

# The Effect of School Culture on School Engagement: The Mediating Role of Social and Emotional Learning

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## ABSTRACT

This study investigated how social and emotional learning mediates the relationship between adolescents' perceptions of school culture and their levels of school engagement. A total of 365 high school adolescents (52.9% female, 47.1% male) participated, with data collected using the School Engagement Scale, School Culture Scale, Adolescents' Social and Emotional Learning Scale, and a Demographic Information Form. The Pearson product-moment correlation analysis results show that there are statistically significant positive relationships between school culture, school commitment, and social and emotional learning variables. It was discovered that the school culture significantly predicted school engagement in adolescents. Findings indicated a significant effect of school culture on social and emotional learning, and this, in turn, significantly affected students' engagement with school. The study concluded that the relationship between school culture and school engagement in adolescents was partially mediated by social and emotional learning, with its indirect impact proving significant.

**Keywords:** School culture, school engagement, social and emotional learning, mediation

## Introduction

The substantial time children and adolescents spend at school underscores the critical role schools play in shaping their lives. Establishing environments where students feel peaceful, happy, and safe is a crucial factor in enhancing their attachment to school (Sarı, 2013). School environments where students do not feel a sense of belonging, where they perceive the knowledge taught as meaningless, and where they cannot form an emotional connection with the school or its staff negatively impact their educational activities (Kılıç, 2022). Thus, students may disengage from their educational experiences. Therefore, it is essential for students to develop attachment to schools, given the significant role schools play in their lives during childhood and adolescence.

Engagement consists of various interactions that are active, goal-oriented, flexible, constructive, consistent, and focused between individuals and their social and physical environments (Furrer & Skinner, 2003). Active involvement in school activities, a strong sense of belonging, and appreciation for the school's goals are central to the

concept of school engagement (Finn, 1989). Mosher and McGowan (1985) define the school engagement as the attitudes and behaviors that lead to students' involvement in school programs. Connell and Wellborn (1991) emphasize that school engagement develops when the group environment satisfies students' three essential psychological needs: autonomy, competence, and relatedness. Newmann et al. (1992) also describe the school engagement as the psychological investment and effort students make to learn, understand, or master the knowledge, skills, and crafts encouraged by academic activities. Osterman (2000) views the school engagement as a sense of belonging to a group, while Maddox and Prinz (2003) define it as the relationships students establish with their schools and various aspects of their academic lives. Accordingly, the school engagement can be described as the quality of students' relationships with their schooling efforts, other individuals, school activities, goals, values, and the school environment itself (Skinner et al., 2009). These definitions indicate that school engagement is a vital component influencing students' academic, social, and emotional growth.

Low levels of school engagement during adolescence represent a significant issue, as they are associated with problematic behaviors such as increased school dropout rates, substance use, early pregnancy, and criminal activity (Caraway et al., 2003). Empirical studies show that the school engagement is negatively correlated with health-risk behaviors (Dolzan et al., 2015; Şimşek & Çöplü, 2018), tendencies towards violence (İkiz & Sağlam, 2017), school dropout (Archambault et al., 2009; Arslan, 2021), the risk of substance abuse and involvement in crime (Li et al., 2011; Wang & Fredricks, 2014), school burnout (Özdemir, 2015), and internet addiction (Taş, 2017). The study highlights that school engagement functions as a key factor in preventing and mitigating adolescents' inclination toward negative behaviors.

Strengthening school engagement is seen as a key approach to resolving issues related to low academic success and school attrition (Finn, 1993; Fredricks et al., 2004). Students who attend school regularly, maintain learning consistency, build positive relationships with those around them, actively participate in school activities, and possess a positive sense of belonging demonstrate a high level of school engagement (Christenson et al., 2001). Students with high levels of school engagement continuously engage in learning activities with positive emotions, choose tasks that match their competency levels, exert significant effort and attention in learning activities, and exhibit excitement, optimism, curiosity, and interest in various activities (Skinner & Belmont, 1993). School engagement is an important prerequisite for students' learning processes and overall school experiences.

School culture is a significant factor that can impact students' levels of school engagement. Schools are organizations that produce values, operate based on those values, and strive to realize significant values. Like other organizations, each school has a unique culture. The school culture significantly influences schools' growth, their ability to adapt to changes, and their long-term sustainability (Recepoglu, 2014; Şişman, 2004). It is defined in different ways in the literature. School culture is defined as the values, belief systems, and traditions that emerge over time within the historical process of schools (Deal & Peterson, 1990). Stolp and Smith (1995) describe the school culture as a set of historical patterns of meaning, including norms, values, belief systems, traditions, and myths shared by school administrators, teachers, students, and other staff members. When the definitions are examined, it is seen that school culture contains many elements. These elements are represented by a common sense of purpose, vision, shared norms, values, beliefs, assumptions, and

practices such as rituals, traditions, ceremonies, as well as historical accounts, stories, architecture, artifacts, and symbols (Peterson & Deal, 2002). The culture of a school impacts all of its processes and practices, and school-related issues are not independent of the school's culture (Şişman, 2020). School culture is associated with positive outcomes. A positive school culture is defined by motivated students, strong academic achievement, a collaborative teaching environment, and teachers' positive feelings about their professional contributions (Stolp & Smith, 1995). Furthermore, positive cultures have various functions such as guiding the behavior of those involved with the school, fostering commitment to the school's values, enhancing the motivation of students and teachers, and contributing to the school's effectiveness and creativity (Peterson & Deal, 2002). Given the effects of school culture, it can be concluded that the characteristics of a school's culture will influence students' development of attachment to their schools.

A key variable associated with school engagement is social and emotional learning, which involves developing the skills, attitudes, and values needed for achieving social and emotional competence (CASEL, 2003; Elias et al., 1997). Social and emotional learning, as defined by CASEL (2020), is a vital part of education and human development, involving the acquisition and application of knowledge, skills, and attitudes to develop healthy identities, manage emotions, achieve goals, demonstrate empathy, build relationships, and make responsible decisions. Schools play a crucial part in nurturing students' social and emotional skills, contributing to their overall healthy development (Durlak et al., 2011). Through social and emotional education, the goal is for students to become citizens with positive values, establish effective relationships with others, and learn constructive behaviors (Elias et al., 1997). Supporting social and emotional learning in schools is evidently important for students to gain diverse competencies necessary for their growth.

Social and emotional learning practices create opportunities for students to develop critical life skills necessary for their growth (Greenberg et al., 2017). These programs help students develop their skills and cognition to successfully navigate the challenges they face in life. Additionally, they help transform and improve school climate by creating environments where students will want to belong (Yeager, 2017). Efforts to support students' social and emotional learning can foster their attachment to their schools.

In research conducted in Turkey, social and emotional learning has been examined in relation to variables such as self-esteem (Merter, 2013), life satisfaction, hope (Kabakçı & Totan, 2013), emotional intelligence (İşeri, 2016), family and peer support, hope levels (Candan & Yalçın, 2018), as well as life satisfaction and psychological resilience (Yıldız & Kahraman, 2021).

Social and emotional learning programs create safe, caring, and well-managed learning environments that enhance students' school engagement. This is associated with fewer risk behaviors and higher academic performance (CASEL, 2003). Social and emotional learning plays a crucial role in enhancing students' engagement within the school environment. Research in the literature also shows that social and emotional learning competencies significantly predict school engagement. One study found that students' self-esteem positively predicted school engagement over time (Karababa, 2020). Another study found that self-efficacy scores significantly predicted school engagement (Caraway et al., 2003). A study on social competence found that social competence assessed at Time 1 significantly predicted students' school engagement assessed at Times 1 and 2 (Simons-Morton & Crump, 2003). These results underscore the significance of social and emotional learning as a key factor in boosting school engagement.

The absence of research involving these three variables suggests that this study will provide valuable insights to the related body of knowledge. Based on these reasons, the aim of the current research is to investigate the effect of school culture on the level of school attachment in adolescents and the mediating role of social and emotional learning in this relationship.

## Methods

### Research model

This study employed a correlational survey model. Correlational survey models aim to identify the relationships between multiple variables and determine the degree of change (Karasar, 2012). In the research model of the current study, school culture is the independent variable (X), school engagement is the dependent variable (Y), and social and emotional learning (M) is the mediating variable.

### Participants

The study's participants consisted of 365 individuals, 193 (52.90%) of whom were female and 172 (47.10%) male. The students' ages ranged from 14 to 18, with an average age of 16.11. Specifically, 48 participants (13.20%) were 14

years old, 72 (19.70%) were 15 years old, 90 (24.70%) were 16 years old, 102 (27.90%) were 17 years old, and 53 (14.50%) were 18 years old. 88 students (24.10%) were in 9th grade, 96 (26.30%) in 10th grade, 82 (22.50%) in 11th grade, and 99 (27.10%) in 12th grade.

## Data Collection Tool

### School Engagement Scale (SES)

Fredricks et al. (2005) created the SES to evaluate the extent of children's engagement within the school environment. The scale consists of three dimensions: behavioral, emotional, and cognitive, with 19 items in total. It is designed in a 5-point likert type and contains 3 reverse-coded items. High scores on the scale indicate high levels of school engagement, while low scores suggest low engagement. The researchers reported Cronbach's Alpha coefficients of .72 for the behavioral dimension, .83 for the emotional dimension, and .77 and .86, respectively, in a subsequent study, with .82 for the cognitive dimension. The scale was adapted into Turkish culture by Çengel et al. (2017), with data collected from 515 middle school students for validity and reliability analyses. Exploratory factor analysis revealed a three-factor structure, supported by sufficient sampling adequacy and significant statistical outcomes, indicating the model's suitability. This structure was further validated through confirmatory factor analysis, which demonstrated a strong alignment between the proposed framework and the data. Cronbach's Alpha reliability coefficients were calculated as .68 for the behavioral dimension, .80 for the emotional dimension, .80 for the cognitive dimension, and .89 for the entire scale. McDonald's Omega reliability coefficients ranged from .74 to .85. Test-retest reliability ranged from .70 to .79. The Cronbach's Alpha for the total SES score was calculated as .83 in this study, indicating high reliability. A Cronbach's Alpha value of .83 was calculated for the total SES score, reflecting its reliability in this study.

### School Culture Scale (SCS)

The SCS was developed by Higgins-D'Alessandro and Sadh (1998). The scale comprises 25 items rated on a 5-point Likert scale and is divided into four subdimensions: normative expectations, student-teacher/school relationships, student relationships, and educational opportunities. A principal component factor analysis with orthogonal rotation revealed that the scale has four factors, explaining 51.50% of the variance. The internal consistency analysis for the overall scale yielded a reliability coefficient of .85, with subscale reliability coefficients of .80 for normative expectations, .82 for student-teacher/school relationships, .77 for student relationships, and .78 for

educational opportunities. The scale was adapted into Turkish by Yılmaz (2019), reporting a KMO sampling adequacy of .89 and Bartlett's test result of  $\chi^2 = 3078.20$ . Confirmatory factor analysis indicated acceptable model fit. Cronbach's Alpha coefficients were .89 for the overall scale, .69 for student relationships, .77 for student-teacher/school relationships, .85 for educational opportunities, and .83 for behavioral expectations. Item-test correlations ranged from .37 to .59. The reliability of the total SCS score in this research was reflected by a Cronbach's Alpha coefficient of .91.

### Social and Emotional Learning Scale for Adolescents (SELS-A)

The SELS-A was developed by Totan (2018) for adolescents. The scale focuses on five key areas: self-awareness, social awareness, self-management, responsible decision-making, and relationship skills. The long form of the scale was used in this research. All items are positively phrased, and no reverse-coded items are present. Exploratory factor analysis indicated that the five factors had eigenvalues ranging from 1.25 to 4.79, explaining 48% of the total variance. The KMO sampling adequacy was .773, and Bartlett's test yielded a chi-square result of 1814.18 ( $df = 253, p = .000$ ). Confirmatory factor analysis showed that all items loaded significantly on their respective factors and that the model fit was adequate. Cronbach's Alpha values were .92 for the entire scale and .70–.83 for the subdimensions, indicating good reliability. The McDonald Omega coefficient was .94 for the total scale. Test-retest reliability was found to be .82, indicating statistically significant results. In this study, the Cronbach's Alpha reliability coefficient for the total SELS-A score was .86.

### The Personal Information Form

This study utilized the researcher-designed Personal Information Form to gather participant demographic data, including their gender, age, school grade, type of school, location of residence, family income, and parents' education levels.

The ethical process in the study was as follows:

- Ethical approval for the study was granted by the Aydın Adnan Menderes University Educational Research Ethics Committee (Date: 27.10.2021, Number: 2018-24).
- Informed consent has been obtained from the participants.

### Data Analysis

The statistical analysis for the study was conducted through the SPSS 22.0 software. The assessment of normality for the variables was conducted by analyzing their skewness and kurtosis coefficients. The values of skewness and kurtosis were found to be within the acceptable range of  $\pm 1.5$ . The relationships between variables were examined using Pearson's product-moment correlation, resulting in the identification of significant positive correlations. Following the correlation analyses, Hayes' (2022) PROCESS procedure was used to test the mediation effects.

### Results

This study initially explored the relationships between school culture, school engagement, and social and emotional learning among adolescents using Pearson product-moment correlation coefficients. For multivariate statistics to be applied, the assumption of normality must be met. The skewness and kurtosis values calculated for school engagement and its subdimensions were found to range from -.441 to 1.091 for skewness and from -.444 to 1.883 for kurtosis. The skewness values for school culture subdimensions varied from -.526 to .380, with kurtosis values spanning -.444 to 1.883. In contrast, social and emotional learning and its subdimensions reported skewness between -.950 and -.542, and kurtosis values between -2.86 and .837. As a result, it was concluded that the research variables followed a normal distribution. Subsequently, bivariate relationships between the research variables were investigated using Pearson product-moment correlation analysis. The results obtained are presented in Table 1.

The Pearson product-moment correlation analysis revealed statistically significant relationships between school engagement and its subdimensions, ranging from .74 to .83 ( $p \leq .001$ ); between school culture and its subdimensions, ranging from .69 to .85 ( $p \leq .001$ ); and between social and emotional learning and its subdimensions, ranging from .74 to .87 ( $p \leq .001$ ). When examining the relationships between the independent, mediator, and dependent variables, significant positive correlations were found between school engagement and school culture (.48,  $p \leq .001$ ), school engagement and social and emotional learning (.57,  $p \leq .001$ ), and school culture and social and emotional learning (.30,  $p \leq .001$ ). Furthermore, the absence of bivariate correlations exceeding .90 indicated that there was no multicollinearity in the research data. The analysis then proceeded to examine the mediation effect.

**Table 1.**  
*Bivariate Relationships Between School Culture, School Engagement, and Social and Emotional Learning*

|  | [1]   | [2]   | [3]   | [4]   | [5]   | [6]   | [7]   | [8]   | [9]   | [10]  | [11]  | [12]  | [13]  | [14]  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Behavioral engagement [1]                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Emotional engagement [2]                 | .40** |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cognitive engagement [3]                 | .59** | .31** |       |       |       |       |       |       |       |       |       |       |       |       |
| School engagement [4]                    | .79** | .74** | .83** |       |       |       |       |       |       |       |       |       |       |       |
| Student relationships [5]                | .31** | .38** | .24** | .39** |       |       |       |       |       |       |       |       |       |       |
| Student-teacher/school relationships [6] | .33** | .35** | .38** | .45** | .44** |       |       |       |       |       |       |       |       |       |
| Normative expectations [7]               | .17** | .18** | .12** | .19** | .45** | .35** |       |       |       |       |       |       |       |       |
| Educational opportunities [8]            | .33** | .37** | .35** | .44** | .47** | .61** | .39** |       |       |       |       |       |       |       |
| School culture [9]                       | .36** | .40** | .36** | .48** | .69** | .79** | .72** | .85** |       |       |       |       |       |       |
| Self-awareness [10]                      | .35** | .24** | .39** | .43** | .13*  | .22** | .05   | .21** | .20** |       |       |       |       |       |
| Social awareness [11]                    | .39** | .29** | .47** | .49** | .21** | .24** | .07   | .25** | .25** | .65** |       |       |       |       |
| Self-management [12]                     | .44** | .29** | .49** | .52** | .19** | .27** | .15** | .23** | .27** | .52** | .44** |       |       |       |
| Relationship skills [13]                 | .31** | .28** | .35** | .40** | .27** | .28** | .15** | .22** | .28** | .48** | .49** | .45** |       |       |
| Responsible decision-making [14]         | .40** | .30** | .51** | .52** | .16** | .24** | .06   | .22** | .22** | .70** | .66** | .61** | .58** |       |
| Social and emotional learning [15]       | .46** | .34** | .54** | .57** | .23** | .31** | .12*  | .28** | .30** | .85** | .80** | .74** | .76** | .87** |

\*  $p \leq .05$ , \*\*  $p \leq .001$

**Table 2.**  
*The Model on the Effect of School Culture on School Engagement*

| Variable       | b     | s.e. | t     | p      | LLCI  | ULCI  |
|----------------|-------|------|-------|--------|-------|-------|
| constant       | 40.78 | .10  | 19.45 | .000** | 36.63 | 44.87 |
| School culture | .31   | .03  | 10.34 | .000** | .25   | .38   |

\*  $p \leq .05$ , \*\*  $p \leq .001$

As shown in Table 2, the effect of school culture on school engagement is statistically significant ( $c = .48$ , 95% CI [36.63-44.87],  $t = 19.45$ ,  $p \leq .001$ ). The increase in school culture explains a 23% increase in school engagement ( $R^2 = .23$ ). According to the obtained results, the direct effect of school culture on school engagement is statistically significant. Following the fulfillment of the initial mediation test condition, the analysis focused on the role of social and emotional learning as a mediator in the relationship between school culture and school engagement. The results are detailed in the table below.

Table 3 shows that, based on the analysis, school culture is a statistically significant predictor of school engagement among adolescents, alongside social and emotional learning ( $c' = .33$ , 95% CI [2.82-15.89],  $t = 8.07$ ,  $p \leq .001$ ). Additionally, the effect of social and emotional learning on school engagement is also statistically significant ( $b = .47$ , 95% CI [.36-.51],  $t = 11.25$ ,  $p \leq .001$ ). However, school culture and social and emotional learning explain a 43% increase in school engagement ( $R^2 = .43$ ). It was also found that the effect of school culture on social and emotional

learning is statistically significant ( $a = .30$ , 95% CI [67.05-76.65],  $t = 29.44$ ,  $p \leq .001$ ), with school culture explaining 9% of the variance in social and emotional learning ( $R^2 = .09$ ). The research model indicates that all paths are statistically significant. Therefore, the examination of indirect effects was conducted to determine the presence of a mediation effect.

**Table 3.**  
*Model on the Effect of Social and Emotional Learning and School Culture on School Engagement*

| Variable                      | b    | s.e. | t     | p      | LLCI | ULCI  |
|-------------------------------|------|------|-------|--------|------|-------|
| constant                      | 9.36 | .32  | 2.82  | .005*  | 2.82 | 15.89 |
| School culture                | .22  | .03  | 8.01  | .000** | .16  | .27   |
| Social and emotional learning | .44  | .04  | 11.25 | .000** | .36  | .51   |

\*  $p \leq .05$ , \*\*  $p \leq .001$ , b= standardized beta coefficient, s.e.= standard error, LLCI=Lower Limit Confidence Interval, ULCI= Upper Limit Confidence Interval

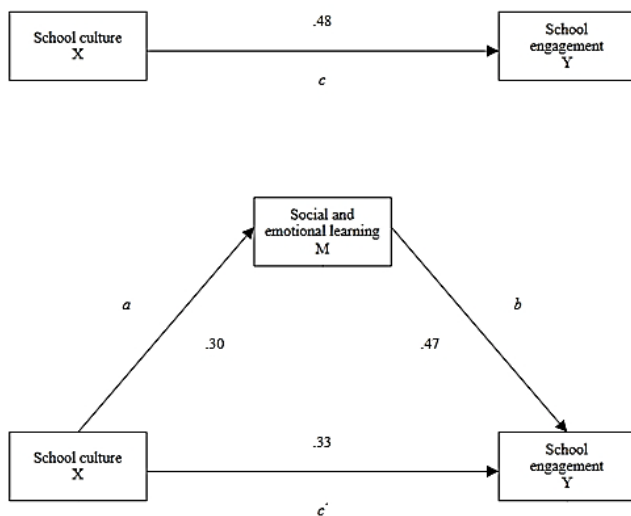
**Table 4.**

*Direct and Indirect Effects of Social and Emotional Learning on the Relationship Between School Culture and School Engagement in Adolescents*

| Effect             | Bootsrap<br>s.e. | %95 Confidence<br>interval |                |
|--------------------|------------------|----------------------------|----------------|
|                    |                  | Lower<br>bound             | Upper<br>bound |
| Direct<br>effect   | .22              | .17                        | .27            |
| Indirect<br>effect | .09              | .06                        | .13            |

\*  $p \leq .05$ , \*\*  $p \leq .001$ ,  $b$  = standardized beta coefficient,  $s.e.$  = standard error,  $LLCI$  = Lower Limit Confidence Interval,  $ULCI$  = Upper Limit Confidence Interval

The analysis, conducted with the Bootstrap method using 5,000 samples, revealed that the 95% confidence interval for the indirect effect of social and emotional learning on the relationship between school culture and school engagement excludes 0, as shown in Table 4, confirming its significance.

**Figure 1.**

*Social and emotional learning mediates the relationship between school culture and school engagement in the conceptual model*

Figure 1 presents the model of the mediation effect. According to the analysis results, the coefficient between school culture and school engagement was determined to be .48. When the social and emotional learning variable was added as a mediator to the model, the coefficient decreased to .33.

Although the coefficient between school culture and school engagement decreased with the inclusion of social and

emotional learning in the model, its statistical significance was maintained. However, considering the adequacy of the indirect effect analysis, it was determined that social and emotional learning exhibits a partial mediating effect on the relationship between school culture and school engagement.

## Discussion

The study identified a moderate, positive, and significant relationship between school culture and school engagement, emphasizing the role of school culture in shaping students' thoughts and behaviors. The role of school culture is critical in shaping students' thoughts and behaviors within their educational setting (Barth, 2002). Considering the behavioral and cognitive effects of school culture on students, it can be concluded that this variable is related to school engagement. Ceylan and Özgenel (2022) found a moderate positive significant relationship between school culture and students' perceived overall school engagement and its three dimensions, with middle school students. A negative, low-level significant relationship was observed between students following strict rules and their overall school engagement and its subdimensions. Research by Koçak and Ay (2020) revealed a moderately positive significant association between democratic school culture perceptions and school engagement among high school students, echoed by Lagrimas and Buenaventura (2023) who reported a positive significant relationship between school culture perceptions and engagement. Research also shows positive relationships between variables similar to school culture and school engagement. Positive significant relationships have been found between school life quality (Kalaycı & Özdemir, 2013; Dönmez, 2018), school effectiveness (Ergüç-Şahan & Özgenel, 2021), school climate (Fullarton, 2002; Yavrutürk et al., 2020), and school engagement. The findings of the current research, along with similar studies, demonstrate a positive relationship between school culture and school engagement.

The study's analysis demonstrated a moderate positive and significant relationship between school engagement and social and emotional learning variables. This finding is consistent with similar research in the literature. A study by Ross and Tolan (2018) revealed a significant positive connection between social and emotional learning and school engagement. Another study found moderate statistically significant relationships between high school students' levels of social and emotional learning and their engagement (Okur et al., 2022). The findings of Mantz et al. (2018) revealed strong positive relationships between social-emotional competencies and all aspects of school

engagement, including cognitive, behavioral, and emotional. Yang et al. (2018) also confirmed significant positive relationships between social and emotional learning dimensions and school engagement in students from various educational backgrounds. These results support the findings of the current research, which shows a positive relationship between students' social and emotional learning levels and school engagement.

Social and emotional learning programs aim to teach students specific skills and create a classroom and school culture that fosters their development (Greenberg et al., 2017). Moreover, a positive school culture are fundamental components of high-quality social and emotional learning programs (Weissberg et al., 2015). It seems that school culture and social emotional learning programs are related. The analysis found out a positive moderate significant relationship between school culture and social and emotional learning variables. No research has been found in the literature that addresses two variables. Findings from Yang et al. (2020) and Tüten (2023) show that school climate is positively linked to social and emotional learning competencies, with the latter study reporting a moderate positive relationship. Adding to the existing literature, the current research indicates that perceptions of school culture are closely linked to social and emotional learning.

The significant predictive role of school culture on school engagement found in this study is supported by existing research. Peterson and Deal (2002) note that school culture permeates the entire school environment, shaping students' thinking, feelings, and actions. Brady (2005) found that school culture has a significant impact on students' perceptions of school engagement. In a study examining various dimensions of school culture, Ceylan and Özgenel (2022) found that sub-dimensions of school culture significantly predicted students' overall school engagement. According to Koçak and Ay (2020), high school students' perceptions of democratic school culture significantly and positively predict school engagement. Gauley (2017) found that students' perceptions of school climate predict school engagement. Other studies have also shown that a safe, supportive, and success-oriented school climate significantly predicts high school students' school engagement (Bilgin & Taş, 2018; İhtiyaroğlu, 2014). Ergüç-Şahan and Özgenel (2021) found that the dimensions of students' perceptions of school effectiveness significantly predict their school engagement, noting that higher levels of school effectiveness lead to higher levels of student engagement. To summarize, students who perceive their schools as supportive, safe, and effective have higher levels of engagement. The findings from this research, along with

similar studies, suggest that as students hold more positive perceptions of school culture, their level of school engagement also increases.

This research identified a significant relationship between social and emotional learning and school engagement. Consistent with this, Yang (2015) defined social and emotional learning as comprising teacher-student relationships, peer interactions, and teachers' application of social-emotional teaching methods, demonstrating its predictive role in school engagement. Soltys (2021) also explored the relationship between social and emotional competence and school engagement finding that students' perceptions of social and emotional competence significantly predict their school engagement. Social and emotional competencies were identified by Santos et al. (2023) as critical predictors of student engagement, based on their multi-level modeling findings. Karamanlı-Gül (2019) found that middle school students' social-emotional learning skills significantly predicted their levels of school engagement. These studies support the findings of the current research indicating that social and emotional learning levels, competencies, and skills affect students' school engagement.

The analysis revealed that social and emotional learning significantly mediates the relationship between school culture and school engagement among high school students, with a partial mediating effect confirmed. A literature review found no prior studies examining this indirect relationship. Lagrimas and Buenaventura (2023) found that a constructivist learning environment partially mediates the relationship between school culture and student engagement in a study involving variables with similar characteristics. The research concludes that school culture enhances social and emotional learning, which subsequently boosts school engagement, with social and emotional learning partially mediating this relationship.

### **Conclusion and Recommendations**

Based on the research findings, it is recommended that school counselors, school administrators, teachers, and parents implement interventions to strengthen the school culture. These kinds of efforts could indirectly enhance students' school engagement. Moreover, school counselors can implement psychoeducational programs based on social and emotional learning to increase students' school engagement. School counselors can conduct school-wide initiatives to create a school culture that positively impacts students' social and emotional learning. These efforts could lead to an increase in students' levels of school

engagement. This study focused on high school students; future research could explore similar variables among middle school students in adolescence. Additionally, new research models could investigate the mediating effects of variables other than social and emotional learning.

**Ethics Committee Approval:** The study received ethical clearance from the Aydin Adnan Menderes University Educational Research Ethics Committee (Date: 27.10.2021, Number: 2018-24).

**Informed Consent:** Written informed consent was obtained from the parents of all students participating in this study.

**Peer-review:** External peer review was conducted for this study.

**Author Contributions:** Concept- F.N.D., T.T.; Design- F.N.D., T.T.; Supervision- F.N.D., T.T.; Resources- F.N.D.; Data Collection and/or Processing- F.N.D.; Analysis and/or Interpretation- F.N.D., T.T.; Literature Search- F.N.D.; Writing Manuscript- F.N.D., T.T.; Critical Review- F.N.D., T.T.

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## References

- Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence*, *32*(3), 651-670. <https://doi.org/10.1016/j.adolescence.2008.06.007>
- Arslan, A. (2021). Predictors of the School Dropout Risk in Secondary School Students: School Engagement and School Burnout. *Ankara University Journal of Faculty of Educational Sciences*, *54*(2), 431-458. <https://doi.org/10.30964/auebfd.669522>
- Barth, R. S. (2002). The culture builder. *Educational Leadership*, *59*(8), 6-11.
- Bilgin, O., & Taş, İ. (2018). School Climate and Social Media Addiction as Predictors of School Engagement among Adolescents. *Mediterranean Journal of Educational Research*, *12*(26), 15-33. <https://doi.org/10.29329/mjer.2018.172.2>
- Brady, P. (2005). Inclusionary and exclusionary secondary schools: The effect of school culture on student outcomes. *Interchange*, *36*(3), 295-311. <https://doi.org/10.1007/s10780-005-6867-1>
- Candan, K., & Yalçın, A. F. (2018). Examination of Adolescent's Social Education Learning Skills with Provision of Social Relationship and Level of Hop. *OPUS International Journal of Society Researches*, *9*(16), 319-348. <https://doi.org/10.26466/opus.468698>
- Caraway, K., Tucker, C. M., Reinke, W. M., & Hall, C. (2003). Self-efficacy, goal orientation and fear of failure as predictors of school engagement in high school students. *Psychology in the Schools*, *40*(4), 417-427. <https://doi.org/10.1002/pits.10092>
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs*. ERIC Clearinghouse. <https://casel.org/safe-and-sound-guide-to-sel-programs/?download=true>
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2020). *CASEL's SEL framework: What are the core competence areas and where are they promoted?* <https://casel.org/casel-sel-framework-11-2020/?view=true>
- Ceylan, H., & Özgenel, M. (2022). An Important Factor of Secondary School Students' Engagement to School: School Culture. *Journal of Primary Education*, *13*, 32-46. <https://doi.org/10.52105/temelegitim.13.3>
- Christenson, S. L., Sinclair, M. F., Lehr, C. A., & Godber, Y. (2001). Promoting successful school completion: Critical conceptual and methodological guidelines. *School Psychology Quarterly*, *16*(4), 468-484. <https://doi.org/10.1521/scpq.16.4.468.19898>
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), *Self processes and development* (pp. 43-77). Lawrence Erlbaum.
- Çengel, M., Totan, T., & Çoğmen, S. (2017). Turkish Adaptation Of School Engagement Scale. *Abant İzzet Baysal University Journal of Faculty of Education*, *17*(4), 1820-1837. <https://doi.org/10.17240/aibuefd.2017.17.32772-363966>
- Deal, T. E., & Peterson, K. D. (1990). *The principal's role in shaping school culture*. US Department of Education, Office of Educational Research and Improvement.
- Dolzan, M., Sartori, R., Charkhabi, M., & De Paola, F. (2015). The effect of school engagement on health risk behaviours among high school students: Testing the mediating role of self-efficacy. *Procedia-Social and Behavioral Sciences*, *205*, 608-613. <https://doi.org/10.1016/j.sbspro.2015.09.091>
- Dönmez, Ş. (2018). The examining school climate, school engagement and quality of school life perception in middle school students. *Adnan Menderes University Faculty of Education Journal of Educational Sciences*, *9*(2), 1-17.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405-432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Elias, M. J., Zins, J. E., Weissberg, K. S., Greenberg, M. T., Haynes, N. M., & Kessler, R. (1997). *Promoting social and emotional learning: Guidelines for educators*. Association For Supervision and Curriculum Development.



- Ergüç-Şahan, B., & Özgenel, M. (2021). Pattern of the relationships between second school students' engagement to school and academic achievements and school effectiveness. *The Journal of International Education Science*, 27(8), 86-103 <https://doi.org/10.29228/INESJOURNAL.51469>
- Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, 59(2), 117-142. <https://doi.org/10.3102/00346543059002117>
- Finn, J. D. (1993). *School engagement & students at risk*. National Center for Education Statistics.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74(1), 59-109. <https://doi.org/10.3102/00346543074001059>
- Fredricks, J. A., Blumenfeld, P., Friedel, J., & Paris, A. (2005). School engagement. In K. A. Moore & L. H. Lippman (Eds.), *What do children need to flourish: Conceptualizing and measuring indicators of positive development* (pp. 305–321). Springer.
- Fullarton, S. (2002). *Student engagement with school: Individual and school-level influences*. Australian Council for Educational Research.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, 95(1), 148-162. <https://doi.org/10.1037/0022-0663.95.1.148>
- Gauley, J. (2017). *Pathways to student engagement in school: Exploring the effects of school climate on school engagement*. (Publication No. 10277195) [Unpublished Doctoral Thesis, The University of Wisconsin-Madison]. The University of Wisconsin.
- Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and emotional learning as a public health approach to education. *The Future of Children*, 27(1), 13-32.
- Hayes, A. (2022). *Introduction to mediation, moderation, and conditional process analysis a regression-based approach* (3rd ed.). Guilford Press.
- Higgins-D'Alessandro, A., & Sadh, D. (1998). The dimensions and measurement of school culture: Understanding school culture as the basis for school reform. *International Journal of Educational Research*, 27(7), 553-569. [https://doi.org/10.1016/S0883-0355\(97\)00054-2](https://doi.org/10.1016/S0883-0355(97)00054-2)
- İhtiyaroğlu, N. (2014). *Relationships between school climate, teacher effectiveness and students' school attachment*. (Publication No. 366254) [Unpublished Doctoral Thesis, Gazi University-Ankara]. Institute of Social Sciences.
- İkiz, F. E., & Sağlam, A. (2017). The relation between tendency to violence and the level of school engagement. *Elementary Education Online*, 16(3), 1235-1246. <https://doi.org/10.17051/ilkonline.2017.330253>
- İşeri, İ. (2016). *Investigation of the relationships between emotional intelligence level and social emotional learning skills of high school students*. (Publication No. 431335) [Unpublished Master's Thesis, Sakarya University-Sakarya] Institute of Educational Sciences.
- Kabakçı, Ö.F., & Totan, T. (2013) Effects of social and emotional learning skills on life satisfaction and hope. *Journal of Theoretical Educational Science*, 6(1), 40-61.
- Kalaycı, H., & Özdemir, M. (2013). The influence of students' perceptions toward quality of school life on their school engagement. *Gazi University Journal of Gazi Educational Faculty*, 33(2), 293-315.
- Karababa, A. (2020). The reciprocal relationships between school engagement and self-esteem among Turkish early adolescents: a three-wave cross-lagged model. *Children and Youth Services Review*, 116, 105-114. <https://doi.org/10.1016/j.childyouth.2020.105114>
- Karamanlı Gül, C. (2019). *The relationships between school engagement, social emotional learning skills and academic self-efficacy in middle school students*. (Publication No. 567773) [Unpublished Master's Thesis, Ankara University-Ankara] Institute of Educational Sciences.
- Karasar, N. (2012). *Scientific research method* (Twenty-third edition). Nobel.
- Kılıç, M. (2022). *The effect of vocational high school students' perceived social support and attitudes to vocational education on school engagement: The example of Esenyurt district of İstanbul province*. (Publication No. 755555) [Unpublished Master's Thesis, Istanbul Aydın University-Istanbul] Graduate Education Institute.
- Koçak, S., & Ay, M. H. (2020). The mediating role of school engagement on the relationship between high school students' perception of democratic school culture and their academic aspiration. *YYU Journal of Education Faculty*, 17(1), 959-990. <https://doi.org/10.33711/yyuefd.800885>
- Lagrimas, E. L. M., & Buenaventura, V. P. (2023). The mediating effect of constructivist learning environment on the relationship between school culture and student engagement in technology and livelihood education. *European Journal of Education Studies*, 10(1), 91-117. <https://doi.org/10.46827/ejes.v10i1.4620>
- Li, Y., Lynch, A. D., Kalvin, C., Liu, J., & Lerner, R. M. (2011). Peer relationships as a context for the development of school engagement during early adolescence. *International Journal of Behavioral Development*, 35(4), 329-342. <https://doi.org/10.1177/016502541140257>
- Maddox, S. J., & Prinz, R. J. (2003). School bonding in children and adolescents: Conceptualization, assessment, and associated variables. *Clinical Child and Family Psychology Review*, 6(1), 31-49. DOI: 10.1023/a:1022214022478
- Mantz, L. S., Bear, G. G., Yang, C., & Harris, A. (2018). The delaware social-emotional competency scale (DSECS-5): evidence of validity and reliability. *Child Indicators Research*, 11(1), 137-157. DOI:10.1007/s12187-016-9427-6
- Merter, K. (2013). *The relationship between social emotional learning and self-esteem of the secondary school students*. (Publication No.348336) [Unpublished Master's Thesis, Yeditepe University-Istanbul] Graduate School of Social Sciences.

- Mosher, R., & McGowan, B. (1985). *Assessing student engagement in secondary schools: Alternative conceptions, strategies of assessing, and instruments*. Research and Development Center.
- Newmann, F. M., Wehlage, G. G., & Lamborn, S. D. (1992). The significance and sources of student engagement. In F. Newmann (Ed.), *Student engagement and achievement in American secondary schools* (pp. 11-39). Teachers College Press.
- Okur, S., Danacı F. N., & Totan, T. (2022). The moderation role of social and emotional learning on the effect of school engagement on motivation. *Humanistic Perspective*, 4(2), 334-352. DOI:10.47793/hp.1113429
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70(3), 323-367. <https://doi.org/10.3102/00346543070003323>
- Özdemir, Y. (2015). School burnout in secondary school students: role of homework, school engagement and academic motivation. *Adnan Menderes University Faculty of Education Journal of Educational Sciences*, 6(1), 27-35.
- Peterson, K. D., & Deal, T. E. (2002). *The shaping school culture fieldbook*. Jossey-Bass.
- Recepoglu, E. (2014). Managing change in school culture. N. Güçlü. (Ed.), *School culture* (205-241). Pegem Academy.
- Ross, K. M., & Tolan, P. (2018). Social and emotional learning in adolescence: Testing the CASEL model in a normative sample. *The Journal of Early Adolescence*, 38(8), 1170-1199. <https://doi.org/10.1177/0272431617725198>
- Santos, A. C., Arriaga, P., Daniel, J. R., Cefai, C., Melo, M. H., Psyllou, A., ... & Simões, C. (2023). Social and emotional competencies as predictors of student engagement in youth: a cross-cultural multilevel study. *Studies in Higher Education*, 48(1), 1-19. DOI:10.1080/03075079.2022.2099370
- Sarı, M. (2013). Sense of school belonging among high school students. *Anadolu University Journal of Social Sciences*, 13(1), 147-160.
- Simons-Morton, B. G., & Crump, A. D. (2003). Association of parental involvement and social competence with school adjustment and engagement among sixth graders. *Journal of School Health*, 73(3), 121-126. DOI:10.1111/j.1746-1561.2003.tb03586.x
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4), 571-581. <https://doi.org/10.1037/0022-0663.85.4.571>
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69(3), 493-525. <https://doi.org/10.1177/0013164408323233>
- Soltys, A. B. (2021). *Social-emotional competence, interpersonal relationships, and rules: multilevel associations with student engagement*. (Publication No. 28547529) [Unpublished Doctoral Thesis, University of Delaware-Delaware]. Faculty of the University of Delaware
- Stolp, S., & Smith, S. C. (1995). *Transforming school culture: stories, symbols, values & the leader's role*. ERIC Clearinghouse on Educational Management.
- Şimşek, H., & Çöplü, F. (2018). The examination of the relationship between the levels of showing risky behaviors and the levels of attachment to school of high school students. *Ahi Evran University Institute of Social Sciences Journal*, 4(1), 18-30. <https://doi.org/10.31592/aeusbed.358223>
- Şişman, M. (2004). *Instructional leadership*. (2nd ed.). Pegem A Publishing.
- Şişman, M. (2020). *The quest for excellence in education: effective schools*. Pegem Academy.
- Taş, İ. (2017). Relationship between internet addiction, gaming addiction and school engagement among adolescents. *Universal Journal of Educational Research*, 5(12), 2304-2311. <https://doi.org/10.13189/ujer.2017.051221>
- Totan, T. (2018). Development of adolescents' social and emotional learning scale. *Marmara University Atatürk Education Faculty Journal of Educational Sciences*, 48(48), 41-58. DOI: 10.15285/maruaebd.393209
- Tüten, M. (2023). *School climate as a predictor of social-emotional learning skills in adolescents*. (Publication No. 777770) [Unpublished Master's Thesis, Atatürk University-Erzurum]. Institute of Educational Sciences.
- Wang, M. T., & Fredricks, J. A. (2014). The reciprocal links between school engagement, youth problem behaviors, and school dropout during adolescence. *Child development*, 85(2), 722-737. doi: 10.1111/cdev.12138
- Weissberg, R. P., Durlak, J. A., Domitrovich, C. E., & Gullotta, T. P. (2015). Social and emotional learning: Past, present, and future. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 3- 19). Guilford Press.
- Yang, C. (2015). *Multilevel associations between bullying victimization, school engagement, and social-emotional learning*. (Publication No. 3730233) [Unpublished doctoral dissertation, University of Delaware-Delaware]. Faculty of the University of Delaware.
- Yang, C., Bear, G. G., & May, H. (2018). Multilevel associations between school-wide social-emotional learning approach and student engagement across elementary, middle, and high schools. *School Psychology Review*, 47(1), 45-61. DOI: 10.17105/SPR-2017-0003.V47-1
- Yang, C., Chan, M. K., & Ma, T. L. (2020). School-wide social emotional learning (SEL) and bullying victimization: Moderating role of school climate in elementary, middle, and high schools. *Journal of School Psychology*, 82, 49-69. <https://doi.org/10.1037/spq0000423>

Yavrutürk, A. R., İlhan, T. & Baytemir, K. (2020). Social support and school climate as predictors of school connectedness in high school students. *Bartın University Journal of Faculty of Education*, 9(2), 334-351. <https://doi.org/10.14686/buefad.653345>

Yeager, D. S. (2017). Social and emotional learning programs for adolescents. *The Future of Children*, 27(1), 73-94. <https://doi.org/10.1353/foc.2017.0004>

Yıldız, A., & Kahraman, S. (2021). The relationship between resilience, social emotional learning skills and life satisfaction in secondary school students. *Journal of School Counseling*, 4(2), 23-60.

Yılmaz, F. (2019). Turkish adaptation of school culture scale. *Journal of Civilization and Society*, 3(2), 167-179.