THE RELATIONSHIP BETWEEN SCHOOL CLIMATE AND STUDENT ACHIEVEMENT IN READING IN PUBLIC ELEMENTARY SCHOOLS IN VIRGINIA, USA

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ABSTRACT

In the past decade, teachers and researchers have recognized the vital role school climate plays in the public school setting in the United States (Thapa, Cohen, Guffey & Higgins-D'Alessandro, 2013). One of the greatest indicators of achievement is the relationship between school and student socioeconomic status (Sirin, 2005). According to Bryk and Schneider (2003), if schools create positive learning environments, students will achieve at a higher level than what their socioeconomic background would otherwise predict. The purpose of this quantitative study was to identify the relationship between school climate and student academic achievement in reading at the elementary level in public schools in Virginia, USA. The researcher examined extant data from the 2018-2019 school year, which included Grade 5 Reading Virginia Standards of Learning (SOL) pass rates and school climate surveys from two school divisions in the Commonwealth of Virginia. The findings indicated that the school climate dimension had the strongest correlation to the Reading SOL pass rates in both school districts. School leaders and building-level principals could use these findings to better understand the importance of school climate and its impact on student achievement.

INTRODUCTION

In the past decade, teachers and researchers have recognized the vital role school climate plays in the public-school setting in the United States (Thaps, Cohen, Guffey, & Higgins-D'Alessandro, 2013). School climate can improve student achievement and decrease high school dropout rates and problem behaviors (Wang & Degol, 2015). According to Bryk and Schneider (2003), if schools create positive learning environments, students will achieve at a higher level compared to what their socioeconomic background might otherwise predict. How well a student performs in school is a strong predictor of their future education, occupation, and salary potential (United States Department of Labor, 2017). Therefore, the aim of this study was to determine whether there was a correlation between school climate and academic achievement in Reading at the elementary school level.

REVIEW OF LITERATURE

President Obama signed into law the Every Student Succeeds Act (ESSA) on December 10, 2015. This act reauthorized the Elementary and Secondary Education Act (ESEA), which was passed by President Lyndon Johnson in 1965 as part of his War on Poverty campaign (Zinskie & Rea, 2016). ESSA offers support and resources to schools that are in danger of academic loss due to environmental factors such as poverty (Zinskie & Rea, 2016). According to Chenoweth (2016), one of the main principles of ESSA is that school personnel must imagine that "all students can succeed" (p. 1).

ESSA goes beyond traditional assessment methods by requiring school districts to use at least one non-academic measure in their accountability methods for documenting overall student

achievement and school quality (Blad, 2016). Schools must have the ability to analyze the data connected to the measures to show whether there is any effect on various subgroups, such as English language learners (Blad, 2016). ESSA provides examples of feasible measures states can examine, including school climate and safety and student engagement (Blad, 2016).

The term organizational climate dates back to the 1950s when school researchers were attempting to form different types of concepts in the school workplace (Hoy, 1990). School climate is a phrase that indicates teachers' view of their work setting; it is affected by the school administration, informal organization, formal organization, and the personality of the staff (Hoy, 1990). A school's organizational climate is based on the internal qualities that differentiate schools from each other and affect the behavior of its staff (Hoy, 1990).

According to Wang and Degol (2015), positive school climates can improve student attainment and decrease dropout rates and problem behavior. ESSA highlights the correlation between student achievement and school climate. Having a positive school climate is vital for minority and underprivileged children (Booker, 2006; Haynes, Emmons & Ben-Avie, 1997). Konold, Cornell, Shukla and Huang (2017) posit that a fundamental question to be considered is whether students from minority groups think about school climate the same way as Caucasian students from majority groups. For instance, school conduct procedures could feel less fair for students of color than for Caucasian students (Gregory & Weinstein, 2008). According to Konold et al. (2017), minority children could also experience higher levels of mistreatment and bullying than Caucasian students. According to Kann et al. (2016), "the prevalence of having not gone to school because of safety concerns was higher among black (6.8%) and Hispanic (7.6%) than white (4.2%) students and higher among black male (6.9%) and Hispanic male (7.6%) than white male (2.9%) students" (p. 9).

According to White, LaSalle, Ashby and Meyers (2014), student views of and reaction to school climate are because of racial/culture and gender differences. Schneider and Duran (2010) discovered that Hispanic/Latino middle school students' responses differed significantly from Caucasian and Asian students. The research revealed that intimate connections with teachers were more significant than demonstrating positive behavior for Hispanic/Latino students (Thapa et al., 2013). Hispanic/Latino girls might recognize a positive school climate more than boys in elementary and high school (White et al., 2014). African American students in general usually report a lower awareness of school climate (White et al., 2014). It is vital that school leaders identify how a positive school climate could be felt by children from various racial, ethnic, and cultural groups (Schneider & Duran, 2010).

From Kindergarten to high school graduation, students will spend approximately 11,700 hours in school (Hull & Newport, 2011). The National School Climate Center (2007) outlines four elements that form school climate: relationship, safety, teaching and learning, and institutional environment. Students who feel secure at school will experience more growth and development (Devine & Cohen, 2007). School climate has been shown to affect student discipline, school attendance, school size, and teachers' sense of job fulfillment. According to Bryk and Schneider (2003), if schools create positive learning environments, students will achieve at a higher level compared to what might otherwise be predicted by their socioeconomic background. How well students perform in school is a strong forecast of their future education, occupation, and salary potential (United States Department of Labor, 2017).

STATEMENT OF THE PROBLEM

School climate affects student discipline, school attendance, and teachers' sense of job fulfillment (National Association of School Psychologists, 2016). Previous researchers have studied secondary school climate and student achievement, but few have focused on climate at the elementary school level. Since elementary school is the foundation of a child's education, there was a need for more research on elementary school climate and its impact on student achievement. Assessing school climate can bring awareness to key school traditions that are frequently overlooked, which could help advance school culture by refining teaching procedures and schoolwide tactics for supporting students academically, socially, and emotionally (Kostyo, Cardichon & Darling-Hammond, 2018).

PURPOSE STATEMENT

The purpose of this quantitative study was to identify the relationship between school climate and academic achievement at the elementary school level. The researcher examined extant data from the 2018-2019 school year from one Northern VA and one Central VA school district, which included Grade 5 Reading Standards of Learning (SOL) pass rates and school climate surveys.

RESEARCH QUESTION

What is the relationship among the four school climate dimensions (interpersonal relationships, safety, teaching and learning, and institutional environment) and student achievement measured by the fifth-grade Reading SOL pass rate?

CONCEPTUAL FRAMEWORK

According to the National School Climate (2007), school climate consists of four essential dimensions: interpersonal relationships, safety, teaching and learning, and institutional environment. These four dimensions may have a correlation, positive or negative, with student achievement which in this study is the pass rate in Grade 5 Reading Standards of Learning as shown in Figure 1.

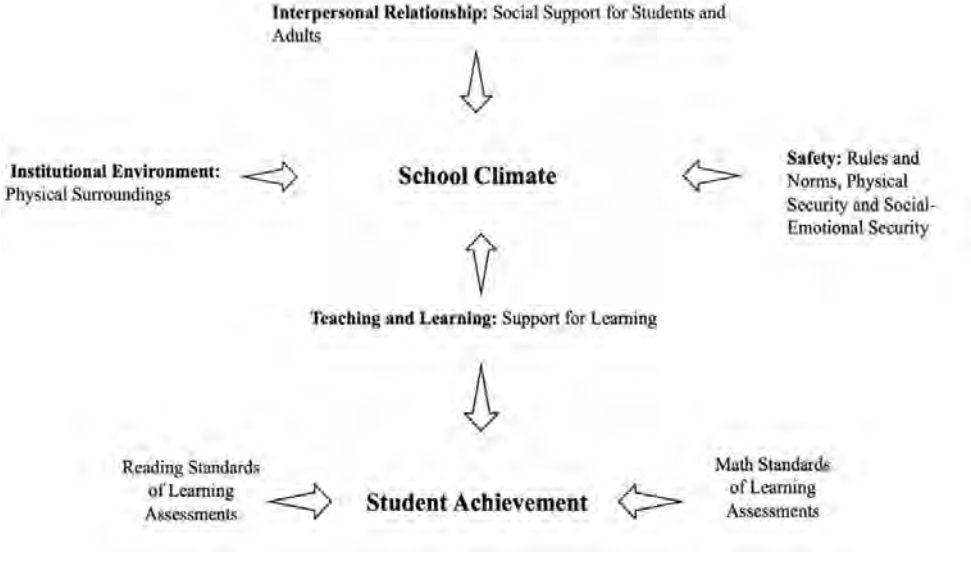

Figure 1: *Conceptual framework.*

The Interpersonal Relationships dimension which is defined as social support for students and adults helps to form school climate. The Safety dimension, which is defined as rules and norms, physical security and social-emotional security helps to form school climate. The Teaching and Learning dimension which is defined as support for learning helps to form school climate. The Institutional Environment dimension which is defined as physical surroundings helps to form school climate. These four school climate dimensions affect student achievement which is being measured by the Reading pass rates.

METHODOLOGY

Data Collection

The researcher completed a multi-step process in collecting data from the 2018-2019 school year from 97 elementary schools in two divisions in the Commonwealth of Virginia. The first school division, referred to in this study as the Central VA division, has 46 elementary schools. The second, referred to as the Northern VA division, has 51 elementary schools. The Virginia Department of Education (VDOE) mandates that schools in Virginia administer the Virginia School Climate Survey in Grades 4 and 5 as well as Grades 9–12; this is done through a partnership with the University of Virginia and Virginia Department of Criminal Justice Services.

The first step is to utilize the VDOE website to review each school's School Quality Profile Report, which showed its accreditation status and assessment scores. According to VDOE (2020), the SOL is a group of assessments public schools in the state of Virginia must administer to their students in Grades 3–12. The SOL assessments determine baseline expectations for skills and knowledge students should know and will acquire at the conclusion of each grade in Mathematics, Science, English, and History (VDOE, 2020). Students are assessed on content that should have been reviewed by their classroom teacher throughout the academic school year. SOL results ultimately affect a school's yearly accreditation status (VDOE, 2020). After reviewing each school's SOL results, the researcher reviewed their School Climate Survey results. The two school divisions administered different School Climate surveys to their communities, but the surveys shared similar underlying concepts and themes that they could both be used for this study. (See Table 1.)

Table 1
Data Collection

Data Source	Data
School Quality Profile	Assessments (Grade 5 Reading pass rates)
Central VA Climate Survey	Academic Growth Equity and Opportunity Relationships Safety and Wellness
Northern VA Climate Survey	Engagement Relationships Expectations Safety

Research Design

Quantitative research uses mathematical calculations to encapsulate, report, and study connections between traits (McMillan & Wergin, 2010). The researcher used the Pearson correlation coefficient (r) to examine the correlation between student achievement and school climate at the elementary level. According to Stevenson and Lindeberg (2010), "a Pearson's Correlation Coefficient is a statistic measuring the linear interdependence between two variables or two sets of data" (p. 389859). A Pearson correlation coefficient, shown in Figure 2, is also named the product-moment correlation coefficient; it uses p for population and r for a sample. "Pearson's r has a range of (−1, 1), with 0 indicating no relationship between the variables and the larger absolute values indicating a stronger relationship between the variables" (Boslaugh, 2012, p. 182). This formula allowed the researcher to take advantage of the full range of variance in the data without collapsing into categories and provided more detailed and interpretable results. The researcher used Evans's (1996) methods to describe the strength of the correlations between the school climates and the Reading and Mathematics SOL pass rates. The following is the breakdown: .00-.19 (very weak), .20-.39 (weak), .40-.59 (moderate), .60-.79 (strong) and .80-1.0 (very strong).

$$r = \frac{\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^{n}(x_i - \bar{x})^2 \sum_{i=1}^{n}(y_i - \bar{y})^2}}$$

Figure 2: *Pearson's correlation coefficient formula. From Penn State Eberly College of Science, 2018. 2.6 - (Pearson) Correlation Coefficient r.*
Retrieved from https://online.stat.psu.edu/stat462/node/96/

Research Participant Sample Selection

The sample selection was 97 elementary schools with almost 10,000 fifth graders from two school divisions in Virginia: Northern VA had 51 elementary schools and Central VA had 46 elementary schools. The information was retrieved from the VDOE School Quality Profile. These two divisions were selected because their school climate data were readily available to the public and they were located in two different regions of Virginia. The participating schools served as the unit of research for this study, not individual student data.

Data Analysis

The researcher used SPSS to analyze the statistical data from the study to determine whether there was an association between the four dimensions of school climate and the SOL assessment pass rates. The Pearson correlation coefficient was used to examine the correlation between student achievement (fifth-grade SOL Reading pass rates) and school climate at the elementary level.

The researcher relied on extant data from the 2018–19 school year, which included reviewing individual school's Grade 5 Reading SOL pass rates and school Climate Survey data. The Climate Survey data came from two school districts in the Commonwealth of Virginia. The districts' surveys asked different questions but had the same underlining meaning. The Northern Virginia School climate surveys sections are the following: Engagement (N:9), Relationship (N:18), Expectations (N:12) and Safety (N:12). The Central Virginia school climate surveys sections are the following Safety and Wellness (N:11), Academic Growth(N:14), Equity and Opportunity (N:8),

and Relationship (N:6). Scoring scales were constructed using all variables without missing data in the relevant sections of each survey with different questions and scales. For each school district, the researcher created four scales based off the subsets determined by the school district. The researcher coded the original values from the reports and then they were standardized so that the scale for each dimension would range from 0 to 1. The lowest possible value was 0 and the highest possible value was 1. The next step the researcher took was to take the mean from the recoded values to create the scales. For example, if there were nine items, they were added together and then divided by nine.

Table 2 presents the four school climate dimensions (Engagement, Relationship, Expectations, and Safety), Cronbach's alpha reliability, mean, and standard deviation, organized by the Northern VA School District.

Table 2
Northern VA School Climate Dimensions

Dimension	A	M	SD	Items
Engagement (Institutional Environment)	0.751	.7762	.02550	9
Relationship (Interpersonal Relationships)	0.945	.6883	.01995	18
Expectations (Teaching and Learning)	0.901	.7807	.02407	12
Safety	0.797	.7928	.04125	12

Table 2 shows the Engagement school climate dimension descriptive statistics were as follows: $\alpha = 0.751$, M = .7762, and SD = .02550. The Relationship school climate dimension descriptive statistics were as follows: $\alpha = 0.945$, M = .6883, and SD = .01995. The Expectations school climate dimension descriptive statistics were as follows: $\alpha = 0.901$, M = .7807, and SD = .02407. The Safety school climate dimension descriptive statistics were as follows: $\alpha = 0.797$, M =.7928, and SD = .04125. The Northern VA district relationship school climate dimension has the highest score, $\alpha = 0.945$, M = .6883, and SD = .1995, compared to the other school climate dimensions. The Relationship school climate dimension for Northern VA district has the highest Cronbach's alpha. The Safety school climate dimension has the highest mean and standard deviation score compared to the other school climate dimensions.

Table 3 presents the four school climate dimensions (Safety and Wellness, Academic Growth, Equity and Opportunity and Relationships), Cronbach's alpha reliability, mean, and standard deviation, organized by the Central VA School District.

Table 3
Central VA School Climate Dimensions

Dimension	A	M	SD	Items
Safety and Wellness (Safety)	0.789	.7702	.05394	11
Academic Growth (Teaching and Learning)	0.823	.8025	.03579	14
Equity and Opportunity (Institutional Environment)	0.852	.8118	.04743	8
Relationships (Interpersonal Relationships)	0.791	.7991	.05686	6

Table 3 shows the Safety and Wellness school climate dimension descriptive statistics were the following: $\alpha = 0.789$, M= .7702, and SD = .05394. The Academic Growth school climate dimension descriptive statistics were the following: $\alpha = 0.823$, M = .8025, and SD = .8025. The Equity and Opportunity school climate dimension descriptive statistics were the following: $\alpha = 0.852$, M = .8118, and SD = .05686. The Relationship school climate dimension descriptive statistics were the following: $\alpha = 0.791$, M =.7991, and SD = .05686. The Equity and Opportunity school climate dimension for Central VA district had the highest Cronbach's alpha, mean, and standard deviation score compared to the other school climate dimensions.

DATA RELATED FINDINGS

Table 4 presents the Northern VA school climate dimensions and the correlation to the fifth-grade Reading SOL pass rates. Northern VA's fifth-grade Reading SOL pass rates had a moderate positive correlation to the Relationships (r = .435) dimension and a weak positive correlation to the Engagement (r = .306) and Safety (r = .378) dimensions. The Grade 5 Reading SOL pass rates had no significant correlation to the Expectations (r = -.028) dimension. The Relationships dimension had the strongest correlation to the Reading SOL (r = .435), compared to the other school climate dimensions.

Table 4
Northern VA Reading Correlations

Measure	1	2	3	4	5
1. Reading	–				
2. Engagement	.306*	–			
3. Relationships	.435**	.863**	–		
4. Expectations	-.028	.744**	.752**	–	
5. Safety	.378**	.482**	.536**	.417**	–

Note. N = 57
*$p < .05$. **$p < .01$

The first school climate dimension in the Northern VA school district was Engagement. The Engagement dimension had a very strong positive correlation with the Relationships (r = .863) dimension, a strong positive correlation with Expectations (r = .744), and a moderate positive correlation with Safety (r = .482). The second dimension, Relationships, had a very strong positive correlation with Engagement (r = .863), a strong positive correlation with Expectations (r = .752), and a moderate positive correlation with Safety (r = .536). The third school climate dimension was Expectations. The Expectations dimension had a strong positive correlation with Engagement (r = .744) and Relationships (r = .752) and a moderate positive correlation with Safety (r = .417). Finally, the Safety dimension had a moderate positive correlation with Engagement (r = .482), Relationships (r = .536), and Expectations (r = .417). The Northern VA district school climate survey data and the Grade 5 SOL pass rates revealed that the Relationship dimension had the strongest correlation to the Reading SOL pass rates. The Expectations dimension had no significant correlation to the Reading SOL pass rates compare to the Relationship dimension.

Table 5 presents the Central VA school climate dimensions and the correlation to the fifth grade Reading SOL pass rates.

Table 5
Central VA Reading Correlations

Measure	1	2	3	4	5
1. Reading	–				
2. Safety & Wellness	.613**	–			
3. Academic Growth	.210	.664**	–		
4. Equality & Opportunity	.305	.825**	.872**	–	
5. Relationships	.653**	.839**	.727**	.755**	

Note. $N = 38–42$
$^{**}p < .01$.

Table 5 shows that the Central VA district Grade 5 Reading SOL pass rates had a strong positive correlation to the Safety and Wellness ($r = .613$) and Relationships ($r = .653$) dimensions but no significant correlation to the Academic Growth ($r = .210$) or Equity and Opportunity ($r = .305$) dimensions. The Relationships dimension had the strongest correlation to the Reading SOL ($r = .653$), compared to the other school climate dimension.

The first school climate dimension in the Central VA district was Safety and Wellness. The Safety and Wellness dimension had a strong positive correlation to Academic Growth ($r = .664$) and a very strong positive correlation with Equity and Opportunity ($r = .872$) and Relationships ($r = .727$). The second school climate dimension in the Central VA school district, Academic Growth, had a strong positive correlation with Safety and Wellness ($r = .664$) and a very strong positive correlation with Equity and Opportunity ($r = .872$) and Relationships ($r = .727$). The third school climate dimension was Equity and Opportunity. The Equity and Opportunity dimension had a very strong positive correlation to Safety and Wellness ($r = .825$), Academic Growth ($r = .872$), and Relationships ($r = .755$).

Finally, the Relationships dimension had a very strong correlation to Safety and Wellness ($r = .839$) a strong correlation to Academic Growth ($r = .727$) and Equity and Opportunity ($r = .755$). The Relationships dimension had the strongest correlation to the Reading SOL pass rates. The Academic Growth dimension had the weakest correlation to the Reading SOL pass rates, compared to the Relationships dimension.

In Northern VA the Relationships dimension had the strongest correlation to the Reading SOL ($r = .435$), which is a moderate positive correlation. This correlation is considered statistically significant. Similarly, in Central VA, the Relationships dimension had the strongest correlation to the Reading SOL ($r = .653$), which is a strong positive correlation.

SUMMARY OF FINDINGS

Finding 1: The Relationships dimension had the strongest positive correlation to the Reading SOL pass rates.

The Relationships dimension was consistent across both school districts. In Northern VA, Relationships had a moderate positive correlation to the Reading SOL pass rates, $r = .435$. In Central VA, Relationships had a strong positive correlation to the Reading SOL pass rates, $r = .653$.

According to L. E. Maxwell (2016), teachers who can create relationships with students that are warm, supportive, and focus on academic goals foster better academic success. Jia et al. (2009) found that when Chinese and American students felt they had teacher support, they saw positive correlation in grade point average and self-esteem. Similarly, Jimerson et al. (2012) concluded, "Positive relationships are likely to result in students making increased positive life-course decisions and having more positive perceptions of their self-control, cooperation, self-efficacy, cognitive abilities, and social problem-solving ability" (p. 9).

Finding 2: The Safety dimension had the second strongest positive correlation to the Reading SOL pass rates.

The second school climate dimension that was consistent across both school districts was the Safety dimension. In Northern VA, the Safety dimension had a weak positive correlation to the Reading SOL pass rates, $r = .378$. In Central VA, Safety had a strong positive correlation to the Reading SOL pass rates, $r = .613$.

School safety plays an important role in terms of school climate and student achievement. Positive school climate affects all four essential dimensions, especially school safety. When there are weak relationships, norms, and structures at school, students could experience bullying, violence, and disciplinary infractions, which affect their achievement and attendance (Astor et al., 2010). Students who feel secure at school experience more growth and development (Devine & Cohen, 2007).

Finding 3: Institutional Environment (i.e., Engagement/Equity and Opportunity) had a weak positive correlation to the Reading SOL pass rates.

The Institutional Environment dimension did not have a strong correlation to the Reading SOL pass rates. In Northern VA, the Engagement dimension had a weak positive correlation with Reading SOL pass rates, $r = .306$. In Central VA, the Equity and Opportunity dimension had a weak positive correlation with Reading SOL pass rates, $r = .305$.

Institutional Environment is an essential dimension that is often underestimated but plays a key part in students feeling comfortable and connected. Institutional Environment can be classified into two components: physical design and surroundings and school engagement/connectedness (Thapa et al., 2013). Researchers examining the effect of school building condition on school achievement and behavior found a positive association among student achievement and building condition (O'Neill & Oates, 2001). School facilities in poor condition led to a decrease in student learning, and poorly run facilities lead the way to poor student success (Buckley et al., 2004). Climate control, design arrangements, lighting, indoor air quality, and acoustical control have been linked to student success (Uline & Tschannen-Moran, 2008). According to Simon et al. (2007), facilities with good conditions forecast students' perceived self-respect. Design quality of a building, such as positive classroom furnishings and students' drawings displayed throughout the building, is linked with increased sense of self-respect and connection with the school (Killeen et al., 2003; Maxwell & Chmielewski, 2008).

According to the CDC (2009), school connectedness is "the belief by students that adults and peers in the school care about their learning as well as about them as individuals" (p. 3). Loukas et al. (2006) found that school connectedness was associated with student happiness, fewer behavior problems, and violence prevention. In a study of kindergarten students, students who enjoyed school participated more in independent and cooperative engagement activities, which ameliorated their academic success (Ladd et al., 2000). Zullig et al. (2015) stated that classroom teachers have the influence to control the classroom setting and students' daily events, and they play a vital part in encouraging students' engagement in education.

Finding 4: The Academic Growth dimension (i.e., Expectations/Teaching and Learning) had a weak positive and or nonsignificant correlation to the Reading SOL pass rates.

The Academic Growth dimension did not have a strong correlation to the Reading SOL pass rates. In, Northern VA, Academic Growth had a nonsignificant correlation with Reading SOL pass rates, $r = -.028$. In Central VA, Academic Growth had a weak positive correlation with Reading SOL pass rates, $r = .210$.

Thapa et al. (2013) concluded that teaching and learning is the most essential domain of school climate. According to Cohen et al. (2008), there are two subcategories in teaching and learning: Support for Learning and Social and Civic Learning. Having a positive school climate can increase morale, increase student achievement, and improve teacher performance (Kutsyuruba et al., 2015). A negative school environment could significantly affect learning (Freiberg, 1998; Goddard et al., 2000; Heck, 2000). Shochet and Smith (2012) found that when teachers believed children would not perform up to standard, students did not believe in themselves and became disconnected from the educational process. When there is a higher level of educational pressure, teachers set higher goals, and the principal supports the teacher in accomplishing that goal set, the pupils work hard to accomplish the goals (Hoy et al., 2002). When schools foster a positive school climate, students can be successful while also fostering respect, joint trust, group unity, and a willingness to learn (Thapa et al., 2013).

DISCUSSION BASED ON IMPLICATIONS

The findings from this research led to four implications for practice for building level principals and school district leaders.

Implication 1: Building level principals should consider creating a team within their school to help outline a plan for identifying social emotional goals for relationship building. Implication 1 relates to Finding 1.

The Relationships dimension had the strongest correlation to the Reading SOL pass rates This tells researchers that relationships are key to students' academic success. Stakeholders, including teachers, students, school counselors, principal, parents, and other community members should create a comprehensive plan to address the social emotional needs of their students. For example, teachers using a morning meeting time to do social emotional activities with their students could contribute to a sense of belonging among elementary-aged students.

Implication 2: Building level principals should consider offering professional development that is centered around relationship building. Implication 2 relates to Finding 1.

The Relationships dimension had the strongest correlation to the Reading SOLs for both school districts. Professional development related to relationship building, such as the free materials

created by Sanford Harmony, would allow teachers to build skills and techniques to create secure relationships with their students and families. This could be year-long or at the beginning of the school year.

Implication 3: Schools should provide a clear understanding of schoolwide expectations to maintain a better sense of emotional and physical wellbeing within the school community. Implication 3 relates to Finding 2.

The Safety dimension had the second strongest correlation to Reading SOL pass rates. This suggests that safety plays a key role in creating a positive school climate. Schools should consider creating a PBIS team to help with the implementation of the schoolwide expectations that are developmentally appropriate which in return will make it comprehensible for students.

Implication 4: Building level principals should continually assess school safety. Implication 4 relates to Finding 2.

Principals should regularly and frequently address any miscommunication in terms of the school safety protocols and procedures among teachers, students, and parents. The safety and wellness dimension had the second strongest correlation to the Reading SOL pass rates, which suggests that safety plays a key role in school climate.

LIMITATIONS

A limitation of this study was the limited data available about school climate at the elementary level. Although school climate surveys are required at the secondary level, the Virginia Department of Criminal Justice Services does not require them at the elementary level. Because not all school districts choose to survey at the elementary level, data sets are only available from a few districts. Another limitation is correlational data can determine association between variables but not predict causation. Other limitations include the accuracy of the climate surveys and the reliability of the SOL data.

SUGGESTIONS FOR FUTURE STUDIES

The researcher has the following suggestions for future research based on this study. Data from at least one school division from each of the eight regions in Virginia should be included. This would give a better insight on school climate across the Commonwealth. Another consideration would be to utilize items from the Learning Climate section from the VDOE School Quality Report to see they have any relationship with student achievement. An additional consideration would be to develop a mixed-methods study, incorporating student, parent, and staff interviews to gain insight on various stakeholders' views of school climate and its relationship to student achievement at the elementary school level.

CONCLUSION

School climate has been shown to affect student discipline, school attendance, and teachers' sense of job fulfillment (National Association of School Psychologists, 2016). According to Bryk and Schneider (2003), if schools create positive learning environments, students will achieve at a higher level than would otherwise be predicted by their socioeconomic background. The findings of this study were consistent across both school divisions. The Relationship dimension of school climate had the strongest correlation to the Reading pass rates in both school districts, which was consistent with previous research in this area. It is with this information that school districts and building level

principals understand the importance of school climate and will now make relationships and safety a priority which in return will impact student achievement.

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2019 Virginia School Climate Survey
Student Version – Grades 4 & 5

Algonkian Elementary

The Virginia Department of Education (VDOE) thanks you for recently participating in the Virginia School Climate Survey as part of our work to support the efforts of schools and divisions to improve school climate.

We are pleased to provide you with the average survey responses of students at your school. 134 responses were received which equates to a response rate of 74%.

1. What grade are you in this year? *Mark one.*
   43% 4th Grade
   57% 5th Grade

1. Engagement

A. Emotional Engagement

How strongly do you agree or disagree with the following statements? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
2. I like this school.	1%	2%	50%	46%
3. I am proud to be a student at this school.	0%	4%	51%	44%
4. I feel like I belong at this school.	0%	10%	50%	40%

B. Academic Engagement

How strongly do you agree or disagree with the following statements? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
5. I usually work hard on my schoolwork.	1%	7%	48%	44%
6. I want to learn as much as I can at school.	2%	7%	42%	49%
7. I learn about important things at school.	0%	8%	49%	43%

C. Behavioral Engagement

How strongly do you agree or disagree with the following statements? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
8. It is important that I come to school every day.	1%	14%	50%	35%
9. I help my class make decisions at school.	1%	22%	62%	15%
10. I get to do interesting activities at school.	1%	14%	38%	46%

2. Relationships

A. Relationships among Students

How strongly do you agree or disagree with the following statements? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
11. I care about other students at this school.	0%	3%	39%	58%
12. I get along well with other students at this school.	1%	7%	57%	34%
13. Other students at this school care about me.	7%	11%	57%	25%
14. Other students at this school get along well with me.	2%	12%	56%	30%
15. **[Validity Screening Item]** I am telling the truth on this survey.	0%	0%	20%	80%

B. Adult Respect for Students

How strongly do you agree or disagree with the following statements about this school? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
16. Teachers and other adults at this school care about me.	1%	2%	45%	52%
17. Teachers and other adults at this school want me to succeed.	0%	3%	31%	66%
18. Teachers and other adults at this school listen to what I have to say.	1%	10%	49%	39%
19. Teachers and other adults at this school treat me with respect.	1%	5%	51%	43%

C. Student Willingness to Seek Help

How strongly do you agree or disagree with the following statements about this school? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
20. There are teachers or other adults at this school I could talk with if I needed help with something.	1%	4%	40%	55%
21. I am comfortable asking teachers or other adults at this school for help with my schoolwork.	2%	13%	41%	43%
22. I am comfortable asking teachers or other adults at this school for help to solve a problem I am having with another student.	5%	19%	49%	28%
23. Teachers and other adults at this school will help me if I have a problem.	1%	1%	49%	49%

D. Social-Emotional Learning

How strongly do you agree or disagree with the following statements about this school? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
24. I stop and think before doing anything when I get angry.	1%	19%	52%	28%
25. I work out disagreements with other students by talking with them.	0%	14%	60%	25%
26. I know how to disagree without starting an argument or a fight.	2%	16%	52%	29%
27. I know how to decide right from wrong.	0%	6%	53%	41%
28. I can control myself when I am upset.	0%	12%	51%	37%

3. Expectations

A. Academic Expectations

How strongly do you agree or disagree with the following statements about this school? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
29. Teachers and other adults at this school expect me to succeed.	0%	6%	49%	46%
30. Teachers and other adults at this school provide me the support I need to succeed.	1%	7%	50%	42%
31. Teachers and other adults at this school challenge me academically.	3%	14%	50%	33%

B. Instructional Practices

How strongly do you agree or disagree with the following statements about this school? *Mark one answer per line.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
32. Teachers and other adults at this school expect me to explain my answer to a question.	1%	4%	54%	40%
33. Teachers and other adults at this school ask me to think about different ways to solve problems.	1%	10%	54%	34%
34. I work on projects with other students in my class.	1%	7%	50%	42%
35. Teachers and other adults at this school ask me to talk about what I am learning.	2%	27%	46%	25%
36. Teachers and other adults at this school often connect what I am learning to life outside the classroom.	7%	28%	48%	17%

C. SCHOOL DISCIPLINE STRUCTURE

2019 Virginia School Climate Survey: Students Grades 4-5

55. Are you Hispanic or Latino? *Mark one.*

14% Yes 86% No

56. How many parents live with you? Include biological, step, adoptive, and foster parents. *Mark one.*

1% None

10% One

80% Two

8% More than two

57. How far did your mother go in school? *Mark one.*

0% Did not graduate from high school

6% Graduated from high school

4% Graduated from a two-year college or technical school

11% Graduated from a four-year college

58% Completed post-graduate studies (such as a master's degree or doctoral degree) after graduating from a four-year college

0% I do not know

58. Does your family speak a language other than English at home? *Mark one.*

34% Yes 66% No

59. How many of the questions on this survey did you answer truthfully? *Mark one.*

78% All of them

12% All but 1 or 2 of them

7% Most of them

1% Some of them

1% Only a few or none of them

	Never	Once or Twice	About Once per Week	More than Once per Week
47. Have you been bullied by a student at school in the past month?	67%	23%	3%	7%
48. Have you bullied someone at school in the past month?	98%	0%	1%	1%
49. Have you been bullied by an adult at this school this year?	93%	5%	1%	1%

[If answered positively to any question above (Q47-Q49)] **You have just answered some questions about being bullied in some way.**

	Yes	No
50. Did you tell a teacher or another adult at school what happened?	64%	36%

Have any of the following happened to you personally at school this year? This includes school events like field trips, school dances, and sports events. *Mark one answer per line.*

	No	One Time	A Couple of Times	Many Times
51. A student pushed or hit you when you were not playing around.	72%	16%	8%	4%
52. A student told a mean rumor or a lie about me.	54%	20%	18%	7%

5. DEMOGRAPHICS

53. Are you a boy or a girl? *Mark one.*

48% Boy 52% Girl

54. What is the best description of your race? *If you are more than one race, mark all that apply.*

3% American Indian or Alaska Native

10% Asian

12% Black or African American

1% Native Hawaiian or Pacific Islander

66% White

39% Other Race

55. Are you Hispanic or Latino? *Mark one.*

14% Yes 86% No

56. How many parents live with you? Include biological, step, adoptive, and foster parents. *Mark one.*

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10% One

80% Two

8% More than two

57. How far did your mother go in school? *Mark one.*

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7% Most of them

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1% Only a few or none of them