PRINT: ISSN 0972-0073 ONLINE: ISSN 2456-6802
Anthropologist, 20(1,2): 50-61 (2015)
DOI: 10.31901/24566802.2015/20.1-2.06

The Relationship between Students' Engagement Level and Their Attitudes Toward School[1]

K. Funda Nayir

Cankiri Karatekin University, Faculty of Art, Department of Educational Sciences, Cankiri, Turkey
E-mail: fnayir@yahoo.com

KEYWORDS Authentic Engagement. Ritual Engagement. Passive Compliance. Rebellion. Retreatism. Student Attitudes

ABSTRACT The purpose of the study was to investigate the relationship between high school students' engagement level and their attitudes toward school. A relational research model was utilized to determine this relationship. Additionally, an effort was made to develop a scale. Participants in this study included 370 high school students studying in the center of Cankiri, Turkey. An additional 350 students participated in the development of the scale. Research data was analyzed through exploratory factor analysis [EFA], Cronbach's alpha coefficient, item-total correlations, two half reliability analysis and confirmatory factor analysis [CFA]. Furthermore, descriptive statistics, mean and standard deviation, t-test, ANOVA and regression analysis were conducted using a step-by-step method. The research findings of this study determined that there was a relationship between students' engagement level and their attitudes toward school.

INTRODUCTION

The core elements of the educational system are its schools, teachers and students. The main task of the school is to provide high quality educational services for all students. In order to achieve this high level of service, all parties involved must play their own very important roles. This includes the school administrators, classroom teachers, and ultimately the students. In terms of the effectiveness of the learning and teaching processes, the engagement of students plays a very important role. During the process of teaching and learning, teachers and students depend on one another and interact almost symbiotically. For these interactions, teachers should plan and provide activities that capture their students' attention and encourage the students to actively participate during the learning process. However, when planning such activities, it is not only important but necessary to have an understanding of the level of students' engagement. Having knowledge of students' engagement level plays an essential role during the lesson planning process for teachers.

Address for correspondence:
Dr. K.Funda Nayir
Cakiri Karatekin Universitesi,
Edebiyat Fakultesi Egitim Bilimleri Bolumui,
Cankiri, Turkey
Telephone: +90 (376) 254 12 05
E-mail: fnayir@yahoo.com

When the literature regarding student engagement was examined, two different perspectives were recognized (Nystrans and Gamaron 1992, cited by Chapman 2003). According to the first perspective, student engagement is defined as "students' participation with desire, need, and internal motivation" (Bomia et al. 1997) or "students being eager to participate in school activities such as attending to school, doing homework, and following instructions given by teachers" (Chapman 2003). According to this perspective, student engagement is related to "participation in school related processes" (Chapman 2003). In summary, student engagement can be defined as eager participation in school-related activities including school attendance, fulfilling assigned tasks, and listening to teacher instructions.

In the other perspective it is posited that student engagement is made up of three dimensions: emotional, behavioral and cognitive (Fredrics et al. 2004). In behavioral engagement, students attend school, do assignments, and put forth effort in their classroom activities (Sinclair et al. 2003). In emotional engagement, if students react emotionally to teachers, classmates, academics, and school, they feel a sense of belonging to the school. Furthermore, they feel safe in their environment, and they show commitment to their teachers (Fredrics et al. 2004). In the cognitive engagement dimension, students have belief in their abilities and have confidence that their pro-

ficiencies will be acknowledged by teachers (Sinclair et al. 2003). In this perspective student engagement is seen as intentional "participation in the learning process" (Chapman 2003). As a result, student engagement can be defined as students being aware of their abilities, being emotionally attached to school, and intentionally participating in school activities.

When these two perspectives are examined, it can be seen that although there are differences between the two, there are also important similarities. For example, it is possible to say that a student's intrinsically motivated engagement in school-related activities also means that the student has developed his/her behavioral dimension. Therefore, the behavioral dimension of student engagement exists in both perspectives. As a result, it can be stated that behavioral engagement occurs as a basis of student engagement. Furthermore, it can be concluded that students' emotional and cognitive engagement takes place following behavioral engagement.

Student engagement is not directly observable (Schlechty 2001). A genuine effort must be made to attend to their learning activities (Kuh 2009). Student engagement, is defined as students having a sense of belonging to school, accepting school values and genuinely participating in school activities (Willms 2003, as cited by Saeed and Zyngier 2012), which ultimately facilitates their learning (Turner and Patrick 2004). It also causes students to have real involvement in the process of learning and understanding (Newman 1996; cited by Saeed and Zyngier 2012), and often improves their academic achievement (Marks 2000). Student engagement is one of the most well-established predictors of achievement; when students are more engaged in academic instruction, they tend to have greater academic and social success (Harboura et al. 2015). Concentrating on their homework and daily lessons is an indication that teachers have achieved their goals and that students are actively engaged in learning. Students who participate in the learning process have a variety of traits, such as caring about and giving value to their lessons and being enthusiastic about their work. Even when faced with difficulties while completing given tasks, the students continue to work and find personal value and meaning from their efforts (Schlechty 2001). However, during the learning process, the same educational activities may elicit varying responses from students. While some students may exhibit interest and are participatory during learning, other students may exhibit boredom and show passivity (Marks 2000). Therefore, it is apparent that the level of student engagement during the learning process varies between students.

According to Schlechty (2001), student engagement is described as the concentration and value given to the learning task by the student. The five levels of engagement include authentic engagement, ritual engagement, passive compliance, retreatism, and rebellion. These levels are described below (Schlechty 2001).

In *authentic engagement,* the student perceives involved activities as being personally meaningful, exhibits a high level of interest, and perseveres when he/she encounters difficulties. The student believes that assigned tasks are challenging and will encourage them to think, as well as believe they can accomplish these tasks. Students displaying authentic engagement retain what they have learned and transfer their learning gains to new areas. Also, they demonstrate high levels of comprehension and understanding.

In the level of *ritual engagement,* students follow the teacher's directions and complete the assigned lessons, but they do not place personal value in completing these tasks. The motivation for students derives not from their own personal expectations, but instead for extrinsic rewards, such as family approval, gaining respect, and passing their exams. The level of skill retention is lower among students with ritual engagement, and, therefore, they often cannot transfer what they have learned to new learning environments. In addition, they may learn information ata higher cognitive level but it is only superficially retained.

In the *passive compliance* level, since students' efforts hold little meaning, they exhibit the least amount of effort necessary for completing assigned tasks and often pay as little attention as possible to details. Students exhibiting passive compliance engagement cannot retain what they have learned and rarely transfer newskills to new learning environments. Furthermore, they learn information at a lower cognitive level and have only a superficial understanding.

In the *retreatism* level, students reject classroom activities, learning objectives, and the necessary tools to achieve goals. Additionally, they pull themselves away emotionally. These stu-

dents have low levels of confidence toward completing what is expected of them, as well asa lack of belief that academics are related to their lives. As a result of their failing to participate in learning activities, the students exhibitwithdrawal behavior and often accomplish very little learning.

Students in *rebellion* refuse to participate in the classroom activities and learning objectives. Instead, these students establish their own idiosyncratic goals. Sometimes in order to achieve their personal objectives they cheat and force teachers to hold them to a lower standard for completing assignments. Students exhibiting rebellion toward classroom activities either learn very little or nothing at all. At times they learn skills related to their own motives, which rarely produce a desired result. Rebellious students exhibit poor working habits and develop negative attitudes toward formal schooling.

Engagement includes psychological and behavioral characteristics (Marks 2000), and it is an active process (Schlechty 2002). Fully participating students have an intrinsic motivation for achieving success and reaching their goals. Also, they are willing and eager to demonstrate these behaviors (Jablon and Wilkinson 2006). Students who were deeply engaged in an authentic learning task described an intrinsic passion about what they were learning (Deakin Crick 2014: 77). Related studies discovered that lack of motivation to participate in classroom activities is an important factor leading to student problems, such as boredom in class, reluctance to learn, attention deficiency, general distraction, and not understanding the connection between school learning and real life. Another serious issue related to their lack of motivation in classroom activities is school truancy (Reeve et al. 2004). Therefore, in order for students to fully participate in classrooms they must already be active. However, it is a fallacy to hold the expectation that all students will participate in classroom activities at a level of authentic engagement. Students may display symbolic engagement in order to receive a high grade or gain approval from their teacher. As a result, even though students are actively participating in classes, it is important to be aware of their true level of classroom engagement.

Attitude can be described as the tendency of the individual to have negative or positive response toward persons or objects. In other words, attitude reflects the emotion an individual holds toward particular persons and/or objects (Balci 2005). It is considered that a student's attitude toward school will either positively or negatively affect academic success (Tatar 2006; Valiente et al. 2008). The academic achievement of students who possess a negative attitude of school, who do not enjoy attending school, who have extreme dislike of school, and exhibit truant behavior cannot be expected to be high as the students with a positive attitude toward school. The academic achievement of students who love school, enjoy attending school, and regard education as important should be higher then students with negative attitudes (Alici 2013).

As a result, students loving school and believing in the importance of attending school can be expected to have a high level of student engagement. Additionally, students' engagement level is considered to be associated with their attitude toward school. If students'engagement level is high, it can increase a positive attitude toward school, thus improving academic achievement.

Aim

The aim of this study was to reveal the relationship between students' level of engagement and their attitudes toward school. For this purpose, answers to the following research questions were sought.

1. What do students think about their level of classroom engagement?
2. Do students' views of the level of classroom engagement differ meaningfully based on the variables of gender, class, or number of students in the classroom?
3. Is there a significant relationship between students' classroom engagement level and their attitude toward school?
4. Is students' classroom engagement level a significant predictor of their attitudes toward school?

MATERIAL AND METHODS

Research Design

In this study, a relational research model was utilized to investigate the relationship between high school students' level of school engagement and their attitudes toward school. In order to better determine the students' level of engagement, a scale was also developed by the researcher for this purpose.

Research Sample

The participant population for this study was composed of high school students from schools located in the center of Cankiri, Turkey. A representative sample of Cankiri, Turkey was determined to be 370 students. Also, in developing the scale, an additional 350 students received scales. As a result, a total of 597 scales were utilized in this investigation. The gender percentage of the research population were 66 percent male (n=393) and 33 percent female (n=198).

Data Collection Instruments and Procedures

In order to collect research data, a five-point Likert-type scale consisting of three sections was administered. In the initial section, demographic information was queried from participants. The second section included questions measuring students' level of classroom engagement. Finally, the third section of the scale included questions measuring the students' attitudes toward school. In order to accurately determine the level of students' classroom engagement the researcher developed a "Student Classroom Engagement Scale" [SCES], which consisted of five levels including authentic engagement, ritual engagement, passive compliance, retreatism, and rebellion. During the development of the scale the related research literature was thoroughly reviewed, and scale items were prepared based on the information gathered. Furthermore, five experts were queried regarding their opinion relating to the content validity of scale items. Following the expert review, the scale was revised according to their suggestions. The finalized SCES included 34 items and was administered to all research participants.

As part of the initial stage of the scale development, confirmatory factor analysis [CFA] was employed to authenticate the five-factor structure of the scale (Brown 2006). As a result, following the first analysis, Item 13 was removed from the scale, because it did not have a significant t-value. Repeated CFA verified that CFA was (χ^2 = 1126.20; p = 0.00, sd = 424, χ^2 /sd = 2.66) and fit index was IFI = .94, RFI = .88, RMR = .015, GFI = .81, AGFI = .780, CFI = .94, NNFI = .937, NFI = .89 and RMSEA = .071.

In order to test the research scale's validity, exploratory factor analysis [EFA] was conducted with 300 scales. To begin, KMO and Bartlett's test of sphericity were utilized with KMO = .915, the results of Bartlett's test of sphericity [X^2 = 3170.651; P<.01], and a significance level of .000 group size was accepted as sufficient. As a result, the data was considered suitable for factor analysis (Green and Salkind 2008) and EFA was continued. Following analysis, it was recognized that the scale was structured in three sections. The scale was re-analyzed based on the varimax rotational technique with the assumption of having three factors and there being no relationship among the factors (Brown 2006: 31). In analysis, factors with more than .35 load value are preferred. As a result, Items 9, 12, 13, 31, and 34 were removed from the scale, because each item had a load factor value of less than .35. Additionally, Item 22 was also removed because it was a repeated item. The eigenvalues of the scale's structure are given in Figure 1.

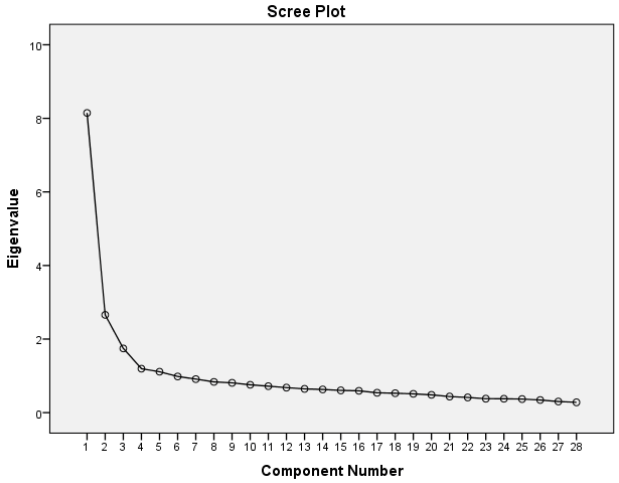


Fig. 1. Graph of the eigenvalues

Results from analysis of the remaining 28 scale items revealed that item factor load value for the first factor ranged from .378 to .712; the second factor ranged from .473 to .725, and the third factor ranged from .371 to .659. The variance explained by the first factor was 17.13 percent, for the second factor 14.30 percent, and the third factor 13.20 percent. Overall, the total variance was 44.82 percent.

Each of the SCES sub-factors consisted of three factors. The internal consistency coefficient alpha and item-total correlations were calculated as an indicator of reliability. Consequently, the item-total correlations for the first factor ranged from .433 to .668, the second factor ranged from .436 to .654, and the third factor ranged from .292 to .623. According to Ozdamar (2004), the total item correlation should be greater than 25 and not be negative. For this study, the lowest item-total correlation was .299. At this point, items were analyzed in order to find out under which factors they occurred. The levels of withdrawal and rebellion among participants were found under the first factor, authentic engagement was found under the second factor, and ritual engagement was found under the third factor. Although, the first CFA confirmed a structure with five dimensions as supported in the research literature, the results of EFA revealed a scale structure of three factors. Based on classifications from the related literature, the first factor was labeled "rebellion", the second factor labeled "authentic", and the third factor "ritual engagement". To determine if the scale verified a three-factorial structure, the CFA process was repeated.

As a result of analysis, the chi-square value of fit indices was found to be (χ^2 = 699.94; p = 0.00, sd = 347, χ^2/sd = 2.01) and fit indexes wereIFI = .96, RFI = .91, RMR = .064, GFI = .86, AGFI = .83, CFI = .96, NNFI = .95, NFI = .91 and RMSEA = .059. The factor structure and standardized values related to the scale are provided in Figure 2.

When the error variances of observed variables were examined in Figure 2, it was identified that Items 8 and 11 had a high error variance (.93). However, a significant t-value was obtained for these items. As a result, Items 8 and 11 were not removed from the model.

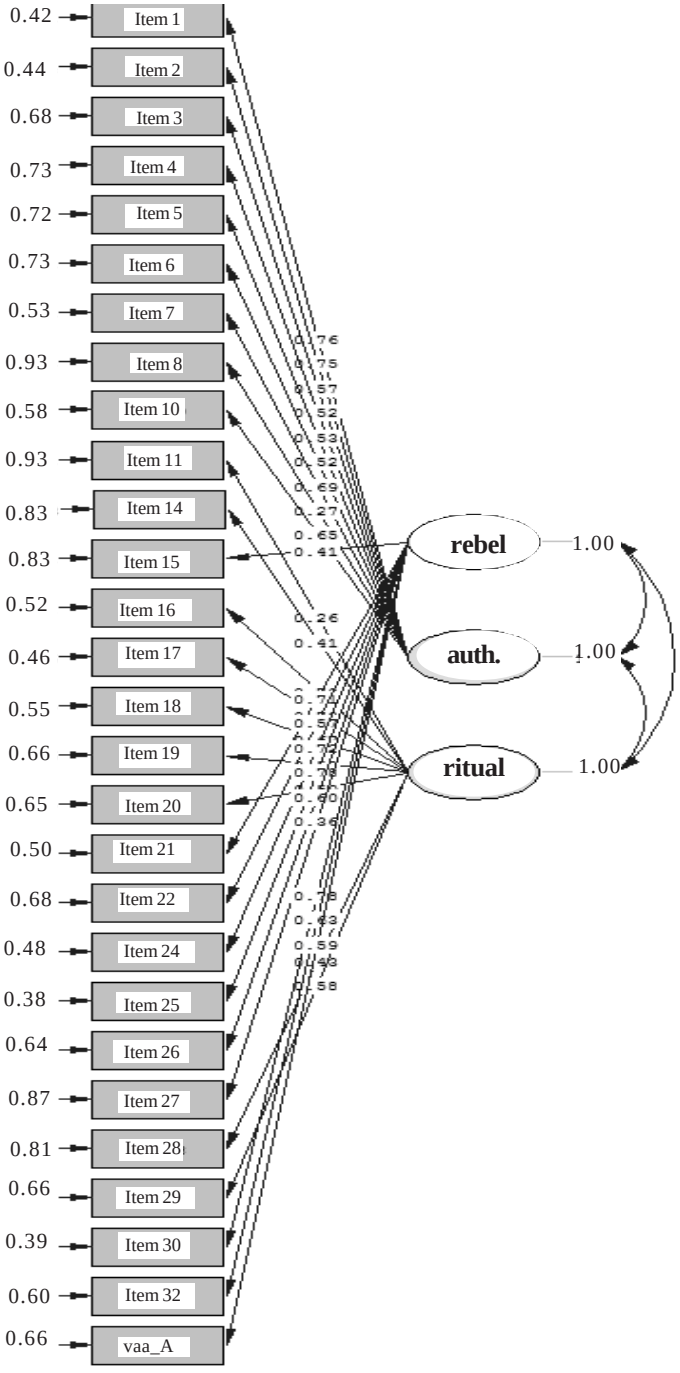
Cronbach's alpha and split-half reliability were performed to insure the scale's reliability. Accordingly, Cronbach's alpha co-efficiency for the whole scale and for each factor were .78, .86, .83, and .81 respectively. For the reliability of the scale, split-half reliability, in which data was divided into two equal parts to examine the consistency between the parts (Secer 2013 :174), was utilized. As a result, Spearman Brown coefficient was calculated as .85 for the first factor, .81 for the second factor, and .83 for the third factor. Following examination of Cronbach's alpha values for each factor of the first and the second halves; the values were .82 and .70 for the first factor, .77 and .63 for the second factor, and .71 and .63 for the third factor. The split-half reliability analysis for the whole scale revealed that the Cronbach's alpha value for the first and second halves were .85 and .84. Also, the Spearman Brown coefficient was .78.

In order to determine the attitudes of students toward school, the "Scale of Attitudes toward School", with three factors which was developed by Alici (2013), was used with permission. This scale is composed of three factors including "school as a barrier to personal development", "school as supportive of personal development" and "school as an entity to be longed for ". The Cronbach's alpha coefficient for the whole scale and the factors were 0.91, 0.87, 0.81, and 0.79 respectively.

Data Analysis

During data analysis, the first step was an analysis of the extreme value. This was completed in order to verify whether data had normal distribution. As a result, any data that was identified as an outlier was removed from the data set. The distribution of data was determined to be normal and the study was ultimately conducted with a total of 596 data items. Furthermore, during analysis the data set was randomly divided into two halves: CFA was used in analysis of 296 data, while EFA was used to analyze the remaining 300 items.

During the scale development phase, the following were utilized in order to thoroughly analyze the data: exploratory factor analysis [EFA], Cronbach's alpha co-efficiency, item-total correlations, the split-half reliability analysis and confirmatory factor analysis [CFA]. Also, to determine students' engagement levels these variables were used: descriptive statistics, the arithmetic mean, and standard deviation. Additionally, t-test and ANOVA were employed to determine whether there was significant difference among students' views. A correlation analysis was used



Chi-square=699.94, df=a47, P-value=0.00000, RMSEA=0.069

Fig. 2. SCES factor analysis model (Standardized Values)

in determining the relationship between students' classroom engagement level and their attitude toward school. Finally, in order to uncover which variables predict this relationship, stepwise regression analysis method was utilized.

FINDINGS

Most students in the level of rebellion stated that they completed school assignments only because it was a requirement. Also, they commented that they are usually very bored during classroom activities. The arithmetic mean of this level was calculated at 2.67.

Conversely, for the level of authentic engagement, students' most frequent responses were: "I am doing whatever to complete classroom assignments," and "I am very much interested in course related activities." The arithmetic mean of this level was calculated at 2.65.

For the level of ritual engagement the most frequent responses were: "I pay very little attention to details of classroom activities," and "I am having difficulty translating my learned information to new learning situations." The arithmetic mean of this level was calculated at 2.27.The t-test results on whether students' views differed based on gender are provided in Table 1.

According to the analysis illustrated in Table 1, there was a significant difference between students' opinions relating to the levels of rebellion [$t_{(297)} = 2.38$; $p<0.05$] and ritual engagement [$t_{(297)} = 3.06$; $p<0.05$]. Compared to the female students' opinions, the male students participated more often at the level of rebellion and ritual engagement. In the dimension of authentic engagement, there was not a significant difference between students' opinions based on the gender variable.

According to the mother's education level, there was no significant difference found among students' opinions regarding their level of classroom engagement. Analysis results of students' opinions based on school types are provided in Table 2.

According to the analysis results illustrated in Table 2, students' opinions exhibited a significant difference in the level of ritual engagement [$F_{(3-296)} = 6.63$; $p<.05$]. In order to better determine the cause of this difference, a Scheffe test

Table 1: Result of *t*-test on students' engagement levels based on gender variable

Dimensions	*Variable*	*Categories*	*N*	$\overline{X}$	*Ss*	*Sd*	*T*	*P*
Rebellion	Gender	Female	133	25.31	9.83	297	2.38	.018
		Male	166	27.87	8.74			
Authentic engagement	Gender	Female	133	24.01	5.70	297	.46	.64
		Male	166	24.31	5.74			
Ritual engagement	Gender	Female	133	19.03	7.10	297	3.06	.002
		Male	166	21.64	7.46			

Table 2: ANOVA results related to classroom participation level based on school variable

Factors	*Groups*	*N*	*x*	*Ss*	*Sd*	*F*	*P*	*Significant Difference (Scheffe)*
Rebellion	1. High School of Science	40	28.62	8.70	3.296	2.31	.077	
	2. AnatolianHigh School	101	26.82	9.13				
	3. Vocational High School	111	27.17	9.59				
	4. Religious Vocational High School	101						
Authentic	1. High School of Science	40	26.19	4.99	3.296	2.35	.072	
Engagement	2. AnatolianHigh School	101	23.94	5.50				
	3. Vocational High School	111	24.15	6.33				
	4. Religious Vocational High School	48	23.08	4.84				
Ritual	1. High School of Science	40	22.35	7.58	3.296	6.63	.000	2-1
Engagement	2. AnatolianHigh School	101	18.18	6.52				2-3
	3. Vocational High School	111	22.20	7.68				
	4. Religious Vocational High School	48	19.69	7.10				

was performed. According to this test, students in high schools of sciences and vocational high schools had more positive opinions compared to students from the Anatolian high schools. The analysis results of students' opinions according to the income variable are provided in Table 3.

According to the analysis results provided in Table 3, students' opinions from the level of rebellion varied significantly [$F_{(3-287)} = 2.70$; $p<.05$]. According to the Scheffe test, which was performed to determine the reasons for variation, those students with family income higher than 3001 Turkish liras [TL] exhibited higher frequency of engagement in the level of rebellion then students whose family income was between 0 - 1000 TL.

Regression analysis results demonstrating whether students' classroom engagement level predicted the variable "school as a barrier to personal development," are provided in Table 4.

The results also verified a moderate relationship ($R = .365$, $R^2 = .0133$) between the dimension "school as a barrier to personal development" of students' attitude toward school and the variables of rebellion and authentic engagement. These two variables explain about 13 percent of the total variance in the dimension "school as a barrier to personal development."

When the bilateral and partial correlations between predicting and predicted variables were analyzed, a negative and low-level relationship ($r = .331$) was identified between the dimension of school as a barrier to personal development and the rebellion level. However, when other variables were controlled for, then the relationship between the two variables was determined to be $r = -.255$. There is a negative and low-level relationship ($r = -.275$) between the school as a barrier to personal development dimension and the authentic engagement level. However, when other variables were controlled for, the relationship between the two variables was determined to be $r = -.162$.

According to the standardized regression coefficients (β), the relative importance of predicting variables for the school as a barrier to personal development dimension, indicated rebellion and authentic engagement. When t-test results regarding significance of regression coefficients were examined, these variables were seen as significant predictors of the school as a barrier to personal development dimension.

Table 3: ANOVA results on classroom participation level based on income variable

Factors	*Groups*	*N*	*x*	*Ss*	*Sd*	*F*	*P*	*Significant Difference (Scheffe)*
Rebellion	1. Between 0-1000 Turkish Liras	92	28.88	9.54	3.287	2.70	.045	1-4
	2. Between 1001-2000 Turkish Liras	82	26.98	8.99				
	3. Between 2001-3000 Turkish Liras	79	27.67	8.81				
	4. 3001 Turkish Liras or More	38	29.56	9.74				
Authentic	1. Between 0-1000 Turkish Liras	92	23.74	6.29	3.287	.497	.685	
Engagement	2. Between 1001-2000 Turkish Liras	82	24.11	5.42				
	3. Between 2001-3000 Turkish Liras	79	24.41	5.37				
	4. 3001 Turkish Liras or More	38	25.01	5.62				
Ritual	1. Between 0-1000 Turkish Liras	92	20.68	8.05	3.287	.287	.835	
Engagement	2. Between 1001-2000 Turkish Liras	82	20.28	7.16				
	3. Between 2001-3000 Turkish Liras	79	221.40	6.59				
	4. 3001 Turkish Liras or More	38	21.40	8.44				

Table 4: Predicting school as a barrier to personal development dimension according to classroom participation levels

Predictors	*B*	*Standard error B*	*â*	*T*	*p*	*Bilateral r*	*Partial r*
Rebellion	-.069	.016	-.263	4.43	.000	-.331	-.249
Authentic engagement	-.072	.026	-.167	2.82	.005	-.275	-.162
Fixed	48.049	.601		79.91	.000		

$R = .365$ $R^2 = 0.133$ $F_{(1;298)} = 22.782$ $p=.000$

Regression analysis results regarding whether students' classroom engagement level predicted the, "school as a supportive of personal development" dimension of students' attitudes toward school, are provided in Table 5.

There is a moderate relationship (R = .511, R^2 = .261) between the dimension "school as a supportive of personal development" of students' attitude toward school and the variables of rebellion and authentic engagement. These two variables explain about 26 percent of the total variance in the dimension of school as a supportive of personal development.

When the bilateral and partial correlations between predicting and predicted variables were analyzed, a positive and moderate relationship (r = .473) was identified between the dimension of school as a supportive of personal development and the authentic engagement level. However, when the other variable was controlled for, the relationship between the two variables was determined to be r = .330.

A negative and low-level relationship exists between the school as a supportive of development dimension and the rebellion level (r = .330). However, when the other variable is controlled for, then the relationship between the two variables was determined to be

r = -.193.

According to the standardized regression coefficients (β), the relative importance of predicting variables for the school as a supportive of personal development dimension was authentic engagement and rebellion. When t-test results regarding significance of regression coefficients were examined, these variables were also seen as significant predictors of the school as a supportive of personal development dimension.

Regression analysis results regarding whether students' classroom engagement level predicted "school as an entity to be longed for" dimension of students' attitudes toward school are provided in Table 6.

There is a moderate relationship (R = .351, R^2 = .123) between the dimension "school as anentity to be longed for" of students' attitude toward school and the variables of rebellion, authentic engagement, and ritual engagement. These variables explain about 12 percent of the total variance in the dimension of school as an entity to be longed for.

When the bilateral and partial correlations between predicting and predicted variables were analyzed,a negative and low-level relationship (r = .301) was identified between the dimension of school as an entity to be longed for and rebellion. However, when the other variable was controlled for, the relationship between the two variables was determined to be r = -.236. Additionally, there is a positive and low-level relationship between school as an entity to be longed for dimension and the authentic engagement level (r = .267). However, when the other variable is controlled for, then the relationship between the two variables was determined to be r = -.165. There is a negative and low-level relationship

Table 5: Predicting school as a supportive of personal development dimension based on classroom participation levels

Predictors	*B*	*Standard error B*	*â*	*T*	*p*	*Bilateral r*	*Partial r*
Authentic engagement	.470	.071	.372	6.62	.000	.473	.330
Rebellion	-.204	.053	-.218	-3.87	.000	-.390	-.193
Fixed	18.798	3.163		5.953	.000		

R=.511 R^2=0.261$F_{(1;298)}$=52.497 p=.000

Table 6: Predicting school as an entity to be longed for dimension based on classroom participation levels

Predictors	*B*	*Standard error B*	*â*	*T*	*p*	*Bilateral r*	*Partial r*
Rebellion	-.145	.035	.308	-4.18	.000	-.301	-.236
Authentic engagement	.113	.039	.178	2.88	.004	.267	.165
Ritual engagement	.085	.042	.142	2.02	.044	-.117	.117
Fixed	8.515	1.805		4.71	.000		

R = .351 R^2= 0.123$F_{(1;298)}$= 13.889 p=.000

between school as an entity to be longed for dimension and the symbolic engagement level (r = -.117). However, when the other variable is controlled for, then the relationship between the two variables was determined to be r = -.117.

According to the standardized regression coefficients (β), the relative importance of predicting variables for the school as an entity to be longed fordimension indicated rebellion, authentic engagement, and ritual engagement. When t-test results regarding the significance of regression coefficients were examined, these variables were recognized as significant predictors of the school as an entity to be longed for dimension.

DISCUSSION

The purpose of this research investigation was to identify the relationship between high school students' classroom engagement level and their attitude toward school. To begin, a "Student Classroom Engagement Scale" was developed by the researcher. This scale included three dimensions: rebellion, authentic engagement, and ritual engagement. Furthermore, the scale contained a total of 28 items. Analysis of the scale's EFA yielded that the lowest factor loading value was .372 and it explained 44.82 percent of the total variances. Examination of the remaining 28 items of the scale's item-total correlations showed that the lowest value was .299. As a result, it can be stated that the distinctiveness of each item was high. Finally, it can also be confirmed that the scale has appropriate construct validity.

In order to verify the scale's factor structures CFA was performed. The results of the CFA identified that fit indices were at the desired level. Also, Cronbach's alpha coefficient was calculated for the scale's reliability. The scale was considered reliable because the calculated coefficiency was larger than .70 and was considered at an acceptable level (Buyukozturk 2005: 171).

When the students' level of classroom engagement was examined, it was recognized that students showed moderate agreement on items relating to the dimension of rebellion level, while they showed little agreement on items related to the authentic engagement dimension. It was also determined that students will do whatever is required of them during their classes. However, their effort and energy was often spent on maintaining the status quo in order to receive some reward. They were often bored in their classes and experienced difficulties transferring their knowledge into a new learning experience. In this case, it can be stated that external factors are important for students. As Lazaros and Davidson explained (2013; cited by Senior et al. 2014), student engagement plays an important rolein improving student motivation. Research also proved that students with levels of ritual engagement, retreatism and/or passive compliance were motivated via external factors (Saeed and Zyngier 2012),while the students exhibiting authentic engagement behavior had intrinsic motivation (Ryan and Deci 2009; Schlechty 2002).

When analysis was conducted on students based on their mother's level of education, there was no significant difference recognized between students' opinions. However, in the related research literature, it is argued that families place more importance on school achievement when their family education increases (Englund et al. 2004; Zellman 1998). This finding may result from a decrease in parents' impact on children based on an increase in the children's academic success. When students reach adolescence, they seek more independence and wish to have control of their lives (Aydin 2010: 187). This phenomenon reduces the families' control and impact they may have on their children.

When students' opinions were analyzed based on gender, it was determined that male students demonstrated more rebellion and ritual level of engagement than female students. Analysis according to the variable of school type yielded that students in high schools of science and vocational high schools demonstrated more symbolic engagement then students in Anatolian high schools. Based on engagement levels, Schlechty (2002) divided classrooms into three categories: engaged classes, compliance classes, and task-off classes. According to this classification, students in engaged classrooms exhibited authentic engagement. In compliance classrooms with traditional teaching, students exhibited ritual engagement and passive compliance. In task-off classes, students exhibited retreatism and the rebellion level of engagement behavior. This situation may be related to how students perceive their classroom environment.

In a democratic classroom environment, students are more likely to be willing participants in classroom activities. However, related research has illustrated that according to students, teach-

ers do not behave democratically (Kiroglu 2013) and they sometimes discriminate among students (Tomul et al. 2012; Karaman-Kepenekci and Nayir 2014). Because of this perception, students may attend their courses at the level of rebellion. In other words, it can be postulated that high schools of science and vocational high schools follow a more traditional approach to curriculum and instruction. As a result, these classrooms tend to lack a democratic environment. As Hammar-Chiriac (2014) and Senior and Howard (2014) explained, this situation may be related to being a part of a class that considers student engagement important.When students' opinions were analyzed based on the family income variable, it was recognized that students with high levels of income often participated at the level of rebellion.

When the relationship between classroom engagement level and attitude toward school was investigated, it was identified that rebellion and authentic engagement dimensions were significant predictors of all the dimensions of attitude toward school. On the other hand, ritual engagement was only a significant predictor for the dimension of school as an entity to be longed for. In other words, students' opinions of school as an entity to be longed for and as a supportive of personal development were associated with their level of engagement. Students' attitude toward school changed in a positive manner when they exhibited authentic engagement and ritual engagement. In other words, it can be said thatthere is a relationship between student engagement and student attitudes toward school. This finding is similar to several studies (Madrid 2014; Forehand 2014).

CONCLUSION

It was indicated that the "Student Classroom Engagement Scale", consisting of three dimensions and 28 items, was viewed as a reliable and valid scale for determining high school students' classroom engagement level. According to findings, female students' engagement occurs less at the rebellion level, while male students' attendance is at both rebellion and ritual engagement level. In addition, it was determined that there is a relationship between students' classroom engagement level and their attitudes toward school. As a result, it can be stated that students exhibiting authentic and ritual engagement have positive attitudes toward school, while students exhibiting attendance at a rebellion level have negative attitudes toward school. In addition, levels of students' engagement can be regarded as a significant predictor of their attitudes toward school.

RECOMMENDATIONS

In this research it is found that students whose engagement is at the authentic and ritual levels have positive attitudes toward school. On the other hand, students whose engagement is at rebellion level exhibit negative attitudes. For this reason, classroom activities should be arranged according to students' interest and needs. By so doing, students will be internally motivated and ultimately exhibit authentic attendance. Moreover students' engagement levels may vary with the type of courses. For further research, it is suggested that students' behavior of attendance should be examined at different levels, because this behavior can be affected by variables, such as family, economic conditions, psychological problems, etc. Additionally, students' behavior of attendance may be correlated with different variables such as the role of the teacher or grade of the students.

NOTE

[1] The summary of this study was presented at the 1st Eurasian Educational Research Congress Congress, held in Istanbul, Turkey, between 24-26 April, 2014.

REFERENCES

Alici D 2013. Okula yoneliktutumolcegi' ningelistirilmesi: Guvenirlik ve gecerlik calismasi [Development of an attitude scale towards school: A study on reliability and validity], *Education and Science*, 38: 318-331.

Aydin B 2010. *Cocukveergenpsikolojisi [Child and Adolesence Psychology]*. Ankara: Nobel Yayincilik.

Balci A 2005. *Egitim terimleri sozlugu [Education Terminology Dictionary]*. Ankara: Tek Agac Yayincilik.

Bomia L, Beluzo L, Demeester D, Elander K, Johnson M, Sheldon, B 1997. *The Impact of Teaching Strategies on Intrinsic Motivation*. Champaign, IL: ERIC *Clearinghouse on Elementary and Early Childhood Education*. (ED 418 925)

Brown TA 2006. *Confirmatory Factor Analysis for Applied Research*. New York: Guilford Press.

Buyukozturk S 2005. *Sosyal Bilimler Icin Veri Analizi [Data Analysis for Social Science]*. Ankara: Pegem A Yayincilik.

Chapman E 2003. Alternative Approaches to Assessing Student Engagement Rates. Practical Assessment,

Research and Evaluation, 8(13). From <http://PAREonline.net/getvn.asp?v=8andn=13> (Retrieved on 7 February 2012).

Deakin Crick R 2014. Learning to learn: A complex system perspective. In: R Deakin, Crick C Stringher, K Ren (Eds.): *Learning to Learn: International Perspectives from Theory and Practice*. New York: Routledge, pp. 66 – 86.

Englund MM, Luckner AE, Whaley GJL, Egeland B 2004. Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology*, 96: 723-730.

Fredricks JA, Blumenfeld PC, Paris AH 2004. School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74: 59-109.

Forehand MJ 2014. *Working on the Work Framework for Engagement: Impacting Students' Perceived Learning, Attitudes Toward School, and Achievement.* PhD Thesis, Unpublished. Lynchburg: Liberty University

Green SB, Salkind NJ 2008. *Using SPSS for Windows and Macintosh: Analyzing and Understanding Data.* 6th Edition. Upper Saddle River, NJ: Pearson/Prentice Hall.

Hammar-Chiriac E 2014.Group Work as an Incentive for Learning–Students' Experiences of Group Work. Front. Psychol. 5:558. From <http://www.ncbi. nlm. nih.gov/pubmed/24926282> (Retrieved on 05 April 2015).

Harboura KE, Lauren LE, Chris AS, Lindsay EH 2015. A brief review of effective teaching practices that maximize student engagement, *Preventing School Failure: Alternative Education for Children and Youth*, 59(1): 5-13.

Jablon JR, Wilkinson M 2006. Using engagement strategies to facilitate children's learning and success. *Young Children*, 61(2): 1-5.

Karaman-Kepenekci Y, Nayir F 2014. Okul iklimini insan haklarina duyarlilik boyutundasorgulama: liseleruzerinebirarastirma [Querying of school climate in terms of sensitivity to human rights: A research on high schools]. *Trakya University Journal of Education*, 4: 1-16.

Kiroglu K 2013. Is my social studies teacher democratic? *Egitim Arastirmalari – Eurasian Journal of Educational Research*, 50: 127-142.

Kuh GD 2009.The National Survey of Student Engagement: Conceptual and Empirical Foundations. New Directions for Institutional Research, 141: 5-12. From <http://dx.doi.org/10.1002/ir.283> (Retrieved on 9 May 2014).

Lazaros EJ, Davidson CJ 2013. Improving student engagement. *Contin J Arts Human*, 5: 55–59.

Madrid A 2014. Student Engagement, Student Attitudes, and School Preparedness: A Study of Adolescents in Grade Nine, California State University, Long Beach, Dissertation Abstracts, From <http://pqdtopen. proquest. com/results.html?keywords= Student%20 engagement> (Retrieved on 1 April 2015).

Marks HM 2000 . Student engagement in instructional activity: Patterns in the elementary, middle and high school years, *American Educational Research Journal*, 37: 153-184.

Newmann FM 1996. *Authentic Achievement: Restructuring Schools for Intellectual Quality.* 1st Edition. San Francisco: Jossey-Bass Publishers.

Nystrand M, Gamoran A 1992. Instructional discourse and student engagement. In: Dale H Schunk, Judith L Meece (Eds.): *Student Perceptions in the Classroom.* Hillsdale, NJ: Lawrence Erlbaum, pp. 149-179.

Ozdamar K 2004. *Paket Programlar Ile Istatiksel Veri Analizi [Statistical Data Analysis With Pocket Programs]*. Eskisehir: Kaan Kitabevi.

Reeve J, Jang H, Carrell D, Jeon S, Barch J 2004. Enhancing students' engagement by increasing teachers' autonomy support, *Motivation and Emotion*, 28(2): 147 - 169

Ryan RM, Deci EL 2009. Prooting self-determined school engagement: Motivation, learning and well-being. In: Kathryn R Wentzel, Allan Wigfield (Eds.): *Handbook on Motivation at School*. New York: Routlage, pp.171-196.

Saeed S, Zyngier D 2012. How motivation influences student engagement: A qualitative case study. *Journal of Education and Learning*, 1: 252-267.

Schlechty PC 2001.*Okulu Yeniden Kurmak [Shaking Up The Schools]* (Trans. Ozden Y 2012). Ankara: Nobel Yayincilik.

Schlechty PC 2002. *Working on the Work.* San Francisco, CA: Jossey-Bass.

Secer I 2013. *SPSS ve LISREL Ile Pratik VeriAnalizi, [Practical Data Analysis with SPSS and LISREL]*, Ankara: AniYayincilik.

Senior C, Howard C 2014. Learning in Friendship Groups: Developing Students' Conceptual Understanding through Social Interaction. Front Psychol, 5:1031. From <http://journal.frontiersin.org/article/10.3389/fpsyg. 2014.01031/full> (Retrieved on 5 April 2015).

Senior C, Howard C, Senior R 2014. The Future and the Female Academic Leader: Advancing Student Engagement. Front Psychol, 5:377. From <http://www.ncbi. nlm.nih.gov/pmc/articles/PMC4010763/> (Retrieved on 5 April 2015).

Sinclair MF, Christenson SL, Lehr CA, Anderson AR 2003. Facilitating student engagement: Lessons learned from check and connect longitudinal studies. *The California School Psychologist*, 8: 29-41.

Tatar M 2006. Okulveogretmeninogrencibasarisiuzerindeki etkisi [The effects of school and teachers on student achievement]. *Milli Egitim*, 171: 156-166.

Tomul E, Celik K, Tas A 2012. Siniftaadalet, ogrencialgiilariina gore ogretmendavranislarinindegerlendirilmesi [Justice in class, assesment of teacher behaviour according to student perceptions]. *Eurasian Journal of Educational Research*, 48: 59 – 72.

Turner JC, Patrick H 2004. Motivational influences on student participation in classroom learning activities. *Teachers College Record*, 106: 1759-1795.

Valiente C, Lemery-Chalfant K , Swanson J , Reiser M 2008. Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology*, 100: 67-77.

Willms JD 2003. *Student Engagement at School: A Sense of Belonging and Participation*. Paris: Organisation for Economic Co-operation and Development.

Zellman GL 1998. Understanding the impact of parental school involvement on children's educational outcomes. *Journal of Eduational Research*, 91: 370-381.