School Climate as a Predictor of Secondary School Students’ School Attachment*

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ABSTRACT

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Purpose: The present research is conducted to identify whether or not school climate is predictive of secondary school students’ attachment to school. In the research, a quantitative research model, namely relational survey model, was preferred. The research population consists of secondary school students attending public secondary schools under the National Education Directorate of Pendik District in 2018 year. The research sample was identified by stratified sampling method. In the sampling, the schools were divided into upper, secondary and lower groups. One school was selected for each by random sampling method.

From the secondary schools identified, 773 secondary school students including 370 female and 403 male students participated in the research. Research data was collected using an Information Form, the School Attachment Scale and School Climate Scale. Data was analyzed by anova, t-test, correlation and regression tests.

Findings: According to the analysis results, the perception of secondary school students of school climate and their school attachment level varied significantly based on their sex and grade level. A positive and medium level relationship was identified between the school climate and secondary school students’ attachment to school, teachers and friends.

Implications for Research and Practice: The results of the study provided that the school climate was significantly predictive of secondary school students’ level of attachment to school, friends and teachers. Based on these results, the characteristics of a positive school climate as perceived by students may be researched and a positive school climate can be created with the cooperation of individuals comprising the school society to improve the students’ level of attachment to school.

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Introduction

Education plays an important role not only in the development or change of a society and individual, but also in the continuation of its development and in the realization of its change in the desired direction. Although schools are the lowest unit of education systems, they are the organizations where education services are offered to society and individuals. The quality of the service offered by the schools is directly related to the cognitive, affective and behavioural acquisitions of the students. Students’ interaction and experiences at school have a permanent impact on their academic success and future life (Haynes, Emmons & Ben-Avie, 1997, pp.321-322). When looked from such perspective, schools contribute greatly to raising happy and successful individuals. Education practitioners and researchers realized the importance of the context in which learning occurred, particularly the impact and importance of school climate on students’ academic, social and emotional results, (Berkowitz et al., 2017) and conducted several studies on the subject. The research shows that there is a relationship between the school climate and student disciplinary problems and violent behaviors (Bosworth, Ford, & Hernandaz, 2011; Brault, Janosz, & Archambault, 2014; Calik et al., 2009; Eliot et al., 2010; Gregory et al., 2010; Konold & Cornell, 2015; Kuperminc, Leadbeater, & Blatt, 2001; Loukas, Suzuki & Horton, 2006; Ozdemir, 2015; Simons-Morton et al., 1999; Thapa et al., 2013; Wang et al., 2010; Welsh, 2000), school effectiveness (Senel & Buluc, 2016), academic success (Akey, 2006; Berkowitz et al., 2017; Cohen et al., 2009; Cornell, Shukla, & Konold, 2016; Hopson & Lee, 2011; Hoy, Smith, & Sweetland, 2002; Kozina et al., 2008; Kozina et al., 2010; MacNeil, Prater, & Busler, 2009; Martin et al., 2004; Mullis, Martin, & Foy, 2008; Parish, 2002; Schotland, 2011; Thomasson, 2006; Wang & Holcombe, 2010), safety (Bosworth, Ford, & Hernandaz, 2011; Canli, 2016; Freiberg, 1998; Hoy et al., 2002; Kuperminc, Leadbeater, & Blatt, 2001; Welsh, 2000), school attendance (Cornell, Shukla, & Konold, 2016; Lee et al., 2011), student motivation (Eccles et al., 1993), adaptation to school (Kuperminc et al., 1997; Simons-Morton et al., 1999; Welsh, 2000), self-esteem (Kosciw et al., 2013; Schotland, 2011), quality of school life (Donmez, 2016), school size (Cotton, 1996), alcohol and drug abuse (Bosworth, Ford, & Hernandaz, 2011), depression (Loukas, Suzuki & Horton, 2006; Schotland, 2011), mental health and psychological well-being (Aldridge & McChesney, 2018), family poverty (Hopson & Lee, 2011), and school identification and school outcomes (Lee et al., 2017).

School climate can be described as beliefs, attitudes and values that characterize a multi-dimensional (Freiberg, 1999, p. 3) school life and quality (Adelman & Taylor, 2011a; Deer, 1980), determine school structure and differentiate one school from another, occur as a result of the interactions between groups comprising the school society and guide the behaviors of these groups (Brown, Anfara, & Roney, 2004; Cohen et al., 2009; Hoy, Tarter & Kottkamp, 1991; Loukas, Suzuki & Horton, 2006; McEvoy & Welker, 2000; Thapa et al., 2013). Another description is that school climate is a psychosocial content teachers seek to teach students (Johnson, Stevens & Zwoch, 2007). School climate refers to the spheres of school life and shared vision, and healthy or unhealthy, conscious or unrecognized spheres (Cohen et al., 2009, p. 182). According to Freiberg and Stein (1999) school climate is viewed as a factor that motivates students and as
reason for teachers to be there every day (Johnson, Stevens, & Zwoch, 2007). School climate is the quality (Cohen et al., 2009, p. 182), spirit and hearth (Freiberg & Stein, 1999), atmosphere (Secrist, Paden, & McNee, 1983) and character of school life, since school life is based on people’s experiences (Brown et al, 2004; Cohen et al., 2009; Halpin & Croft, 1963; Hoy et al., 1991; Hoy & Miskel, 2010; Welsh, 2000).

Research aiming at identifying the climate at schools or other organizations is like seven blind men describing an elephant. Each one of them focuses in a different dimension of the climate and contends findings according to this dimension. The climate also varies significantly based on environmental factors (ecologic, environment, social system or culture) (Anderson, 1982, p.376). For instance, a sustainable, positive school environment (i) encourages individuals’ development and learning, (ii) supports their feeling safe, and (iii) connects people with each other. (iv) Students, families and educators support working together to develop and maintain a shared school vision and contribute. (v) Educators model and feed the attitudes emphasizing the benefits and satisfaction they get from the learning-teaching process (vi) School society contributes to school activities and the protection of the physical environment (Piscatelli & Lee, 2011, pp.1-2).

The National School Climate Council report (2007) suggested that the school climate had encouraged or weakened children's development, learning and success in the last twenty years. Students stated that they had positive social relationships, were respected, participated in school activities and felt competent in a safe and supportive school environment. Ever-increasing number of reports, studies and legislation stressed the importance of a positive school climate for mitigating success inequities, improving healthy development and supporting the skills, knowledge and tendencies and life success forming the basis for the 21st century school (Piscatelli & Lee, 2011, and improving teachers’ job satisfaction, creating an effective learning environment for students (Hoy et al., 1991). Further, teachers describe a positive and cooperative school climate as the most important factor affecting their decision of staying at a school (Hirsch, Eric, Emerick, & Scott, 2007).

Halpin & Croft (1963) investigated the behaviors of principals and teachers and identified the (i) open, (ii) autonomous, (iii) controlled, (iv) familiar, (v) paternal, (vi) closed climate structures. These climate structures were rated from positive open climate to negative closed climate. While the open climate is an energetic, lively organization which is moving toward its goals, and which provides satisfaction for the group members' social needs (Halpin & Croft, 1963), as well as being supportive and sincere and where ideas are respected, there is attachment to school and productive working environment (Hoy & Sabo, 1998), a closed climate is characterized by a stagnant organization where disingenuity, pretense and apathy are very common among the group members (Halpin & Croft, 1963). Hoy et al. (1991), on the other hand, identified the dimensions of school climate as supportive, directive and restrictive principal behaviors and friendly, cooperative and indifferent teacher behaviors.

Elements comprising a school climate are broad and complex (Marshall, 2004). Although there is no list of factors that shape the character and quality of school life,
many researchers agree that there are four main dimensions that clearly shape the school climate. These are; safety (rules and norms, physical safety, social and emotional safety), learning-teaching process (social, affective and ethical learning, quality of teaching, professional development, leadership), interpersonal relationships (respect for diversity, school community and cooperation, social support from adults and peers) and environmental structure (human and physical environment; cleanliness, sufficient space and materials, aesthetic quality, school size; curriculum and extracurricular offerings) (Cohen et al., 2009; Center for Social and Emotional Education, 2010). Thapa et al. (2013) added school improvement process as the fifth dimension. The National School Climate Council (2007) added personnel relationships (leadership and professional relationships) to the initial four dimensions (Piscatelli & Lee, 2011). Likewise, the U.S. Department of Education identified three inter-related domains in the Safe and Supportive Schools’ school climate These are student attachment (relationships, respect to diversity and school participation), safety (social-emotional and physical safety, substance abuse) and school environment (physical environment, academic environment, and health and disciplinary environment) (Bradshaw & O’Brien, 2014). However, there is no agreement as to which dimensions of school climate must be measured validly. In this respect, the research on school climate contributes to improving and developing ideas about which aspects to evaluate (Center for School and Emotional Education, 2010).

One of the subdimensions that must be regarded in the “relationships” dimension that comprises school climate is school attachment. With the adaptation of the relationships dimension to social groups and organizations, the concept of school attachment emerges. In a general sense, attachment refers to the emotional bond between the youth and other people (Clevenger & Birkbeck, 1996). School attachment, on the other hand, is a common term that encompasses school and student relationships as a structure that includes positive student actions such as student attendance, participation in school and class activities and the emotional bond of student with school (Libbey, 2004, p. 275; Önen, 2014, p. 221).

There are different theories about attachment in the literature. For example, according to Bowlby (1969, 1973, 1980, 1982), the relationship an infant develops with his/her primary caretaker constitutes the basis for his/her subsequent attachment models. These models strongly affect how a child establishes relationships with others, approaches his/her environment as well as the subsequent stages of his/her development (as cited by Erickson, Sroufe, & Egeland, 1985, p. 147). Another theory that attempts to describe school attachment is social attachment. Social attachment refers to the extent an individual is sensitive to others’ views (Costella, 2010, p. 4). Individuals have bonds with social values, social environment and social institutions. This social bond controls the behaviors of individuals who are inclined to commit criminal or abnormal acts, and prevent them from committing a crime (Hirschi, 1969). Hirschi also believes that the level of attachment to teachers and school is a determinant of their school success (Pratt, Gau, & Franklin, 2010). In other words, individuals feel concerned about others’ views as much as they have an emotional bond with others such as parents, friends and teachers. An individual who fears losing
others’ respect and love is less likely to commit a crime (Costella, 2010, p. 4). In short, it may be suggested that these bonds as asserted by Bowlby and Hirschi affect students’ behaviors toward their school, peers and teachers and help control their undesired behaviors.

Since school attachment has an impact on educational outcomes such as academic success and abandonment of school (Fredricks, Blumenfeld, & Paris, 2004), it has attracted the attention of researchers and has been researched as part of school life. It is possible to see studies focusing on the relationship between school attachment and ego (Alparslan, 2016; Finn & Rock, 1997; Wang & Eccles, 2013), trust in school (Arabikoglu, 2016), academic success (Bellici, 2015; Cornell, Shukla, & Konold, 2016; Fall & Robert, 2012; Finn & Rock, 1997; Griffin, 2014; Johnson, Crosnoe, & Elder, 2001; Klem & Connell, 2004; LeCroy & Krysik, 2008; Lee, 2008; Moe et al., 2009; Perry, Liu, & Fabian, 2010; Wang & Holcombe, 2010; Wang & Eccles, 2013; Wang, Willett, & Eccles, 2011; Wang et al., 2015), school attendance and abandonment of school (Fall & Robert, 2012; Finn & Rock, 1997; Klem & Connell, 2004; Wang, Willett, & Eccles, 2011), undesired behaviors and bad habits (Black et al., 2010; Cornell, Shukla, & Konold, 2016; Gottfredson et al., 2005; Hill, & Werner, 2006; Karaşar & Kapç, 2016; Konold & Cornell, 2015; Saglam & Ekiz, 2017; Simons-Morton et al., 1999; Yang, 2015), adjustment to school (Simons-Morton et al., 1999), educational goals (Cornell, Shukla, & Konold, 2016; Griffin, 2014), school life quality (Donmez, 2016), career planning (Perry et al., 2010), school size, socio-economic and ethnic structure (Finn & Voelkl, 1993; Fullarton, 2002), motivation (Fullarton, 2002; Hill, & Werner, 2006), depression and school fatigue (Özdemir, 2015; Wang et al. 2015), subjective duty values (Wang & Eccles, 2013), attitude toward classes (Filiz, 2018), perceived school support (Christensen, 2014), control focus, preparation for school and classes (Finn & Rock, 1997), safe learning environment and school types (Gaulley, 2017), fairness and discrimination (Griffin, 2014), Internet and game addiction (Tas, 2017), self-efficacy and social support (Mengi, 2011), academic expectation (Konold & Cornell, 2015), life satisfaction (Ozdemir & Koruklu, 2013) and school socialization style (Lee, 2008).

Students’ success (Fredricks, Blumenfeld, & Paris, 2004) and the effectiveness of schools are to a large extent associated with students’ school attachment (Ozdemir & Kalayci, 2013). In other words, it is unquestionably a prerequisite for individuals to be committed to school since they need to become successful and acquire the skills they need in today’s conditions (Fredricks, Blumenfeld, & Paris, 2004). This attachment consists of three dimensions including cognitive, affective and behavioral (Onen, 2014). Qualitative differences in each dimension vary based on the intensity of the attachment. A dimension’s intensity can make the attachment a desirable outcome. Once attachment is established, it is possible to say that the attachment builds on itself and thus contributes to the more improvement of other variables (Fredricks, Blumenfeld, & Paris, 2004). A positive attitude, perception and response developed by students toward school, teachers and peers are in the affective dimension. Students’ actions such as participation in extracurricular activities and learning process (school attendance), completing their assignments, grade point average and scores in achievement tests, performance and adherence to school rules and grade advancement are in the behavioral dimension. Students’ perception and beliefs about themselves,
school, teachers and other students, and ability to perceive challenging and complex situations and create solutions are in the cognitive dimension (Fredricks, Blumenfeld, & Paris, 2004; Jimerson, Campos, & Greif, 2003). In short, it can be suggested that the cognitive, affective and behavioral dimensions of school attachment focus on students’ attachment to teachers, peers and school (Jimerson, Campos, & Greif, 2003). It is particularly regarded important to understand which factors affect the improvement of school attachment and what it means to maintain the attachment at the same level (Wołowska, 2014). In fact, these factors are dynamically interrelated and their outcomes must be investigated (Fredricks, Blumenfeld, & Paris, 2004).

School climate plays an important role in ensuring a healthy and positive school environment (Marshall, 2004) and thus can be considered a way or a mediating variable to mitigate abandonment of school and improve learning and school attachment (Fredricks, Blumenfeld, & Paris, 2004). It has also been identified that the school attachment of students who feel that they are in a safe environment improves (Freiberg, 1998) and that absenteeism and delinquency rates of students whose school attachment has improved decrease (Calik, Kurt & Calik, 2011). The fact that the school climate has a physical, social and academic impact on students and that the school attachment has a behavioral, cognitive and affective impact have made it necessary and important to address these variables together. A positive school climate that can be created can make individuals feel committed to school. A student that feels committed to school can be a successful and happy person that has a goal and become integrated with the society instead of demonstrating negative behaviors such as turning into crime and gaining bad habits. From this perspective, it is considered important to identify whether or not the school climate perceived by secondary school students is predictive of their school attachment. However, a very limited number of studies were seen to focus on dealing with the school climate factor as an important predictor of school attachment in our country. In this respect, the present study, which is conducted to identify whether or not school climate is predictive of students of level of attachment to school, is believed to offer some ideas to teachers, administrators, parents, guidance and psychological counselors in understanding students’ behaviors of school attachment, responding to, preventing and protecting from abandonment of school, absenteeism, discipline and undesired behaviors, low academic success and contribute to other studies focusing on school climate and school attachment and the evaluation of school life quality. Responses to the following questions were sought in line with the overall objective of the research:

i) Do secondary school students’ perception of school climate and school attachment level vary significantly based on their sex and grade level?

ii) Is there a significant relationship between secondary school students’ perception of school climate and school attachment level?

iii) Is secondary school students’ perception of school climate predictive of their school attachment level?
Method

Research Design

In the present research, a qualitative research method, relational survey model, was preferred to identify whether or not the independent variable (school climate) is predictive of the dependent variable (school attachment). Relational survey is a model that identifies the relationship between two or more variables on participants in the same study group and predicts the effect of independent variable on a dependent variable (Gliner, Morgan, & Leech, 2015).

Research Sample

The research sample consists of public schools from Pendik District of Istanbul Province in 2018 year. Required permissions were obtained from official authorities to conduct the research. Stratified sampling method was preferred to determine the research sample. Stratified sampling is a probability sampling method where groups with similar characters in a population are divided into subgroups and sample is obtained from each subgroup by random sampling (Neuman, 2006, p. 335). According to the Pendik District National Education Directorate data (2018), there are 33,503 students in 38 public secondary schools. However, the religious vocational school students were not included. Schools were divided into lower, secondary and upper groups based on socio-economic status and one school was selected from each group. There are 3,752 students in the three selected schools. Students were assured in line with the principle of confidentiality that the research results would only be used for research and were not applied any pressure and time limitations in order to enable them to respond to the scale items accurately and candidly. From the selected schools, 773 students from every grade level (grades 5, 6, 7 and 8) volunteered to participate. 370 of these students are female and 403 thereof are male students. 330 of the students are at fifth grade, 233 at sixth grade, 133 at seventh grade and 77 at eighth grade. Based on +/- 5% acceptable error rate and 99% reliability level, the sample size was calculated as 651. 733 students participating in the study were decided to have the sample size enough to represent the population.

Research Instruments and Procedures

In the research, the School Climate Scale developed by Calik and Kurt (2010) was used as the data collection instrument to identify the students’ level of perception of school climate. The scale is a 5-point Likert type scale (Never, Rarely, Sometimes, Frequently, Always) consisting of four subdimensions (Supportive Teacher Behaviors, Success Focus, Safe Learning Environment and Peer Interaction) and 22 items. Seven items in the scale (12, 14, 16, 18, 19, 21, 22) were scored reversely. With the adding of the scores from all items, a total score is acquired. A high score from the scale reflects a positive school climate while a low score reflects a negative school climate. In the research, confirmatory factor analysis ($\chi^2=165.132; df=62; \chi^2/df=2.663; GFI=.967; AGFI=.952; NFI=.957; CFI=.973; SRMR=.034; RMSEA=.046$) was performed to test the construct validity of the scale and Cronbach Alpha reliability coefficient was calculated as 0.814.
To identify the students’ attachment to school in the research, the School Attachment Scale for Children and Adolescents developed by Hill and Werner (2006) and adapted into Turkish by Savi (2011) was used. The scale is a 5-point Likert type scale (Absolutely Yes, Yes, Maybe, No, Absolutely No) consisting of 13 items and three subdimensions (School Attachment, Friend Attachment, Teacher Attachment). A high score from the scale shows a high school attachment while a low score shows a low school attachment. In the research, confirmatory factor analysis ($\chi^2=732.959; df=202; \chi^2/df=3.629; GFI=.920; AGFI=.900; NFI=.827; CFI=.868; RMR=.029; SRMR=.076; RMSEA=.058$) was performed to test the construct validity of the scale and Cronbach Alpha reliability coefficient was calculated as 0.859.

**Data Analysis**

Data was analyzed using SPSS statistical program. Unrelated-independent groups t-test was performed to determine whether or not school climate perception and school attachment level of secondary school students vary significantly based on sex, the one-way analysis of variance (ANOVA) was performed to determine whether the same vary based on their grade levels, correlation analysis was performed to determine the relationship between school climate and school attachment, and regression analysis was performed to calculate whether or not the school climate is predictive of students’ school attachment level.

**Results**

Independent groups t-test results performed to determine whether secondary school students’ school climate perception and school attachment levels vary based on their sex are provided in Table 1.

**Table 1**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>N</th>
<th>X</th>
<th>ss</th>
<th>t</th>
<th>sd</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>School climate</td>
<td>Female</td>
<td>370</td>
<td>3.67</td>
<td>.58</td>
<td>2.81</td>
<td>771</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>403</td>
<td>3.57</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School attachment</td>
<td>Female</td>
<td>370</td>
<td>4.37</td>
<td>.53</td>
<td>3.31</td>
<td>771</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>403</td>
<td>4.24</td>
<td>.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When Table 1 is examined, secondary school students’ school climate perception varies significantly based on their sex ($t[771]=2.81; p<.01$). Female students’ school climate perception ($X=3.69$) is more positive than that of male students ($X=3.57$). Secondary school students’ school attachment perception varies significantly based on their sex ($t[771]=3.31; p<.01$). Female students’ school attachment level ($X=4.37$) is higher than that of male students ($X=4.24$).

Results of the one-way analysis of variance (ANOVA) performed to determine whether secondary school students’ school climate perception varies based on grade level is provided in Table 2.
Table 2
ANOVA Results of School Climate Scale Scores by Grade Level

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Ss</th>
<th>Source</th>
<th>KT</th>
<th>sd</th>
<th>KO</th>
<th>F</th>
<th>p</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Grade</td>
<td>330</td>
<td>3.83</td>
<td>.56</td>
<td>Between G.</td>
<td>36.79</td>
<td>3</td>
<td>12.26</td>
<td></td>
<td></td>
<td>5-6, 5-7, 5-8;</td>
</tr>
<tr>
<td>6. Grade</td>
<td>233</td>
<td>3.62</td>
<td>.56</td>
<td>Within G.</td>
<td>234.92</td>
<td>769</td>
<td>30</td>
<td>40.14</td>
<td>.000</td>
<td>6-7, 6-8; 7-8</td>
</tr>
<tr>
<td>7. Grade</td>
<td>133</td>
<td>3.48</td>
<td>.49</td>
<td>Total</td>
<td>271.71</td>
<td>772</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Grade</td>
<td>77</td>
<td>3.11</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>773</td>
<td>3.63</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

When Table 2 is examined, significant differences are seen among students’ school climate perceptions based on their grade levels (F=40.14; p<.001). According to the results of the LSD test performed to identify the grades by which student perception of school climate varies, 5th-grade students’ perception of school climate (X=3.83) is more positive than that of 6th-grade students (X=3.62), 7th-grade students (X=3.48) and 8th-grade students (X=3.11); 6th-grade students’ perception of school climate (X=3.62) is more positive than that of 7th-grade students (X=3.48) and 8th-grade students (X=3.11); and 7th-grade students’ perception of school climate (X=3.48) is more positive than that of 8th-grade students (X=3.11). In other words, students’ positive perception of school climate decreases as their grade level increases.

Table 3
ANOVA Results of School Attachment Scale Scores by Grade Level

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>X</th>
<th>Ss</th>
<th>Source</th>
<th>KT</th>
<th>sd</th>
<th>KO</th>
<th>F</th>
<th>p</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Grade</td>
<td>330</td>
<td>4.43</td>
<td>.48</td>
<td>Within G.</td>
<td>34.70</td>
<td>3</td>
<td>11.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Grade</td>
<td>233</td>
<td>4.37</td>
<td>.51</td>
<td>Within G.</td>
<td>205.38</td>
<td>769</td>
<td>.26</td>
<td>43.31</td>
<td>.000</td>
<td>5-7, 5-8; 6-7, 6-8; 7-8</td>
</tr>
<tr>
<td>7. Grade</td>
<td>133</td>
<td>4.19</td>
<td>.53</td>
<td>Total</td>
<td>240.08</td>
<td>772</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Grade</td>
<td>77</td>
<td>3.72</td>
<td>.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>773</td>
<td>4.30</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When Table 3 is examined, a significant difference is seen among students’ school attachment levels based on their grade levels (F=43.31; p<.001). According to the results of the LSD test performed to identify between which grades students’ school attachment level varies, 5th-grade students’ school attachment level (X=4.43) is higher than that of 7th-grade students (X=4.19) and of 8th-grade students (X=3.72); 6th-grade students’ school attachment level (X=4.37) is higher than that of 7th-grade students (X=4.19) and 8th-grade students (X=3.72); and 7th-grade students’ school attachment level (X=4.19) is higher than that of 8th-grade students (X=3.72).
level (X=4.19) is higher than that of 8th-grade students (X=3.72). In other words, students' school attachment level decreases as their grade level increases.

The results of the correlation analysis performed to determine the relationship between the school climate perception and school attachment level of the secondary school students are provided in Table 4.

**Table 4**

Results of Correlation Analysis between School Climate Perception and School Attachment Level of the Secondary School Students

<table>
<thead>
<tr>
<th>Variable</th>
<th>School Attachment</th>
<th>Friend Attachment</th>
<th>Teacher Attachment</th>
<th>School Attachment Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Teacher Behaviors</td>
<td>r .487**</td>
<td>.373**</td>
<td>.549**</td>
<td>.581**</td>
</tr>
<tr>
<td>Success Focus</td>
<td>r .380**</td>
<td>.314**</td>
<td>.410**</td>
<td>.457**</td>
</tr>
<tr>
<td>Safe Learning Environment and Peer Interaction</td>
<td>r .375**</td>
<td>.344**</td>
<td>.265**</td>
<td>.417**</td>
</tr>
<tr>
<td>School Climate Total</td>
<td>r .350**</td>
<td>.461**</td>
<td>.519**</td>
<td>.638**</td>
</tr>
</tbody>
</table>

According to the correlation analysis provided in Table 4, there is a significant medium-level and positive relationship between student school climate perceptions and school attachment levels (r=.63; p<.01); a significant medium level and positive relationship between school climate and the sub-dimensions of school attachment, school attachment (r=.55; p<.01), friend attachment (r=.46; p<.01) and teacher attachment (r=.52; p<.01). A significant medium level and positive relationship is seen between the total score of students’ school attachment and the sub-dimensions of school climate, supportive teacher behaviors (r=.58; p<.01), success focus (r=.45; p<.01) and safe learning environment and peer interaction (r=.41; p<.01).

The results of the regression analysis performed to determine whether the school climate perceived by the students is predictive of the students' school attachment level are provided in Table 5.

**Table 5**

Results of Regression Analysis to Determine Whether the School Climate Perceived by the Students is Predictive of the Students’ School Attachment Level

<table>
<thead>
<tr>
<th>Independent</th>
<th>Dependent</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>p</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Climate</td>
<td>School Attachment</td>
<td>1.60</td>
<td>.147</td>
<td>.550</td>
<td>10.91</td>
<td>.000</td>
<td>.550</td>
<td>334.38</td>
<td>.000</td>
</tr>
<tr>
<td>School Climate</td>
<td>Friend Attachment</td>
<td>2.38</td>
<td>.133</td>
<td>.461</td>
<td>17.96</td>
<td>.000</td>
<td>.461</td>
<td>208.41</td>
<td>.000</td>
</tr>
<tr>
<td>School Climate</td>
<td>Teacher Attachment</td>
<td>2.32</td>
<td>.125</td>
<td>.519</td>
<td>18.64</td>
<td>.000</td>
<td>.519</td>
<td>284.35</td>
<td>.000</td>
</tr>
<tr>
<td>School Climate Total</td>
<td>School Attachment Total</td>
<td>2.12</td>
<td>.096</td>
<td>.638</td>
<td>22.14</td>
<td>.000</td>
<td>.638</td>
<td>529.77</td>
<td>.000</td>
</tr>
</tbody>
</table>
When Table 5 is examined, school climate is significantly predictive of students’ school attachment level ($r^2=.30; p<.001$), friend attachment level ($r^2=.21; p<.001$), teacher attachment level ($r^2=.27; p<.001$) and total school attachment level ($r^2=.40; p<.001$). In other words, 30% of the total variance of students’ school attachment level, 21% of the total variance of their friend attachment level, 26% of their teacher attachment level and 40% of the total variance of their school attachment level is explained by school climate ($\beta=.643; r=.638; r^2=.408; F=264.97; p<.001$).

**Discussion, Conclusion and Recommendations**

School climate is created by the school society. A positive school climate is perceived by students, parents and employees as welcoming and characterized by respectful interactions between the individuals. Students feel motivated to succeed and the personnel exhibits the importance of the school and learning. The school is clean, well-maintained and welcoming. A combination of these characteristics results in the perception of the school as a good place to be (Lee, 2005). The present research investigates whether or not school climate is predictive of secondary school students’ school attachment, and whether or not student perception of school climate and school attachment level vary based on their sex and grade level. According to the findings of the research, secondary school students’ perception of school climate varies significantly based on their sex. Female students’ school climate perception is more positive than that of male students. In the literature are studies suggesting that female students’ school climate perception is more positive than that of male students (Donmez, 2016; Filiz, 2018; Simons-Morton et al., 1999) and female teachers’ school climate perception is more positive than that of male teachers (Aka, 2014; Canli, 2016). As the main reason for this variance can be suggested as that female and male students ascribe a different meaning to the school. For instance, female students perceive school as a place that protects and improves them while male students perceive school as a place that oppresses them (Ozdemir & Kalayci, 2013). The more negative or poorer school climate perception of male students that see the school as a place that oppresses them than that of female students can be regarded as one of the reasons for the variance.

Another result obtained from the research is that school attachment level of secondary school students varies based on their sex. Female students’ school attachment level is higher than that of male students. In the research conducted by Arastamam (2006), Bellici (2015), Can (2008), Fullarton (2002), Donmez (2016), Mengi (2011), Ozdemir & Kalayci (2013), Schotland (2011), Simons-Morton et al (1999), Wang et al. (2011) at secondary school and high school levels, female students’ school attachment level is higher than that of male students. However, there are also studies that suggest that male students’ school attachment level is higher than that of female students (Onuk, 217). In addition, organizational attachment of female and male academic members at higher education varies significantly. Organizational commitment of female academic members is higher than that of male academic members (Moore & Moore, 2014). The main reason for this variance can be suggested
to be social gender role. For, an individual's sex determines his/her behaviors in the society (Kiran, 2017). In this respect, social gender roles ascribed to students in the Turkish culture may affect how differently school is perceived and their school attachment levels. If social gender roles for education are defined differently in a society, individuals act in accordance with these roles or be forced to act appropriately. Otherwise, it can be accepted and rejected as unwanted behaviour by society. The positive perspective of the society towards education, its contribution to schooling rate, its support for school attendance, and the fact that it considers education as an investment for the future life of the individual can positively affect the school attachment of the individual.

It has been concluded in the research that secondary school students' perception of school climate and school attachment level vary significantly based on grade. In the literature, secondary school and high school students’ perception of school climate (Donmez, 2016; Ozdemir & Kalayci, 2013; Simons-Morton et al., 1999; Wang et al., 2010) and school attachment levels decrease as their grade level increases (Bellicci, 2015; Filiz, 2018; Mengi, 2011; Schotland, 2011; Simons-Morton et al., 1999; Wang & Holcombe, 2010). The result attained in the present research and the results of other research in the literature are consistent. One of the reasons for this variance can be suggested as that students become used to the school climate as their grade level increase, and thus that the effect of school climate on students, their awareness of and interest in it increase.

According to another result of the research, there is a medium-level and positive relationship between secondary school students’ perception of school climate and their school attachment. There are several researches in the literature that identify a significant positive relationship between secondary school and high school students’ perception of school climate and their attachment level (Dempsey, 2008; Donmez, 2016; Ozdemir & Kalayci, 2013; Ozdemir et al., 2010; Simons-Morton et al., 1999). Also, Turan (1998) and Cornell, Shukla & Konold (2016) found a significant relationship between teachers’ perception of school climate and school attachment. When this research's and other research's results are evaluated together, it can be suggested that there is a positive relationship between both students’ and teachers’ perception of school climate and school attachment level and that their school attachment level will increase as their perception of school climate increases, or the other way around.

One of the significant results obtained in the research is that secondary school students’ perception of school climate is significantly predictive of their school attachment level. Likewise, in the literature, students’ (Fullarton, 2002; Gauley, 2017; İhtiyaroğlu, 2014; Ozdemir & Kalayci, 2013; Wang & Eccles, 2013; Wang & Holcombe, 2010) and teachers’ (Antony & Mahendran, 2016) perception of school climate is an important predictor of their school attachment levels. The relationship between the climate and commitment or attachment is seen not only at schools providing educational services but also at organizations producing goods and services (Noordin et al., 2010; Smith, 2009; Turan, 1998; Bahrami, 2016; Ozyer, 2010; Schwepker, 2001; Akbas, 2010; Kaplan, 2010; Ma’amor, et al., 2012; Cetin Gurkan, 2006; Dinc & Plakalovic, 2016; Kaplan, 2010; Korkmaz, 2011; Riad, Labib, & Nawar, 2016). The
relationship between these two concepts as well as the organizational climate have also been found to be predictive of organizational commitment (Basar, 2009; Bilgen, 2014; Bozgul, 2018; Crawford, 2008; Caglar, 2008; Cetin Gurkan, 2006; Dinc & Plakalovic, 2016; Kaplan, 2010; Korkmaz, 2011; Riad, Labib, & Nawar, 2016). According to the above results, the positive relationship between secondary school students’ perception of school climate and school attachment level and school climate’s being predictive of students’ school attachment level show how important school climate is for students. Further, results obtained in the present research support the theory and research that assert that school climate is an important factor that is predictive of students’ school attachment levels.

In conclusion, the present research suggests that secondary school students’ perception of school climate and school attachment level vary based on their sex and grade level and that school climate is an important predictor of students’ school attachment. Based on these results, it can be said that school attachment level of students that perceive their school positively and believe that the rules of conduct are openly and fairly managed in their school will increase. Academic success of students whose school attachment increases will also increase (Akey, 2006; Klem & Connell, 2004; Konold & Cornell, 2015; Moë et al., 2009; Thomasson, 2006). There are attempts to characterize school attachment with school attendance, class participation, course preparation and attendance, completion of assignments, participation in extracurricular activities (Willms, 2003). Students who participate less in extracurricular activities at school or have poor school attachment have been found to exhibit problematic behaviors (Simons-Morton et al., 1999), and be more likely to commit crime or be involved in crime (McNeal, 1995). In addition, students who do not feel they belong to the school or do not share school values are said to feel estranged from school and feel rejected (Willms, 2003). In this respect, school climate is an important element for students to feel committed to school and for their school success (Doll, 2010, p. 12). In order to maintain the school attachment and re-attract the attention of disinterested students, conditions that adversely affect the internal motivation must be minimized and conditions that have a positive motivational effect must be maximized (Adelman & Taylor, 2011b, p. 2) and school climate must be positively improved. In summary, practitioners who wish to bring students up to the aimed level in cognitive, affective and behavioral fields must first take into consideration expanding their knowledge about school climate to improve or develop school life and environment.

Improving or developing the school climate is an invaluable step and strategy to improve students’ school attachment (Klem & Connell, 2004). In addition to school climate’s positive effect on academic performance, protective and preventive measures can be taken against the problems of school abandonment and absenteeism such as creating an effective learning environment and organizing extracurricular and intramural activities that will attract student attention. “Commissions for the Improvement of School Climate” can be established at schools. Counseling service support can be used to determine, develop and improve students’ perception of school climate. Negative factors that affect school climate and school attachment level can be
identified by taking students’ opinion at certain intervals and students can be enabled to feel they belong to the school by protective efforts. Students’ school attachment can be improved by procuring parent participation in school and parent support.

Maybe the foremost important point that requires attention about school climate is to determine the effect of school climate on student outcomes i.e. student achievements. The second most important stage following the determination of this effect is to look for the ways to create a positive school climate. While school attachment of students who perceive a positive and supportive school climate increases, they can be more successful, have less intramural and extramural undesired behaviors, can be protected against bad habits, improve their school attendance and have less school abandonment. A negative school climate, on the other hand, decrease students’ attachment to their school, teachers and peers, cause them to distance themselves from class and school activities, lead to negative or undesired behaviors, increase school abandonment and absenteeism and lead to a negative attitude toward school. Eliminating and fighting against such negative consequences may be one of the biggest problems educators have. In this respect, it may be an incomplete perspective to correlate the results of studies focusing on the relationship between school climate and school attachment with academic success. It must be placed at the heart of all school improvement efforts besides academic success such as school safety and health. The present research is limited to the generalizability of the results obtained since it was conducted in Pendik district. Therefore, results can be obtained and generalized by conducting similar research in different provinces or districts.

References


Ortaokul Öğrencilerinin Okula Bağlılıklarının Bir Yordayıcısı Olarak Okul İklimi

Atıf:

Özet


Okul iklimin öğrencinin fiziksel, sosyal ve akademik etkinliği bulunmasını; okula bağlılığın davranışsal, bilişsel ve duyuşsal etkisini olmasına, bu değişkenlerin birlikte ele alınması gereklidir. Okul ikliminin öğrencinin fiziksel, sosyal ve akademik etkinliği bulunmasını; okula bağlılığın davranışsal, bilişsel ve duyuşsal etkisini olmasına, bu değişkenlerin birlikte ele alınması gereklidir.

Araştırmanın Amacı: Bu araştırma, okul ikliminin ortaokul öğrencilerinin okula bağlılıklarını yordayıcılık yordamadığının belirlemesi önemli görülmektedir. Ancak ülkemizde okula bağlı hissedenden öğrencinin okula bağlılıklarını yordayıcılık yordamadığını belirlemek için sınırlı sayıda çalışmanın yapılmıştır. Bu bağlamda okul ikliminin ortaokul öğrencilerinin okula bağlılıklarını yordayıcılık yordamadığını belirlemek için sınırlı sayıda çalışmanın yapılmıştır. Bu bağlamda okul ikliminin ortaokul öğrencilerinin okula bağlılıklarını yordayıcılık yordamadığını belirlemek için sınırlı sayıda çalışmanın yapılmıştır.
Ortaokul öğrencilerinin okul iklimi algıları, okula bağlılık düzeylerini yordamaktı mı?


Bulgular: Analiz sonuçlarına göre oradaokul öğrencilerinin okul iklimi algıları ve okula bağlılık düzeyleri cinsiyetlerine ve sınıf seviyelerine göre anlamlı farklılık göstermiştir. Okul iklimi ile oradaokul öğrencilerinin okula, öğretmene ve arkadaşa bağlılık düzeyleri arasında pozitif ve orta düzeyde ilişki tespit edilmiştir. Araştırmada okul ikliminin, oradaokul öğrencilerinin okula, arkadaşa ve öğretmenle bağlılık düzeyleriini anlamlı bir şekilde yordadığı sonucuna ulaşılmıştır.


Anahtar Kelimeler: Okula bağlanma, arkadaşa bağlanma, öğretmenle bağlanma, okul iklimi.