istatistikler üzerinden sosyoekonomik değişkenler ile aile geliri arasında bir ilişki olup olmadığı anlaşılmaya çalışılmıştır. Son olarak ise Yapısal Eşitlik Modellemesi ile bu değişkenler arasındaki ilişkiler incelenmiştir. AFA ve YEM analizleri yapılmadan önce kayıp veri analizi ve ilgili varsayımlar kontrol edilmiş ve analizler toplamda 777 katılımcıdan oluşan veri seti üzerinde gerçekleştirilmiştir.

3.1 Doğrulayıcı Faktör Analizi

3.1.1 Akademik Öz-Yeterlik Ölçeği için DFA Sonuçları

Akademik Öz-Yeterlik Ölçeği DFA sonuçların kabul edilebilinir seviyede olmadığı görülmüş ve 2 madde arasında kovaryans oluşturulduktan sonra analiz tekrar yapılmıştır. İkinci analiz olumlu sonuç göstermiştir. Anlamlı bir ki kare değeri elde edilmiş olsa da ($\chi2$=69,022, p=.00) CFI değeri .98, ve NFI ve TLI değerleri .97 bulunmuştur. RMSEA değeri .05 ve SRMR değeri .02 olarak raporlanmıştır. Bu analize göre ölçek doğrulanmıştır.

3.1.2 Akademik İyimserlik Ölçeği için DFA Sonuçları

Akademik İyimserlik Ölçeği'nin alt boyutlarının bir araya gelerek gizil değişken oluşturup oluşturmadığını anlamak amacıyla Doğrulayıcı Faktör Analizi yapılmıştır. Yapılan ilk analiz değerleri kriterlerin altında olduğunu göstermiştir. Bu yüzden, akademik vurgu, okula aidiyet ve de okula değer verme boyutlarının her birinde birer adet olmak üzere toplamda 3 adet kovaryans oluşturulduktak sonra analiz tekrar yapılmıştır. İkinci analiz olumlu sonuç göstermiştir. Anlamlı bir ki kare değeri elde edilmiş olsa da ($\chi2$=1305.079, p=.00) CFI değeri .93, ve NFI ve TLI değerleri .92 bulunmuştur. RMSEA değeri .06 ve SRMR değeri .06 olarak raporlanmıştır. Bu analiz sonucu bize 4 alt boyutun birlikte kullanılabileceğini ve toplamda bu boyutların akademik iyimserlik gizil değişkeninin oluşturduğunu doğrulamıştır.

3.2 Betimsel İstatistik

Araştırmada betimsel istatistikler incelenerek öncelikle aile geliri ve diğer sosyoekonomik göstergeler arasındabir paralellik bulunup bulunmadığı anlaşılmaya çalışılmıştır. Tüm bulgular aile gelirinin Türkiye bağlamında sosyoekonomik statüyü temsil edici olduğunu ortaya koymuştur.

Diğer ölçekler incelendiğinde ise lise son sınıf öğrenclerinin akademik öz-yeterlik ($\bar{X}$=3.7, *SD*=.71), öğretmenlerine güven ($\bar{X}$=3.61, SD=.95) ve okulun akademik vurgusuna dair görüşlerinin ($\bar{X}$=3.7, SD=.83) orta derecede olduğu görülmektedir. Okula aidiyet ($\bar{X}$=3.49, *SD*=1) ve okula değer verme ($\bar{X}$=3.3, *SD*=1.1) ile ilgili tutumlarının ise görece daha düşük olduğu ortaya çıkmıştır. Özellikle en dikkat çekici bulgu okula değer verme boyutundaki maddelere öğrencilerin birçoğunun olumsuz cevaplar verdiğidir. Öğrencilerin neredeyse yarısı (%49.2) okulda öğretilenlerin değersiz olduğunu ve yarısından çoğu (%53.3) okulun bir zaman kaybı olduğunu düşünmektedir.

3.3 Yapısal Eştlik Modellemesi

Bu çalışmanın amacı alanyazın temel alınarak oluştural model üzerinden öğrencilerin akademik öz-yeterlik, akademik iyimserlik, aile geliri ve akademik başarıları arasında bir ilişkinin olup olmadığını ortaya çıkarmaktır. Bu amaç doğrultusunda analiz yapılmış ve de analiz sonuçları modeli doğrulamamıştır. Buradan hareketle okula aidiyet ve akademik vurgu değişkenlerine ait anlamlı bulunmayan değerler modelden çıkarılarak veri tekrar analiz edilmiştir. Her ne kadar ilgili değişiklikler yapılmış olsa da model yine doğrulanamamıştır. Ki kare değeri anlamlı çıkmıştır (χ2=18223.953, p=.00). CFI, TLI, RMSEA ve SRMR değerleri sırasıyla .87, .85, .07 ve .09 bulunmuştur ve bu değerler kritik olarak belirtilen değerlerin altında kalmıştır (Hu ve Bentler, 1999). Genel anlamda bakıldığında ise akademik öz-yeterlik değişkeninin tüm akademik iyimserlik alt

boyutları (öğretmene güven, akademik vurgu, okula aidiyet ve okula değer verme) ve akademik başarı değişkenleri üzerinde doğrudan ve anlamlı bir etki yarattığı bulunmuştur. Bunun yanında aile geliri ile akademik vurgu dışındaki tüm akademik iyimserlik boyutları arasında anlamlı bir ilişki olduğu ve gelirin akademik başarıya doğrudan etki ettiği görülmüştür. Akademik başarı açısından bakıldığında ise akademik iyimserlik boyutlarından sadece 2 tanesinin (öğretmene güven ve okula değer verme) akademik başarı üzerinde anlamlı bir etki yarattığı ortaya çıkarılmıştır. Akademik vurgu ve okula aidiyet boyutlarının akademik başarı ile anlamlı bir ilişkisi olmadığı bulunmuştur.

Tartışma

Bu çalışmanın temel amacı akademik öz-yeterlik, akademik iyimserlik, aile geliri ve öğrenci başarısı arasındaki ilişkiyi incelemektir. Ana çalışmada incelenecek olan Akademik Öz-Yeterlik ve Öğrenci Akademik İyimserliği ölçeklerinin Türkçe'ye adaptasyonu ve akademik iyimserlik ölçeğinin 3 alt boyutunun bu bağlamda incelenmesi ise çalışmanın alt hedefini oluşturmaktadır. Bu amaç doğrultusunda ölçekler faktör analizleri ile incelenmiş ve alanyazındaki çalışmalar temel alınarak değişkenler arasındaki varsayılan ilişkiler Yapısal Eşitlik Modellemesi ile test edilmiştir.

Çalışmanda bulguları Akademik İyimserlik ölçeğinin boyutlarının Türkiye bağlamında farklı şekilde ortaya çıktığını göstermiştir. Orijinal ölçekte öğretmene güven, akademik vurgu ve okul ile özdeşleşme olarak 3 alt boyuttan oluşan akademik iyimserlik kavramının bu çalışmada 4 alt boyutu olduğu ortaya çıkmıştır. Öğretmene güven ve akademik vurgu boyutları aynı kalmakla birlikte faktör analizleri okul ile özdeşleşme boyutunun okula aidiyet ve okula değer verme olmak üzere 2 ayrı boyut olduğunun ve bu iki kavramın Türkiye bağlamında açıkça birbirinden farklı olduğunu göstermiştir. Buradan hareketle Türkiye'de öğrencilerin

bir örgüt olarak okula aidiyetlerinin ve genel olarak eğitime ve okula bakışlarının paralellik göstermediği görülmüştür.

Çalışmanın temel araştırma sorusu olan değişkenler arasındaki ilişkiyi ölçmek için ise Yapısal Eşitlik Modellemesi kullanılmıştır. İlk analizin negatif sonuç vermesi sonucu modifikasyonlar yapılmış olsadahi model doğrulanamamıştır. Modelin uyuşmamasının yanında çalışmanın sonuçlarına göre ise akademik vurgu ve okula aidiyet değişkenleri akademik başarı üzerinde bir etki yapmadığı görülmüştür ve de bu sonuç literatür ile uyuşmamaktadır (Korkmaz, 2005; Fischer vd., 2013). Bu birkaç şekilde açıklanabilir.

Öncelikle, bu çalışmada akademik başarı okul ortalamaları ile ölçülmüştür. Burada en önemli tartışma okul ortalamalarının ne derecede akademik başarıyı temsil ettiğidir. Bilindiği üzere okul ortalamaları o okulların öğretmenleri tarafından hazırlananan ve notlanan sınavlar üzerinden belirlenmektedir, ve de gerek öğretmenler gerekse okullar arası değişiklik göstermeye çok yatkındır. Bununla parallel olarak bu çalışmada okul ortalaması 79.90 olarak bulunmuştur ki bu değer OECD ülkeleri arasında birçok ülkenin gerisinde olan Türkiye için oldukça yüksek görülmektedir (OECD, 2014; 2016). Diğer bir yandan Sarıer (2010) SBS-OKS ve PISA sonuçlarını incelediği çalışmasında Ege ve Marmara bölgelerindeki öğrencilerin okul başarısının daha yüksek olduğunu göstermiştir. Buradan hareketle, çalışmanın verilerinin Ege Bölgesi'nde bulunan Manisa ilinde toplandığı düşünülürse böyle bir öğrencilerin nispeten yüksek bir not ortalamasına sahip olması çok da şaşırtıcı değildir.

Ayrıca çalışmada, alanyazındaki birçok çalışmanın aksine (Kwong ve Davis, 2015; Bahçetepe ve Giorgetti, 2015; Ali ve Siddiqui, 2016; Karadağ, İşçi, Öztekin ve Anar, 2016; Polatlı ve Abaslı, 2018) okul değişkenlerinin akademik başarı üzerinde etkisi tartışmalı görünmektedir. Aile geliri ve akademik öz-yeterlik değişkenleri mevcutken öğrenci akademik iyimserliği değişkeninin tüm boyutları başarıyı

üzerinde etkili olamamıştır. Bu bulgu Berkowitz vd. (2017)'nin SES, okul iklimi ve başarı üzerine yaptıkları çalışmada ortaya koydukları okul ikliminin nasıl tanımlandığı ve ölçüldüğünün elde edilecek sonuçlar üstünde büyük ölçüde farklılık yaratacağı tartışmasına işaret ediyor olabilir. Dolayısıyla, bu çalışmada kullanılan Hoy (2012) ve Tschannen-Moran vd. (2013)'nin kavramsallaştırdığı okul ikliminin bir parçası olan akademik iyimserlik faktörünün öğrenci seviyesinde ya da Türkiye kapsamında incelenmesinin çok da etkili olmayabileceği tartışılabilir.

Bunun yanında, akademik iyimserlik değişkeninin öğretmene güven ve okula değer verme boyutları akademik başarı ile ilişkiliyken akademik vurgu ve okula aidiyet boyutlarının başarı üzerinde anlamlı bir etkisinin olmadığı görülmüştür. Her ne kadar birçok çalışma okul iklimi ve başarı arasında anlamlı bir ilişki olduğunu gösterse de (Hoy, Hannum ve Tschannen-Moran, 1998; Sherblom, Marshall ve Sherblom, 2006; Uline ve Tschannen-Moran, 2008; Bahçetepe ve Giorgetti, 2015; Karadağ, İşçi, Öztekin ve Anar, 2016), bazı araştırmacılar farklı sonuçlar da elde etmişlerdir. Örneğin, Lee (2012) akademik vurgunun akademik başarıyı direct değil öğretmen-öğrenci ilişkisi üzerinden dolaylı olarak etkilediğini ortaya koymuştur. Benzer şekilde, Gillen-O'Neel ve Fuligni (2013) okula aidiyet değişkeninin akademik başarıyı yordamadığını fakat okula değer verme değişkeni ile son derecede anlamlı bir ilişkisi olduğunu göstermiştir. Buradan hareketle, okul iklimi değişkenlerini tek bir gizil değişken olarak bir araya getirmek yerine, çalışmanı bulgularında da görüldüğü üzere farklı değişkenlerin yol analizi ve modelleme üzerinden akademikk başarı üzerinde doğrudan ya da dolaylı olarak nasıl etki ettiğini incelemenin daha makul olduğu söylenebilir.

Dahası, genel olarak model doğrulanmış olmasa da alanyazındaki çalışmalara parallel olarak (Bandura, 1977; Zimmerman and vd., 1992; Arslan, 2016) bu çalışmada da akademik öz-yeterlik değişkeni aile geliri dahil edilse bile öğrenci başarısına etki eden en önemli faktör olarak karşımıza çıkmaktadır. Bu bulgu, Usher ve Pajares (2008)'in de ortaya koyduğu üzere SES ve okul çevresindense öğrencinin

kendi kabiliyet ve yetenekleri ile ilgili inanışlarının akademik başarı üzerinde daha etkili olduğu sonucunu doğrulamaktadır.

Son olarak, çalışmada alanyazındaki birçok çalışmanın aksine (Yelgün ve Karaman, 2015; Aslanargun, Bozkurt ve Sarıoğlu; 2016) aile gelirinin öğrenci başarısında çok da etkili olmadığı bulunmuştur. Fakat çalışmanın bu bulgusuna destekleyici araştırmalar da alanyazında mevcuttur. Örneğin, White (1982) hem de Sirin (2005) SES ve başarı arasında anlamlı fakat zayıf bir ilişki olduğuna işaret etmişlerdir. Hatta Sirin (2005) çalışmasında bu iki değişken arasındaki ilişkide bir azalma olduğunu da eklemiştir. Buna benzer olarak Türkiye bağlamında da benzer bir düşüş yaşanıyor olabileceği göz önünde bulundurulabilir.

5.1 Çıkarım ve Öneriler

Çalışmanın ana araştırma konusu olmasa da çalışmanın betimsel istatistik sonuçları aile geliri ve okul dışı kültürel ve sportif aktiviteler, internete erişim gibi eğitime direkt olarak öğrenmeye etkisi olacak kaynakları da içeren diğer sosyoekonomik göstergeler arasındaki bir ilişkinin olduğudur. Buna göre, düşük gelir grubundaki ailelerin çocukları bu kaynaklara halihazırda erişememektedir ve bu durumda Milli Eğitim Bakanlığının ve okulların farklı gelir gruplarındaki öğrenciler arasındaki bu farkı kapatmak için politikalar geliştirmesi önerilebilir. Bu politikaların özellikle teknoloji kullanımı, internete erişim ve kültürel ve spor aktiviteleri üzerine yoğunlaşması önem arzetmektedir. Nitekim, Mcdill, Natriello ve Pallas (1986) da okulların sadece akademik beklentilerini yüksek tutarak öğrenci başarısına etki edemeyeceğini ve özellikle düşük gelir gruplarından öğrencilere fazladan destek verilmesi ve kaynak sağlanması gerektiğiniöne sürmüştür.

Çalışmada bir diğer çıkarım gelir ve okul değişkenlerindense akademik öz-yeterlik değişkeninin en güçlü faktör olduğu ve de öz-yeterliğin hem başarıyı hem de okul değişkenlerine etki ettiğidir. Bu da öğrencilerin öz-yeterlik seviyelerinin okulları ve öğretmenleri hakkındaki görüşlerini de şekillendirdiği anlamına gelmektedir. Bu

yüzden, okullarda akademik başarıyı arttırmak için okul değişkenleri kadar öğrencilerin bireysel farklılıklarının da önem arzettiği söylenebilir. Buradan hareketle, okulların, ve özellikle öğretmenlerin, öz-yeterliği düşük olduğu düşünülen öğrencilerin aileleriyle iletişim halinde olması önerilebilir (Bandura vd., 1996). Bununla ilgili olarak Kuru Cetin ve Taskin (2016) her ne kadar sosyoekonomik statüsü yüksek ailelerin okullarla daha çok iletişimde olduğunu göstermiş olsa da devlet okullarında genel olarak okul ve aile arasındaki etkileşimin düşük olduğunu göstermişler, ve bu yüzden de okul-aile işbirliğinin sistemleştirilmesini savunmuşlardır.

Çalışmanın bulguları ileride yapılacak olan araştırmalar için de birkaç öneri sunabilir. Öncelikle her biri ayrı ayrı akademik başarı üzerinde etkili olan 3 farklı değişken bu çalışmada tek bir modelde incelenmiş ve aile gelirinin etkisinin düşük olduğu ve de okul değişkeni olarak incelenen öğrenci akademik iyimserliğinin tüm boyutlarının başarıyı arttırmada etkili olmadığı bulunmuştur. Buradan hareketle, ilk olarak başarı üzerine olan çalışmalarda çok yönlü ve hiyerarşik modelleri kullanan çalışmaların arttırılması önerilebilir. İkinci olarak ise Türkçe'ye adaptasyonu yapılan Öğrenci Akademik İyimserliği ölçeğinin boyutlarının ne derecede anlamlı olduğu farklı çalışmalarla incelenmelidir.

Çalışmada model doğrulanmasa da ikili korelasyon sonuçları öğretmene güven, akademik vurgu, okula aidiyet ve okula değer verme değişkenlerinin aile geliri ve akademik öz-yeterlikten daha zayıf yordayıcılar olduğunu göstermiştir. Bu sonuçlara bakarak okul kültürü/iklimi çalışmalarının Türkiye kapsamında tekrar değerlendirilmesi gerektiği öne çıkmaktadır. Okulun öğrenci başarısı üzerindeki başarısı göz ardı edilemeyeceğinden Türkiye'deki okullara özgü unsurların neler olduğu ve bu unsurların nasıl analiz edilmesi ve ölçülmesi gerektiği konularının da tartışılması gereklikiği ortaya çıkmaktadır. Bunu yapmak için ise nicel ve yabancı ülkelerden uyarlanmış ölçekleri kullanmak yerine okul iklimi ve kültürü çalışmalarında öncelikle nitel çalışmalara ağırlık vermek gerekecektir.

Son olarak çalışmanın betimsel bulguları tüm akademik iyimserliği boyutları arasında okula değer verme boyutunun en düşük ortalamaya sahip olduğunu göstermiştir. Hatta öğrencilerin neredeyse yarısı okulda öğretilenlerin gereksiz olduğu ve okulun bir zaman kaybı olduğunu düşünmektedirler. Böyle bir sonuç öğrencilerin okula ve genel olarak eğitime karşı olumsuz bir tutum sergilediklerini göstermektedir. Hem eğitim yönetimi ve planlaması hem de eğitim programları ve öğretim dallarındaki araştırmcılar için böyle bir bulgunun farklı çalışmalarla daha detaylı incelenmesi gerektiği söylenebilir. Bandura vd. (1996) ebeveynlerin eğitime verdiği değerin öğrenci akademik öz-yeterliği üzerinden öğrenci başarına etkisi olduğunu ortaya koymuştur. Bu bulgu üzerinden de öğrencinin okula verdiği değer üzerine yapılacak çalışmaların sadece okul bağlamında değil aile değişkenini de ekleyerek analiz edilmesi önerilebilir.

F. Tez İzin Formu/ Thesis Permission Form

TEZ İZİN FORMU / THESIS PERMISSION FORM

ENSTİTÜ / INSTITUTE

Fen Bilimleri Enstitüsü / Graduate School of Natural and Applied Sciences ☐

Sosyal Bilimler Enstitüsü / Graduate School of Social Sciences ■

Uygulamalı Matematik Enstitüsü / Graduate School of Applied Mathematics ☐

Enformatik Enstitüsü / Graduate School of Informatics ☐

Deniz Bilimleri Enstitüsü / Graduate School of Marine Sciences ☐

YAZARIN / AUTHOR

Soyadı / Surname : Şenay
Adı / Name : Hanife Hilal
Bölümü / Department : Eğitim Bilimleri

TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English) : THE RELATIONSHIPS AMONG ACADEMIC SELF-EFFICACY, ACADEMIC OPTIMISM, FAMILY INCOME AND ACADEMIC ACHIEVEMENT

TEZİN TÜRÜ / DEGREE: **Yüksek Lisans** / Master ■ **Doktora** / PhD ☐

1. **Tezin tamamı dünya çapında erişime açılacaktır. /** Release the entire work immediately for access worldwide. ■
2. **Tez iki yıl süreyle erişime kapalı olacaktır.** / Secure the entire work for patent and/or proprietary purposes for a period of **two year. *** ☐
3. **Tez altı ay süreyle erişime kapalı olacaktır.** / Secure the entire work for period of **six months**. ***** ☐

***** *Enstitü Yönetim Kurulu Kararının basılı kopyası tezle birlikte kütüphaneye teslim edilecektir. A copy of the Decision of the Institute Administrative Committee will be delivered to the library together with the printed thesis.*

Yazarın imzası / Signature ..... **Tarih** / Date .....

SKB-SA02/F01 Rev:03 06.08.2018