



The Direct and Indirect Role of School Attitude Alienation to School and School Burnout in the Relation between the Trust in Teacher and Academic Achievements of Students *

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Abstract

The present study aimed to examine the relationships between the variables of trust in the teacher, attitudes towards the school, alienation from school, and school burnout and the relationship between these variables and the academic achievement of high school students. The sampling of the study consisted of 2.291 students who were determined with the Stratified Random Sampling Method by considering the gender and grade levels of the students who were studying at Anatolian high schools in Battalgazi District of Malatya province. In the study, a data collection tool that include five scales was used as the data collection instrument. The first part of the data collection tool that was used in the study included the demographic information, the second part included the "Maslach Burnout Inventory-Student Form (MBI-SF)", the third part included the "School Attitude Assessment Survey", the fourth part included the "Student Alienation Scale," and the fifth part included the "Trust in Teacher Scale." The study data were analyzed by structural equation modeling. In the research, ten hypotheses were developed for the test model based on the theoretical knowledge and for the three models developed as an alternative to the first model. Conducted analyses demonstrated that eight hypotheses were accepted and two were rejected. As a result of the analysis of the model created in the current study using the structural equation model, it was determined that trust in teacher, attitudes towards the school, alienation of the school and school burnout variables directly or indirectly predicted the academic achievement of the students. Trust in the teacher, attitudes towards the school, alienation from the school, and school burnout variables explained 12% of the variance in academic achievement together.

Keywords

High school students
Academic achievement
Trust in the teacher
Attitudes towards the school
School burnout

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Introduction

The school is a social service organization that provides planned and scheduled education and instruction services for a certain group of people for a certain period of time, in a certain space based on specific role structure and specific objectives (Şişman & Turan, 2004). School organizations are open systems (Lunenburg & Ornstein, 2013). From the perspective of the system theory, the school organization processes the inputs via certain operations and releases outputs into the environment (Aydın, 2007). Students, who are the most important input in the school organization, become the output of the school system by acquiring certain knowledge, skills, behavior and values (Bursalioglu, 2010).

The outputs of the school system are indicators used to decide whether the school objectives have been achieved. Some of these indicators are student achievement (Lunenburg & Ornstein, 2013; Sezgin, 2013), job satisfaction, absenteeism, drop-out rate and general quality. Student achievement can be considered as a criterion that can be used to determine whether organizational objectives were achieved in all educational organization types and levels. Academic achievement can be defined as the level of achievement of educational goals in an educational institution such as a school (Aduke, 2015).

Previous studies revealed that there are several individual and societal factors that affect the academic achievement of the students. One of these factors is the quality of the relationships among school stakeholders. Multidimensional human relations are intensively experienced in educational organizations (Aydın, 2007; Bursalioglu, 2010). These relationships include the relationship patterns among the teachers, students, parents and school administrators. Schools are institutions where human element is prominent and relationships and interactions are more intense. Trust is one of the important concept in the initiation and maintenance of human relations both in schools and in social life. Teachers are important individuals in the lives of students (Oktay, 1995). For this reason, as a result of the interaction that is established between the teacher and the student(s), trust appears for teacher(s) in the student(s). Trust relations between teachers and students are one of the necessary elements for the learning and academic achievement of students (Goddard, Salloum, & Berebitsky, 2009; Goddard, Tschannen-Moran, & Hoy, 2001; Lee, 2007). Anderson (2008) stated that trust in teachers affected the attitudes of students towards school.

Another variable that could have an effect on the academic achievement of the students is the attitudes towards the school. Attitudes are hidden or explicit beliefs that affect individual behavior and decisions (Turner & Battle, 2008). Attitudes are not formed at once. The formation of attitudes takes a long time and attitudes exhibit a steady structure (Cüceloğlu, 2014). Student attitudes are a tendency that students adopt as a result of their experiences at the school and that guides their emotions, thoughts and behavior about the school in positive and negative dimensions. Cheng & Chan (2003) stated that attitudes towards the school had certain properties such as positive thoughts about the school, considering the school as a fun environment, feeling a sense of belonging to the school, and participating in school activities.

Attitudes towards the school have a significant impact on the student's school experiences and educational outcomes (Sever, Ulubey, Toraman, & Türe, 2014). Academic achievement is among these outcomes (Arul, 2002; McCoach, 2002). It is expected that students, who develop a positive attitude towards the school, would exhibit behavior such as being successful at school, actively participating in school activities, completing assignments on time, being in school on time, and avoiding absenteeism. On the other hand, students, who develop negative attitudes towards the school, would possibly exhibit behavior such as failure, failure to attend school, absenteeism, failure to complete school assignments and tasks, disruption of the course integrity in the classroom, and damaging the school property. Thus, the attitudes of the students towards the school also affect their alienation from the school (Çağlar, 2012; Kulka, Kahle, & Klingel, 1982) and school burnout (Özdemir & Özdemir, 2015).

Studies on burnout are more about professional life. When describing burnout in students, who are a stakeholder in educational institutions, Lee et al. (2010) based their argument on the assumption

that student activities can also be considered as a job. Researchers indicated the signs of school burnout as exhaustion due to academic demands, development of negative attitudes towards the school and school activities, and a perception of inadequacy. Academic burnout or school burnout can be considered as a process, which is caused by the student's lack or inadequacy of capital required by academic studies and the inconsistencies between the student's expectations and the expectations of his / her parents, his/her teachers and his/her friends (Freudenberger & Richelson, 1981; Kutsal & Bilge, 2012).

One of the problems that can be observed in students with high burnout level is alienation from the school. The indicators of alienation are the student behavior that distances or isolates the school and school activities, student's inability to make sense of the school, to abide by school rules, and emotions of weakness to conduct the school activities. Kunkel, Thampson, and Mcelhinney (1973) identified the conditions that caused students to alienate from the school as the inability to associate the school activities and those in the outside world, the intolerance of teachers, the inadequate parental support in the school affairs, the strictness of the school rules, and the lack of the students' control on their own lives. Alienation is an influential concept on the academic achievements of the students. It is stated that as the alienation increases, the academic achievement of students is negatively affected (Ghaith, 2002; Şimşek & Katıtaş, 2014).

When the studies conducted in the literature were examined, the following results were determined on the variables that were dealt with in the scope of the present study. Students' trusts in their teachers affects their attitudes towards the school (Lee, 2007), alienation to school (Goddard et al., 2001), school burnout (Moore, 2013), and academic achievement (Adams, 2014). It was also determined that students' attitudes towards school had effects on alienation to school (Travis, 1995), school burnout (Seçer, 2015) and academic achievement (Lamb & Fullarton, 2002). It was determined that students' alienation to school affects school burnout (Yun-Chen & Lin, 2010) and academic achievement (Roeser, Lord, & Eccles, 1994). School burnout of students is one of the variables affecting the academic achievement of students (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002). In this context, in the context of the present study, the relations between the trust in teachers, attitudes towards school, school burnout and alienation, which affect the academic achievements of students, and the relations between academic achievement were examined by using the Structural Equation Modeling. Using the Structural Equation Modeling in the scope of the present study provided the opportunity to test the relations between the variables at the same time. It is possible to argue that examining different variables that were used in the literature in the context of this study together will allow the evaluation of the variables in an integrity.

Research Hypotheses

The variables that affect the academic achievements of the students and the correlations between these variables were investigated in the present study with the Structural Equation Model. Thus, the research hypotheses and related studies in the literature can be listed as follows: H1: *Trust in teachers is a significant predictor of the attitudes towards the school* (Lee, 2007), H2: *Trust in teachers is a significant predictor of the alienation from the school* (Demirtaş, Özer, Han, & Atik, 2017; Goddard et al., 2001), H3: *Trust in teachers is a significant predictor of the school burnout* (Moore, 2013), H4: *Trust in teachers is a significant predictor of academic achievements* (Anderson, Christenson, Sinclair, & Lehr, 2004; Goddard et al., 2001), H5: *Attitude towards the school is a significant predictor of alienation from the school* (Çağlar, 2012; Demaray & Malecki, 2002; Dennison, 2000), H6: *Attitude towards the school is a significant predictor of school burnout* (Seçer, 2015), H7: *Attitude towards the school is a significant predictor of academic achievement* (Berberoğlu & Balcı, 1994; Cheng & Chan, 2003; Erkman, Caner, Sart, Börkan, & Şahan, 2010; Ford & Harris, 1996; McCoach & Siegle, 2003), H8: *Alienation from the school is a significant predictor of school burnout* (Huang & Lin, 2010; Jia, Rowlinson, Kvan, Lingard, & Yip, 2009), H9: *Alienation from the school is a significant predictor of academic achievement* (Kocayörük, 2007; Roeser et al., 1994), H10: *School burnout is a significant predictor of academic achievement* (Balkıs, Duru, Buluş, & Duru, 2011; Çapulcuoğlu & Gündüz, 2013; Kutsal, 2009; Schaufeli et al., 2002).

Method

Research Model

The present study is a relational research that aimed to determine the correlations between academic achievements of high school students, their level of trust in their teachers, their attitudes towards the school, alienation from the school and school burnout. Relational studies examine the correlation between two or more variables and causality between these variables (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2013; Creswell, 2012). Structural Equation Model (SEM), one of the analysis methods used in relational studies, was used to determine the correlations between the variables in the present study. The Structural Equation Model (SEM), which allows the analysis of several variables, is a statistical technique that allows to model the causality between determined variables, and to analyze the effects of customized models on each other collectively, and to assess the correlation between the variables in the established model with calculated partial parameters (Vieira, 2011).

Population and Sample

The study population included the secondary school students attending 11 Anatolian High Schools in Battalgazi Central District of Malatya Province during the 2015-2016 academic year. Vocational Technical High Schools and Imam Hatip High Schools were not included in the scope of the study because their objectives, functioning and student profiles in these schools were relatively different from Anatolian High Schools. The sample of study was determined with using stratified sampling technique from the population schools. In the study sample, gender and grade levels were considered as layers.

One of the methods that is employed to determine the sampling size in structural equation modeling is the method that was proposed by Jackson (2003). In this method, Jackson (2003) reported that working with a sampling that is as large as “20-fold” of the observed variables in constructing structural equation model produced reliable results. In this context, since the number of the observed variables used in the study was fifty-one (51) [trust in teacher=12, attitude towards school=6, alienation to school=17, burnout=15, academic achievement=1]; conducting the study with 1020 students is appropriate according to Jackson (2003). However, Kline (2010) reported that increasing the sampling size in structural equation modeling would give better results. For this reason, it was found appropriate to conduct the study with a larger sampling.

The fall semester grades of the students attending the study classrooms where the application will be conducted were obtained from the e-school system. The fall semester grade of students was used as an academic achievement variable within the scope of the research. The applications were conducted based on a voluntary participation. In the study, 2400 data collection forms were applied to the students. Certain forms were eliminated before the analysis and certain forms were eliminated during the analysis phase and the analysis was conducted on the remaining 2291 data collection forms. The data collected from the 2291 students in the sample are presented in Table 1.

Table 1. Study Population and Sample Analysis

Layer	Population		Sample		
	n	%	n	%	
Gender	Female	3714	45.6	1052	45.9
	Male	4416	54.4	1239	54.1
	Total	8130	100	2291	100
Grade	9th Grade	2050	25.2	590	25.7
	10th Grade	1845	22.6	525	22.9
	11th Grade	1977	24.3	567	24.7
	12th Grade	2258	27	609	26.7
	Total	8130	100	2291	100

As shown in Table 1, 1052 (45.9%) students in the sample were female and 1239 (54.1%) were male. When the distribution of the students in the sample presented in Table 1 is examined based on their grade levels, it can be observed that 590 (25.7%) were in the ninth (9th) grade, 525 (22.9%) were in the tenth (10th) grade, 567 (26.7%) were in the eleventh (11th) grade and 609 were in the twelfth (12th) grade.

Data Collection Tools

In the study, a data collection tool that included five scales was used as the data collection instrument. The first part of the data collection tool included the demographic information (gender, grade level, school number), the second part included the "*Maslach Burnout Inventory-Student Form (MBI-SF)*", the third part included the "*School Attitude Assessment Survey*", the fourth part included the "*Student Alienation Scale*," and the fifth part included the "*Trust in Teacher Scale*." Each scale is detailed in the following section.

Maslach Burnout Inventory – Student Form (MBI-SF): The Maslach Burnout Inventory-Student Form (MBI-SF), developed by Maslach and adapted to university students by Schaufeli et al. (2002), includes three dimensions (Exhaustion, Cynicism and Proficiency) and 15 items. The validity and reliability study for this version of the scale for high school students in Turkey was conducted by Kutsal (2009). In the present study, a second level confirmatory factor analysis was conducted on the master data for the Maslach Burnout Inventory - High School Student Form. The fit indices for the second level confirmatory factor analysis were found as follows: $\chi^2 = 385.24$, $sd = 133$, $\chi^2 / sd = 2.89$, $GFI = .93$, $AGFI = .91$, $NFI = .95$, $NNFI / TLI = .96$, $IFI = .95$, $CFI = .96$, $RMSEA = .043$, $RMR = .032$, and $SRMR = .041$. It was found that the Cronbach Alpha internal consistency coefficient was .70 in the present study.

School Attitude Assessment Survey: The School Attitude Assessment Survey developed by McCoach (2002) is a scale that includes the attitudes toward the school, academic self-perceptions, motivation/self-regulation, and peer relations subscales. The adaptation, validity and reliability studies of this scale in Turkish culture were conducted by Parmaksızoğlu-Cebenoyan (2008). In the present study, the attitudes towards the school subscale of School Attitude Assessment Survey was used. The Attitude Toward the School Survey included 6 items. In this study, CFA was conducted on the main data for the Attitude Towards the School Survey. The fit indices for the confirmatory factor analysis were as follows: $\chi^2 = 3.78$, $sd = 2$, $\chi^2 / sd = 1.89$, $GFI = .98$, $AGFI = .96$, $NFI = .99$, $NNFI / TLI = .99$, $IFI = .98$, $CFI = .99$, $RMSEA = .027$, $RMR = .025$, and $SRMR = .032$. The Cronbach Alpha internal consistency coefficient for the present study was .90.

Student Alienation Scale: The "Student Alienation Scale" was developed by Sanberk (2003). The scale includes four sub-dimensions: Weakness (4 items), Incoherency (5 items), Irregularity (5 items) and Social Distance (3 items). In this study, second level confirmatory factor analysis was conducted on the Student Alienation Scale using the actual data. The fit indices for the second level confirmatory factor analysis were as follows: $\chi^2 = 151.84$, $sd = 52$, $\chi^2 / sd = 2.92$, $GFI = .95$, $AGFI = .93$, $NFI = .95$, $NNFI / TLI = .95$, $IFI = .96$, $CFI = .96$, $RMSEA = .052$, $RMR = .043$, $SRMR = .045$. The Cronbach Alpha internal consistency coefficient for the present study was .72.

Student Trust in Teachers Scale: The Student Trust in Faculty Scale developed by Adams and Forsyth (2009) was adapted to Turkish by Özer & Tül (2014). The one-dimensional and 12-item structure of the scale was verified using Confirmatory Factor Analysis and it was reported by the researchers that the fit indices were consistent with the values accepted in the literature. In the present study, Confirmatory Factor Analysis for Student Trust in Teachers Scale was performed with the actual data. The fit indices for the Confirmatory Factor Analysis were as follows: $\chi^2 = 13$, $sd = 9$, $\chi^2 / sd = 1.44$, $GFI = .98$, $AGFI = .97$, $NFI = .98$, $NNFI / TLI = .98$, $IFI = .98$, $CFI = .98$, $RMSEA = .058$, $RMR = .038$, $SRMR = .021$. The Cronbach Alpha internal consistency coefficient in the study was .93.

Data Analysis

While analyzing the data within the scope of the research, firstly it was checked whether the data set was correct or not, the missing data was corrected by considering the relevant data form. Then the data set was examined for missing data. As a result of the review, it was determined that 67 data forms contained missing data. After these data were removed, an outlier analysis was conducted on the dataset and it was determined that 12 participant data were outliers as a result of the analysis. After the data forms with outliers were removed from the dataset, the dataset contained 2321 forms. Raw scores should be converted to standard scores in order to compare the data collected from different groups (Baykul & Güzeller, 2013). In this context, academic achievement scores were converted to z-scores for each grade in order to compare the academic achievement scores of students in different classes. Univariate and multivariate normal distribution controls of the dataset were conducted to implement the Structural Equation Model. The assumption of univariate normality for the dataset is based on the assumption that the skewness and kurtosis values are between +1 and -1 and the z scores are between +3 and -3 (Çokluk, Şekercioğlu, & Büyüköztürk, 2010). As a result of the analysis, the data for 30 participants that did not meet these assumptions were removed and the analysis was conducted on the remaining 2291 data forms. Multivariable normality analysis was conducted to determine whether the dataset had a multivariate normal distribution and the results are presented in Table 2.

Table 2. Multivariate Normality Analysis

Variable	Skewness	c.r.	Kurtosis	c.r.
TT	-.118	-2.311	-.832	-8.133
SAT	.011	.217	-.846	-8.266
SA	.705	13.779	-.306	-2.986
SB	.534	10.442	.156	1.527
AA	.118	2.315	-.346	-3.385
Multivariate			.632	1.807

(TT: Trust in Teacher, SAT: School Attitude, SB: School Burnout, SA: School Alienation, AA: Academic Achievement, c.r.: critical ratio)

Based the results of the multivariate normality analysis (Table 2), it can be argued that the dataset met the multivariate normality assumptions (multivariate kurtosis: ".632", multivariate c.r.: 1,807). During this analysis phase, multivariate kurtosis value should be between +2 and -2 and multivariate critical ratio should be below 1.96 (Bayram, 2010). Deciding whether the structural equation model should be a one-stage or multi-stage model. In the present, Structural Equation Model was solved with a two-stage approach considering that there were fifty (51) observed variables, which would challenge the analysis otherwise. Çelik and Yılmaz (2013) stated that the measurement model and the structural model should be analyzed separately in the two-stage approach and that the first step of the two-stage approach could be considered as CFA. Thus, Confirmatory Factor Analysis (CFA) was conducted as the first step of the two-step approach in the present study and the analysis results are presented in the "Data Collection Instruments" section. When the estimation method was determined at this stage of the analysis, it was based on the fact that the dataset exhibited multivariate normal distribution and the maximum likelihood method, which is widely used in cases where the dataset exhibits multivariate normal distribution (Kline, 2010) was used.

Results

In the present study, structural equation model was used to analyze the correlations between students' trust in teachers, school attitudes, school alienation, and school burnout variables that directly or indirectly affect the achievements of high school students and the correlations between these variables and academic achievement. The results of the descriptive analysis conducted on the variables are presented in Table 3.

Table 3. Descriptive Analysis Results, Correlation Coefficients Among the Variables

	●	Sd	min	max	1.	2.	3.	4.
1.TT	37.51	12.49	12	60	1.00			
2.SAT	22.49	9.37	6	42	.65	1.00		
3.SA	38.86	17.41	17	85	-.38	-.33	1.00	
4.SB	47.27	18.21	15	105	-.42	-.43	.35	1.00
5.AA	72.94	10.03	39.55	98.22	.16	.13	-.24	-.32

(TT: Trust in teachers, SAT: School Attitude, SB: School Burnout, SA: School Alienation, AA: Academic Achievement)

As shown in Table 3, it was determined that there was a moderately significant positive correlation between trust in teachers and attitudes towards the school ($r = .654, p < .05$), and a negative correlation between trust in teachers and school alienation ($r = -.384, p < .05$), there was a moderately significant negative correlation between trust in teachers and school burnout ($r = -.422, p < .05$) and a significantly low positive correlation between trust in teachers and academic achievement ($r = .163, p < .05$).

In Table 3, it was found that there was a moderate negative significant correlation between attitude towards the school and school alienation ($r = -.336, p < .05$), and a negative moderate significant correlation between school attitude towards the school and school burnout ($r = -.439, p < .05$), a low positive significant correlation between the attitude towards the school and academic achievement ($r = .136, p < .05$), a positive moderate significant correlation between school alienation and school burnout ($r = .355, p < .05$), a negative low significant correlation between school alienation and school achievement ($r = -.248, p < .05$), and a moderate negative significant correlation between school burnout and academic achievement ($r = -.320, p < .05$).

Furthermore, Table 3 demonstrated that the academic achievement of the students varied between "39.55" and "98.22", and the standard deviations of the variables in the study varied between "9.37" and "18.21". The absolute correlation coefficient between the variables was interpreted as a weak correlation below ".30", intermediate correlation between ".30" and ".70", and strong correlation above ".70" (Cronk, 2008).

Analysis Results for The First Model

As a result of the analysis conducted on the first model (Figure 1) based on the theoretical study model, the program calculated the χ^2 value and the degree of freedom as "0" (zero). This model is called "the Saturated Model" (Byrne, 2010). In other words, the chi-square value indicated that the proposed model was not fit for the observed data (Avçılar & Varinli, 2013). Table 4 presents the regression coefficients and their significance.

Table 4. 1st Model Analysis Findings

Correlations between the variables		B	β	S.E.	C.R.(t)	p	
SAT	<---	TT	.491	.654	.012	41.413	***
SA	<---	TT	-.118	-.287	.010	-11.321	***
SA	<---	SAT	-.081	-.148	.014	-5.849	***
SB	<---	TT	-.087	-.178	.012	-7.294	***
SB	<---	SB	-.165	-.254	.016	-10.603	***

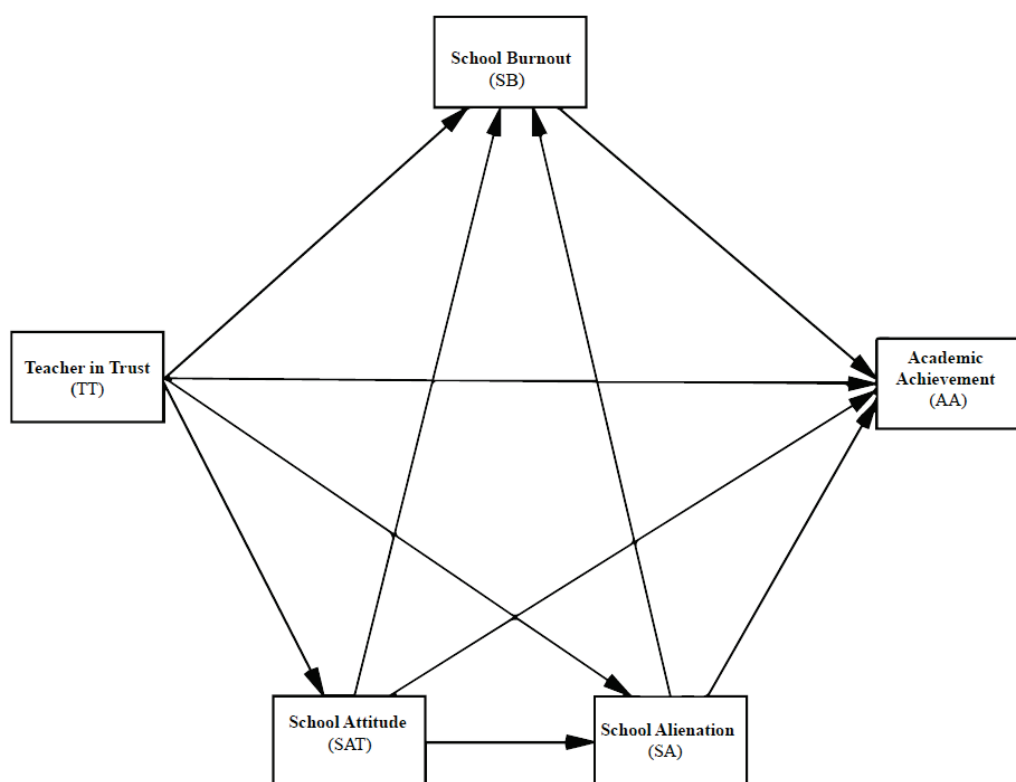
Table 4. Continued

Correlations between the variables			B	β	S.E.	C.R.(t)	p
SB	<---	SA	.238	.201	.023	10.240	***
AA	<---	SB	-.045	-.279	.004	-12.270	***
AA	<---	SA	-.030	-.159	.004	-7.303	***
AA	<---	TT	.002	.019	.002	.715	.475
AA	<---	SAT	-.005	-.053	.003	-1.974	.048

$\chi^2=.00$; $sd=.00$ (***) $p<.05$)

TT: Trust in teachers, SAT: School Attitude, SB: School Burnout, SA: School Alienation, AA: Academic Achievement

In Table 4, it can be observed that the correlation between the trust in teachers (TT) and academic achievement (AA) was not significant ($t = .715$; $p > .05$). Based on this finding, the fourth research hypothesis (H4: *Trust in teachers is a significant predictor of academic achievements*) was rejected.

**Figure 1.** The First Model

Analysis Results for The Second Model

The path between the "Trust in Teachers" and "Academic Achievement" was deleted and the model was renewed and analyzed based on the findings obtained in the analysis of the First Model. Analysis findings demonstrated that the path between the attitude towards the school (OCT) and academic achievement (AB) was not significant ($t = -1,894$; $p > .05$). The software calculated the χ^2 value and the degree of freedom as "0" (zero). Based on the Chi square fitness test, the structural equation model was not fit for explaining the sample covariance structure (Avcılar & Varinli, 2013). Thus, the seventh research hypothesis was rejected (H7: *Attitude towards the school is a significant predictor of academic achievement*).

Analysis Results for The Third Model

The path between the "School Attitude" and "Academic Achievement" was deleted and the model was renewed based on the findings obtained in the analysis of the Second Model. The findings of the analysis conducted on the third model are presented in Table 5.

Table 5. 3rd Model Analysis Findings

Correlations between the variables			B	β	S.E.	C.R.(t)	P
SAT	<---	TT	.491	.654	.012	41.413	***
SA	<---	TT	-.118	-.287	.010	-11.321	***
SA	<---	SAT	-.081	-.148	.014	-5.849	***
SB	<---	TT	-.087	-.178	.012	-7.294	***
SB	<---	SAT	-.165	-.254	.016	-10.603	***
SB	<---	SA	.238	.201	.023	10.240	***
AA	<---	SB	-.043	-.266	.003	-12.687	***
AA	<---	SA	-.029	-.154	.004	-7.338	***

$\chi^2=4.094$; $sd=2$ (** $p<.05$)

TT: Trust in teachers, SATT: School Attitude, SB: School Burnout, SA: School Alienation, AA: Academic Achievement

The findings presented in Table 5 demonstrated that that all paths in the third model were significant ($p<.05$). Thus, as a result of the analyses conducted in the study, it can be stated that the third model was the final model in the study. It was determined that 8 hypotheses among the 10 structural equation models constructed in the study were accepted and 2 were rejected (H4: *Trust in teachers is a significant predictor of academic achievements* and H7: *Attitude towards the school is a significant predictor of academic achievement*). One of the criteria used to determine whether a model constructed with the structural equation model is accepted after the tests is the goodness of fit value obtained in the analysis (Byrne, 2010; Kline, 2010). The goodness of fit values for the final model are presented in Table 6.

Table 6. Goodness of Fit (GF) Index Results for the Final Model

GF Index	Acceptable fit	Good fit	Calculated GF Values
χ^2/sd	$2 \leq \chi^2/sd \leq 5$	$0 \leq \chi^2/sd < 2$	2,047 (Acceptable fit)
GFI	$.90 \leq GFI < .95$	$.95 \leq GFI \leq 1.00$.99 (Good fit)
AGFI	$.85 \leq AGFI < .90$	$.90 \leq AGFI \leq 1.00$.99 (Good fit)
NFI	$.90 \leq NFI < .95$	$.95 \leq NFI \leq 1.00$.99 (Good fit)
NNFI/TLI	$.95 \leq NNFI < .97$	$.97 \leq NNFI \leq 1.00$.99 (Good fit)
IFI	$.90 \leq IFI < .95$	$.95 \leq IFI \leq 1.00$.99 (Good fit)
CFI	$.95 \leq CFI < .97$	$.97 \leq CFI \leq 1.00$.99 (Good fit)
RMSEA	$.05 \leq RMSEA \leq .08$	$0 \leq RMSEA < .05$.02 (Good fit)
RMR	$.05 \leq RMR \leq .08$	$0 \leq RMR < .05$.08 (Acceptable fit)
SRMR	$.05 \leq SRMR \leq .08$	$0 \leq SRMR < .05$.008 (Good fit)

(Bayram, 2010; Brown, 2006; Çelik & Yılmaz, 2013; Harrington, 2009; Hu & Bentler, 1999; Kline, 2010; Schermelleh-Engel, Moosbrugger, & Müller, 2003; Sümer, 2000; Şimşek, 2007).

The fitness index values for the final structural equation model confirmed in Table 6 indicated that the RMR (.08) with χ^2 / sd (2.047) values exhibited acceptable goodness of fit, while GFI (.99), AGFI (.99), NFI (.99), NNFI / TLI (.99), IFI (.99), CFI (.99), RMSEA (.02) and SRMR (.008) were found to reflect "good fit". The final model confirmed with the conducted analyzes is presented in Figure 2.

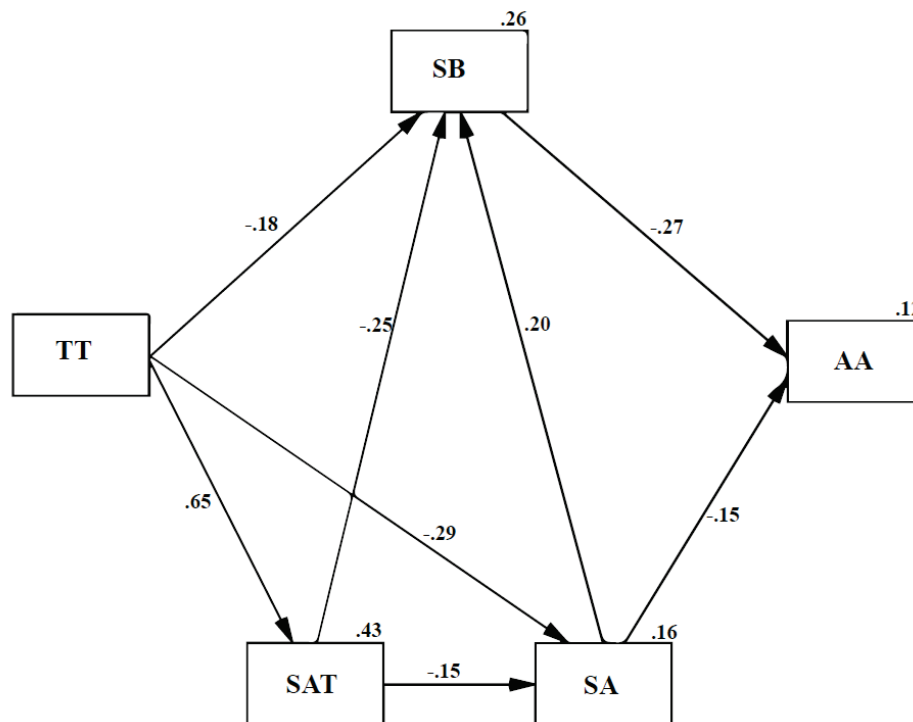


Figure 2. Path diagram for the final model, standardized path (regression) and determination coefficients (R^2)

(TT: Trust in Teachers, SAT: School Attitude, SB: School Burnout, SA: School Alienation, AA: Academic Achievement)

In the structural equation model presented in Figure 2, it can be observed that the main dependent (endogenously-predicted) variable was academic achievement (AA) and the remaining variables directly or indirectly predicted academic achievement. Trust in teachers (TT) statistically significantly and directly and positively predicted the attitude towards the school (SAT) ($\beta = .65$; $t = 41.413$; $p < .05$), directly and negatively predicted the school alienation (SA) ($\beta = -.29$; $t = 11.321$; $p < .05$) and directly and negatively predicted the school burnout ($\beta = -.18$, $t = -7.294$, $p < .05$). Trust in teachers (TT) explained about 43% of the variance in the attitude towards the school (SAT).

Based the final model, it was determined that the attitude toward the school (SAT) statistically significantly and directly and negatively predicted school alienation ($\beta = -.15$; $t = -5.849$; $p < .05$), and directly and negatively predicted school burnout (SB) ($\beta = -.25$; $t = -10.603$; $p < .05$). Furthermore, both in the correlation between trust in teachers (TT) and school alienation (SA), and in the correlation between the trust in teachers (TT) and school burnout (SB), school attitudes played a mediation role.

It was determined that school alienation (SA) statistically significantly and directly and negatively predicted school burnout (SB) ($\beta = .20$; $t = 10.240$; $p < .05$) and directly and negatively predicted academic achievement (AA) ($\beta = -.15$; $t = -7.338$; $p < .05$). School alienation played a mediation role both in the correlation between trust in teachers (TT) and academic achievement (AA) and between the correlation between school attitude (SAT) and academic achievement (AA). Students' trust in teachers and school attitude explained about 16% of the variance in the school alienation.

School burnout (SB) had a statistically significant and direct negative effect on academic achievement (AA) ($\beta = -.27$; $t = -12.687$, $p < .05$). School burnout (SB) played a mediation role in the correlation between school alienation (SA) and academic achievement (AA). School burnout played a mediation role in the correlation between trust in teachers and academic achievement and the correlation between school attitude and academic achievement. Trust in teachers explained 26% of the variance in the attitude towards the school, school alienation and school burnout. In the final model,

trust in teachers, school attitude, school alienation and school burnout endogenous variables explained about 12% of the variance in academic achievement exogenous variable.

Direct and indirect effects on the final model

In the interpretation of the results of the structural equation model analysis, direct and indirect effects were utilized. The standardized direct effects and the indirect effects for the variables in the Structural Equation Model (the total effect) are shown in Table 7.

Table 7. The Bootstrap Analysis Results of the Effects of the Final Model

Routes	Bootstrap values		Bias 95% GA**	
	Coefficient	SH*	Lower Limit	Upper Limit
<i>Direct effect</i>				
Trust in teacher → Attitude Towards School	.65	.01	.62	.68
Trust in teacher → Alienation to School	-.29	.02	-.33	-.23
Trust in teacher → School Burnout	-.18	.02	-.23	-.12
Attitude Towards School → Alienation to School	-.15	.02	-.20	-.09
Attitude Towards School → School Burnout	-.25	.02	-.30	-.20
Alienation to School → School Burnout	.20	.02	.15	.24
Alienation to School → Academic Achievement	-.15	.02	-.19	-.11
School Burnout → Academic Achievement	-.27	.02	-.30	-.22
<i>Indirect effect</i>				
To teacher Trust → Alienation to School	-.09	.01	-.13	-.06
To teacher Trust → School Burnout	-.24	.01	-.27	-.20
To teacher Trust → Academic Achievement	.17	.01	.15	.19
Attitude Towards School → School Burnout	-.03	.00	-.04	-.01
Attitude Towards School → Academic Achievement	.09	.01	.07	.12
Alienation to School → Academic Achievement	-.05	.00	-.06	-.04

*Standard Error, ** Trust Range

As seen in Table 7, when the bootstrapping coefficients and the trust ranges of these coefficients were examined, it was determined that the direct and indirect routes were significant. In addition, Attitude Towards School acted as an intermediary in the relation between trust in teacher and Alienation to School and in the relation between trust in teacher and School Burnout. Alienation to School acted as an intermediary in the relation between the trust in teacher and Academic Achievement, and in the relation between Attitude Towards School and Academic Achievement. School burnout acted as an intermediary in the relation between Alienation to School and Academic Achievement. School Burnout acted as an intermediary both in the relation between trust in teacher and Academic Achievement and in the relation between attitude towards school and Academic Achievement.

Discussion and Conclusion

The education system is implemented at schools. One of the major outputs of schools is the achievements of the students (Lunenburg & Ornstein, 2013). In the present study, the relationships between high school students' trust in teachers, school attitudes, school alienation and school burnout, which are effective on academic achievement and the effects of these variables on academic achievement were examined by structural equation model. The theoretically model was confirmed, and goodness of fit model obtained with the analyses evidenced that the model was acceptable.

The results of the descriptive analysis conducted on the study variables are presented below. It was determined that

- There was a moderate and positive correlation between school attitude and trust in teachers,
- There was a moderate and negative correlation between school alienation and trust in teachers,

- There was a moderate and negative correlation between school burnout and trust in teachers,
- There was a low and positive correlation between academic achievement and trust in teachers,
- There was a moderate and negative correlation between school alienation and school attitude,
- There was a moderate and negative correlation between school burnout and school attitude,
- There was a low and positive correlation between academic achievement and school attitude,
- There was a moderate and positive correlation between school burnout and school alienation,
- There was a low and negative correlation between academic achievement and school alienation,
- There was a moderate and negative correlation between academic achievement and school burnout.

The findings obtained by the descriptive analyzes conducted in the study can be interpreted as follows: the improvement in level of students' trust in their teachers would positively affect their attitudes towards the school and their academic achievements, reduce their alienation from the school and school burnout. As the positive attitudes of the students towards their school increase, their academic achievements would improve, and their school alienation and school burnout would reduce. Students who are alienated from the school would experience more school burnout and the academic achievements of students with high levels of school alienation and school burnout would be low.

The first research hypothesis was "trust in teachers is a significant predictor of the attitudes towards the school ". This hypothesis was accepted as the result of the conducted analyses. The school is an organization, where multifaceted human relationships are experienced. One of these relationships is teacher-student relations (Aydın, 2007). Based on the student outcomes, one of the most strategic parts of the school organization is the teachers (Bursalioglu, 2010). Teachers are important individuals in the students' lives following their families. It can be argued that the relationship established between the teacher and the student is extremely important for the future of the student. Oktay (1995) stated that the teacher's willingness to follow up the instructions of the students and adaptation to the school are influential on the personality development of the student. The teacher-student relationship plays an important role in creating students' trust in teachers. Rotter (1967) reported that trust is an important factor in human learning. Thus, it can be stated that students' trust in teachers is an important factor in their learning. Relations based on trust between the teacher and the student can help the students to develop positive attitudes towards the school and the courses and solving problems at school (Özer & Tül, 2014).

It can be argued that the trust in teacher-student relationship would affect the students' attitudes towards the school (Ehman, 1977; Lee, 2007). The present study findings demonstrated that the students' trust in teachers directly affects their attitudes towards the school and explains about 43% of the variance in their attitudes towards the school. Teachers play a role in the students' attitudes toward the school. The teacher-student relationship and low volume of homework assigned by the teacher and positive feedback on these assignments, creation of a supportive classroom environment by the teacher are important for students to develop positive attitudes towards the school (Evertson & Emmer, 2013).

The second research hypothesis was "trust in teachers is a significant predictor of the alienation from the school". The hypothesis was accepted as the result of the conducted analyses. The learning environment that the teacher would create in the classroom and the class climate affect the students' trust in teachers. Students' trust in teachers is also among the sources of students' alienation from the school (Goddard et al., 2001). The previous study findings demonstrated that the increase in the students' trust in teachers would decrease their school alienation (Demirtaş et al., 2017; Stevenson, 2008). The present study findings demonstrated that trust in teachers directly and negatively predicted school alienation. Furthermore, it was also found that the trust in teachers indirectly predicted school alienation via the attitude towards the school.

The third research hypothesis was "trust in teachers is a significant predictor of the school burnout". The hypothesis was accepted as the result of the conducted analyses. Trust is built in the long term as a result of the relationship between the teacher and the student (Forsyth, Adams, & Hoy, 2011). Trust in teachers affects several concepts related to the life at school (Hoy, Gage, & Tarter, 2006; Hoy & Tschannen-Moran, 2007). One of these concepts is the students' school burnout (Moore, 2013).

The present study findings demonstrated that trust in teachers directly and negatively predicted school burnout. Furthermore, the study findings revealed that the trust in teachers indirectly predicted school burnout via school attitudes and alienation variables. Lee et al. (2010) stated that the matters related to the students can be considered as a job and described school burnout as the development of exhaustion and negative attitudes towards the school and school activities and a sense of incompetency due to academic demands. There are several reasons for the school burnout that the students experience. These reasons include stress and pressures due to school tasks and responsibilities (Aypay, 2012), environmental expectations (Kutsal & Bilge, 2012), extreme study requirements, sense of self-inadequacy (Schaufeli et al., 2002), the competition-based exams (Çapulcuoğlu, 2012) and excessive course schedules in Turkey.

The fourth research hypothesis was "trust in teachers is a significant predictor of academic achievement". The hypothesis was rejected as a result of the conducted analyses. Previous studies reported that trust in teachers predicted the academic achievements of students (Forsyth et al., 2011; Tschannen-Moran, 2004). However, the present study findings showed that trust in teachers did not directly affect academic achievement, but the effect was indirect via school burnout and alienation. A study conducted by Romero (2015) also found that trust in teachers did not directly affect the academic achievement, but its impact was indirect. According to this finding, students trust in their teachers has significant consequences such as burnout and alienation, which have decisive effects on students' educational experiences. In the literature, there are studies showing that students who experience burnout and alienation exhibit more absenteeism and exhibit more unwanted behaviors in and around school (Hascher & Hagenauer, 2010; Meier & Schmeck, 1985; Salmela-Aro & Upadyaya, 2014; Virtanen, Lerkkanen, Poikkeus, & Kuorelahti, 2018). It is expected that students who exhibit such negative behaviors will have lower academic achievement. In this point, trust in teacher-student relationships can be considered as an important variable in terms of both students behavior and academic achievement.

The fifth research hypothesis was "attitude towards the school is a significant predictor of alienation from the school". The hypothesis was accepted as a result of the conducted analyses. It can be stated that the attitudes that students developed towards the school have several consequences in their educational lives. The attitudes of students towards the school influence their alienation from the school (Travis, 1995). The present study findings also demonstrated that the students' attitudes towards the school predicted school alienation. Furthermore, trust in teachers and attitudes towards the school explained about 16% of the variance in school alienation.

To reduce students' alienation from the school, certain practices such as demonstrating moderate attitudes rather than rigid attitudes towards the school rules and regulations, conducting more entertaining and student-centered education and instruction activities, to involving the students in the decision making process at school, developing more flexible exam system regulations, and getting to know the individuals better to guide them to attend more suitable schools.

The sixth research hypothesis was "attitude towards the school is a significant predictor of school burnout." The hypothesis was accepted as the result of the conducted analyses. Previous studies conducted with students reported that the attitude towards the school had several many positive and negative outcomes. One of the negative results obtained in these studies demonstrated that the school burnout level of the students with negative attitude towards the school was higher (Seçer, 2015). The present study demonstrated that students' attitudes towards the school influenced their school burnout directly and negatively. Furthermore, it was concluded that the attitude towards the school indirectly

predicted school burnout via school alienation. Trust in teachers, attitudes towards the school, and school alienation explained about 26% of the variance in school burnout.

The seventh research hypothesis was "attitude towards the school is a significant predictor of academic achievement". The hypothesis was rejected as a result of the conducted analyses. The attitudes of the students towards the school are one of the factors that affect their academic achievement (Cheng & Chan, 2003; Erkman et al., 2010; Ford & Harris, 1996; McCoach & Siegle, 2003; Tatar, 2006). The present study findings demonstrated that attitudes of the students towards the school did not directly affect the academic achievements but had an indirect effect via school alienation and burnout variables. School burnout and alienated students' attitudes towards school are expected to be more negative. Students' attitudes towards school are formed as a result of their school experiences. In this context, it can be said that trust-based relationships between teachers and students should be developed in order for students to have positive feelings and thoughts about the school and to exhibit positive behaviors.

The eighth research hypothesis was "*alienation from the school is a significant predictor of school burnout*". The hypothesis was accepted as the result of the conducted analyses. Several studies in the literature reported various negative consequences of school alienation of the students (Sanberk, 2003). Research has revealed that one of these adverse consequences was school burnout (Huang & Lin, 2010; Jia et al., 2009). The present study findings determined that school alienation predicted the school burnout directly and positively. In other words, it can be argued that school burnout level of the students with high school alienation levels was high as well. It was also determined that trust in teachers indirectly affected alienation from school through attitudes towards school. According to this finding, it can be said that trust-based relations between teachers and students lead to more positive attitudes of students towards school.

The ninth research hypothesis was "alienation from the school is a significant predictor of academic achievement". The hypothesis was accepted as the result of the conducted analyses. The attitudes and behavior of the teachers in classroom and the school are among the factors that lead to the alienation of the students from the school (Şimşek & Katıtaş, 2014). In a study conducted by Roeser et al. (1994), it was found that the academic achievement levels of alienated students were lower when compared to the students who did not feel alienated. School alienation could lead to several negative consequences such as violence, absenteeism, substance abuse and failure (Kocayörük, 2007). The present study demonstrated that students' alienation to the school directly and negatively predicted their academic achievements.

The tenth research hypothesis was "school burnout is a significant predictor of academic achievement". The hypothesis was accepted as the result of the conducted analyses. The school burnout of the students that occur due to several school-related activities, tasks and responsibilities are considered to be among the factors that affect academic achievement (Balkıs et al., 2011; Schaufeli et al., 2002). The present study concluded that school burnout directly and negatively affects the academic achievement of the students. Previous studies reported that school burnout leads to several negative consequences (Aypay, 2012; Salmela-Aro, Kiuru, Pietikäinen, & Jokela, 2008; Lee et al., 2010; Kutsal, 2009; Salmela-Aro, Savolainen, & Holopainen, 2009). One of these negative consequences is the decrease in the academic achievements of the students (Çapulcuoğlu & Gündüz, 2013).

The analysis of the model constructed in the present study with structural equation model demonstrated that the variables of trust in teachers, school attitude, school alienation, and school burnout directly or indirectly predicted students' academic achievements. Trust in teachers, school attitude, school alienation, and school burnout explain about 12% of the variance in academic achievement. Academic achievement; considering that it is affected by many factors such as individual, familial and school environment, it can be stated that the rate of variance explanation at this level is an important result. The abovementioned finding can be considered significant with respect to academic achievement, which is a phenomenon that could be predicted by various factors.

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