

## Relationship of School Climate and Effectiveness: Perspectives of Stakeholders and the Correlation to Academic Achievement in Elementary Schools

ISSN: 3068-6695

[doi.org/10.5281/zenodo.20562333](https://doi.org/10.5281/zenodo.20562333)

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### Abstract

The study explored the relationship between school climate and school effectiveness in rural elementary schools, examining Kentucky Summative Assessment (KSA) academic indicators, KSA *Quality of School Climate* and Safety scores, and *Studer Education* surveys. Results from correlation analyses indicated that school climate demonstrated a strong, positive relationship with academic performance utilizing KSA climate surveys. Consequently, *Studer Education* surveys did not reflect statistical significance, nor a strong relationship, with employee surveys indicating a negative correlation. Statistically significant positive correlations were observed among KSA academic indicators, suggesting that schools performing well in one academic area tended to perform well across others.

*Keywords:* rural elementary schools, school climate, school effectiveness, academic achievement

## Correlation to Academic Achievement in Elementary Schools

School climate plays a significant role in shaping the learning environment and influencing student outcomes. School climate refers to stakeholders' shared perceptions of relationships, safety, expectations, fairness, and the overall learning environment within a school. Unlike culture, which reflects deeply embedded values, norms, and traditions of the school that develop over time, climate is reflected in observable conditions and stakeholder perceptions (Celikten, 2006; Altunay & Kaplan, 2024). Climate is commonly understood as the more visible, surface-level expression of those underlying beliefs and values (Gruenert & Whitaker, 2023). In this way, culture helps shape climate and climate reflects how culture is currently being lived out through interactions, expectations, and routines (Ornstein, 2004). Although school climate and school culture are related constructs, this study focuses specifically on school climate because it is more reality captured through stakeholder perceptions and state accountability climate measures.

The characteristics of a school's climate influence not only the quality of the workplace for employees, but also the learning experiences and performance of students. Research has consistently suggested that schools with more positive climates tend to demonstrate higher levels of engagement, stronger relationships, and improved academic outcomes. A positive climate can support academic learning by fostering trust, strengthening student-teacher relationships, reinforcing consistent expectations, and creating conditions in which students feel safe and motivated to achieve.

School climate can be measured through concrete indicators on surveys that address relationships, sense of safety, fairness, academic support, engagement, and expectations from all school stakeholders (Gruenert & Whitaker, 2023). Climate can be captured by the perceptions of stakeholders, which may include students, staff, and parents, which can be improved with quality change. A positive school climate provides a welcoming environment, creates relationships, sustains trust, and influences students' academic achievement. Principal leadership that discovers ways to bring all students and teachers together and employs cultural sustaining pedagogies offers a climate for students to thrive (Altunay & Kaplan, 2024).

### Context

Effective schools are commonly described as those that implement a strong curriculum, maintain clear expectations, and build coherent systems that support student learning. Many models of effectiveness also emphasize the integration of academics with social-emotional learning and behavior expectations. While these components are frequently discussed as part of comprehensive school improvement, the present study defines school effectiveness through Kentucky's accountability indicators, focusing on academic performance outcomes. A healthy school climate, along with a strong evidence-based curriculum, promotes ongoing improvement and school effectiveness (Gandi et al., 2024; Hoy et al., 2006; Leithwood, et al., 2004; Macneil, et al., 2009).

### Purpose of Study

The purpose of this study was to explore the relationship between school climate and school effectiveness of six elementary schools in a rural school district.

School effectiveness was defined by reading and math indicators and the overall achievement index as defined by the state's accountability assessment. The districts' combined *Studer Education* survey data sets were assessed to determine the relationship of school climate to the key elements required for school effectiveness defined by the state education department. Extensive research has reported that continuous analysis and utilization of data-driven evidence enhanced academic achievement and school effectiveness (Bayar & Karuduman, 2021; Courtney, 2022; Freeman et al., 2016; Gandhi et al., 2024; Michael et al., 2023).

### Conceptual Framework

The concepts of the Systems View of School Climate (SVSC) were applied throughout the study. The core idea of the theoretical framework of SVSC is that school climate is the result of perceptions of all stakeholders within a school community. The multi-dimensional facets include social interactions, sense of safety, values, beliefs, and the academic environment (Rudasill, et al., 2018). The application of this concept would support the opinion that a positive school climate would lead to school effectiveness.

### Research Problem

This article examined the correlation between school climate and academic achievement by identifying various measures completed by diverse stakeholders to determine school climate. *Studer Education* surveys were administered at the beginning of the year to students, parents/caregivers, and all employees. The Kentucky Summative Assessment (KSA) *Quality of School Climate and Safety* survey was administered to students at the end of

the year during the state accountability testing window.

### Research Question

How does school climate correlate with academic achievement?

- a. How does school climate, as measured by student perspectives on the *Studer Education* survey, correlate with academic achievement?
- b. How does school climate, as measured by parent/caregiver perspectives on the *Studer Education* survey, correlate with academic achievement?
- c. How does school climate, as measured by employee perspectives on the *Studer Education* survey, correlate with academic achievement?
- d. How does school climate, as measured by student perspectives on the *KSA Quality of School Climate and Safety* survey, correlate with academic achievement?

### Literature Review

#### Culture and Climate

Research has shown the importance of a strong school culture and the impact climate has on establishing and maintaining school effectiveness (Altunay & Kaplan, 2024; Ismail, et al., 2021). Stakeholder involvement, with strong leadership that accepts and utilizes diversity (Evans, 2018;

Heiden & Saia, 2020), has led to organizational improvements to facilitate success in establishing effective schools where students thrive, attain or exceed standard proficiency, and strive for continuous improvement (Hadigah, 2024; Hegedus, 2018).

### **Stakeholder Connections**

According to the research study by Heiden and Saia (2020), a school's stakeholders included students, classified staff, certified teachers, school administrators, district administrators, and community members. This study determined that stakeholder engagement affected school culture through the provision of transparency and community support that improved the school's policy development.

Another research study by Hadigah (2024) reported that the school stakeholders comprised and shared unique competencies, which provided diverse benefits and contributed to a positive school culture. This study utilized stakeholders in research and practice, which enabled a community team approach to tackle common goals. The results of this study reported utilization of stakeholders in research and practice developed diversity, sustained stakeholder interest, and created a passageway to counter new challenges.

### **Student Perspectives**

Earlier researchers used an objectivist research design to observe, describe or measure student learning, yet this data failed to consider how students thought or felt about learning. An indicator to better understand how students learn best is to clearly understand their perspectives on learning. Becker, Geer, and Huges addressed this theoretical problem in 1968. This became the catalyst for more subjective research to emerge to investigate student

perspectives on concepts related to learning such as responsibility for learning, commitment to goals, and the effect of classroom goals on the motivation to learn. In the early 2000s, a study of elementary students was conducted to fill the research gap which existed. Finding revealed that elementary students are truly interred in learning; however, variables such as an unchallenging curriculum, teacher behavior, classroom structure, and inadequate instruction hindered the learning environment and their ability to learn (Gentilucci, 2004).

As research continued in this area, a more recent qualitative phenomenology study used a semi-structured interview to examine school culture's effects on students' academic achievement from a student perspective. The students expressed that the school's behaviors, background, successes, circle of friends, school uniforms, and social activities defined the school culture. The students expressed that culture positively and strongly affected student achievement regarding motivation to study, sense of competition, and social development. The students offered suggestions to improve the school culture by increasing extracurricular activities, planning social activities, organizing trips, and improving laboratory and library resources while continuing to enhance positive attitudes and behaviors in teacher-student relationships (Bayar & Karaduman, 2021).

### **Relationships**

Altunay and Kaplan (2024) incorporated the distinct aspect of relationships into a study examining school culture's influence on school dynamics. The study examined ways to enhance student and teacher relationships while empowering school culture-sustaining pedagogies. These pedagogies provided favorable

environments to optimize student development and influence students' aspirations. On the other hand, another study reported that students who had perceived negative vibes, such as low expectations for success, often succumbed to that outcome. The results showed students did not care about school and failed to achieve (Marrero, 2016).

### **Social Influences**

Felice et al. (2023) reviewed multiple studies regarding the impact of social interaction on the acquisition of new knowledge. Their work included three areas: learner, teacher and interaction among social agents in the learning process. Early research by Vygotsky (1962, 1978) pioneered the study of the social environment on learning and development. His sociocultural theory viewed learning as an intrinsic social process. This concept has been accepted by many researchers in the area of developmental psychology (Rohlfing et. al, 2020). The review of literature supported the concept that social interaction is necessary to maximize cognitive development (Meltzoff et. al, 2009; Kuhl, 2007; Goswami, 2006); therefore, learning relies heavily on the social environment. In conclusion, Felice et al. (2023) summarized that solitary learning may not be adequate and that a key factor influencing acquisition of new knowledge may involve interaction with others. London et al. (2014) stated that school climate was determined by behavior regarding safety, relationships, and academic expectations, and referred to the overall atmosphere, environment, and quality of life within a school. The concept encompassed the physical, emotional, and social aspects of the school experience, as well as the perceptions, attitudes, and relationships of students, staff, and parents.

This study examined a high-functioning recess program, reinforcing that a positive school climate was associated with favorable school outcomes, such as increased achievement and decreased problem behavior. The research team collected triangulated data from interviews, focus groups, observations, and a teacher survey to comprehend how behaviors changed during the implementation of the recess-based program, which allowed for more peer social interaction. The program offered opportunities for student engagement, conflict resolution, pro-social skill development, and emotional and physical safety. These social enhancements were determined to be an integral part of the school day and contributed to the school climate. The study reported that creating a positive recess climate helped students engage in meaningful social interactions and physical activity, enabling the student to return to class and focus on learning.

### **Academic Achievement**

Primary elementary grades focus on developing basic skills in reading, math, and social emotional learning (SEL) to prepare students to proficiently gain skills to learn and grow at the intermediate levels of elementary school in preparation for higher levels of more abstract skills needed in middle school, high school, and college. The Kentucky Department of Education (KDE) has determined the education standards to be mastered at each level and monitors schools for proficiency, providing an annual accountability overview of elementary schools. Literature has demonstrated the importance of using data-driven instructional strategies to set goals for staff and students that contribute to growth via heightened instructional time, expanded content delivery, and student empowerment,

which leads to improved school climate and academic improvement (Jimerson, et al., 2016; Nordengren, 2019).

### **Reading and Math Instructional Relationship**

Erbeli et al. (2021) examined the relationship between the cohesive developmental nature of reading and math learning. This study examined the dynamic journey of reaching benchmarks for both math and reading in Grades 1-4. The study reported that average and high levels of reading performance were associated with subsequent gains in math growth. In contrast, low levels of reading performance had negligible or no amplifying influences on change in math growth.

Hall et al. (2025) examined a reading intervention's impact on math fluency and problem-solving as well as the mechanisms of reading interventions' relationship to math fluency. Reading intervention had a small impact on math applied problem-solving. In addition, activating word-level reading skills through reading intervention impacted math fluency, which provided support for a causal mechanism of language in math fluency resulting from word-level reading ability. These results demonstrated that good reading skills influence children to develop math skills. The findings accentuate the importance of considering reading performance in treating math difficulties.

### **Behavior Intervention**

School climate has been shown to improve with positive behavior systems that discourage disruptive behavior with classroom management and discipline strategies such as defining clear expectations, consistent routines, using data to track progress, and reinforcing positive

behavior. Research has supported equitable behavioral practices with student behavior referral and regular review of social, emotional, and behavioral screening data, and behavioral referral data (Brann et al., 2023).

Additionally, studies have shown that teachers with a greater sense of efficacy avoided inappropriate practices such as shaming, physical punishment, disrespect, or emotional degrading of children. These teachers also focused more on allowing and learning from mistakes, building autonomy, setting achievable goals, and providing support to facilitate understanding, with self-regulation techniques to generate solutions, and guide children through evaluation and reflective actions (Atiles, 2017).

### **School Effectiveness**

Kentucky defined school effectiveness for elementary schools through multiple measures, including the state accountability system. The key criteria assessed by KDE included reading, math, science, social studies, and writing. Additional components include English Learner progress, and school climate and safety. Not only are high levels of achievement expected but also reductions in achievement gaps, continuous improvement, and growth from previous years (KDE, 2025).

Ismail et al. (2022) conducted a quantitative study using a survey design to examine the impact of school culture on school effectiveness. Data collected from scales related to school culture and effectiveness revealed a significant influence on school effectiveness. Based on the findings, school effectiveness was enhanced by collaborative leadership, teacher collaboration, professional development,

and unity of purpose, collegial support, and learning partnerships.

Cornerstone ideals witnessed in effective schools have included a strong school culture and climate, student engagement, stakeholder and community involvement, student achievement, and proficiency of education standard benchmarks (Altunay & Kaplan, 2023; Bayer & Karuduman, 2021; Courtney, 2022; Evans, 2019; Freeman et al., 2016; Gandhi et al., 2024; Ismail et al., 2021). Student and teacher engagement, principal leadership, building leadership capacity, and a continuous improvement mindset set the environment for success (Brown, 2016; Hadigah, 2024; Hegedus, 2018; Heiden & Saia, 2020; Lee & Bierman, 2016; Lynch, et al., 2017; Peddell, 2016; Ross, et al., 2016). The results of this study reflected the importance of creating a culture that empowers all school members to work toward common goals.

## Methodology

### Research Design

This quantitative research study used a correlation design to investigate the relationship between school climate and school effectiveness in a rural district's elementary schools. This design was used to explore the strength and direction of associations between the variables to determine if relationships were positive (increase or decrease together), negative (one increases as the other decreases), or nonexistent. This correlation used archival data on school climate, as represented by the district *Studer Education* surveys which were administered to employees, students, and parents/caregivers. Public data was obtained through the Kentucky Department of Education's (KDE's) School Report Card, which disclosed Kentucky Summative

Assessment (KSA) *Quality of School Climate and Safety* survey results to measure climate and KSA reading and math indicators and the overall achievement index to measure academic performance.

The study examined the relationship of school climate and academic achievement, which prior research has shown a positive correlation with school effectiveness and continuous improvement (Altunay & Kaplan, 2023; Gandhi et al., 2024; Ismail et al., 2021). The results can provide stakeholders data to create and maintain a cohesive vision and develop improvement plans. Communication of the progress of goals and growth are integral to gain and maintain support from stakeholders.

### Sampling

The research study's setting was a rural district's six elementary schools located in a western Kentucky county with a student population of 3,888 and 257 classroom teachers. The six elementary schools' total enrollment is 1,975, with 160 teachers and six school principals (<https://reportcard.kyschools.us>). Other demographics include 91.7% Caucasian, 4.2% Black, and 8.2% Hispanic, Latin American (KDE, 2025a).

The participants in this study were elementary school principals/designees in a rural school district. All six elementary schools in the district were included in the study. The primary investigator approached each elementary school principal in person to provide information about the study, asked the principal or designee to participate in the study, answered any questions, and provided them with a written consent form. The participants were asked to sign the consent and provide access to the school's database results.

### **Variables**

The variables measured included climate and academic achievement. The instruments used to measure the variables included the data obtained from *Studer* surveys and KSA scores. Data collection involved analysis of the school district's aggregate data sets including KSA reading and math indicators, KSA overall achievement index, KSA *Quality of School Climate and Safety* survey, and *Studer Education* surveys (student, parent/caregiver, and employees).

### **Procedures for Data Analysis**

This quantitative designed study used descriptive statistics (mean) and the inferential statistical analysis of Pearson's correlation coefficient to determine whether the climate of the schools, identified as A-F, correlated with academic achievement, with significance at  $p < 0.05$ . The research question examined how school climate correlated with academic achievement, from the perspective of various stakeholders using different instruments.

### **Studer Education Surveys**

The *Studer Education* surveys provided data on school climate, collecting the perceptions of experiences from the student, parent/caregiver, and employee perspectives on a 5-point Likert scale. Survey results provided the score from each stakeholder group and the overall mean survey score.

To measure school climate using the *Studer Education* surveys, results from Fall 2024-2025 were transcribed to a code sheet. The individual stakeholder results (student, parent/caregiver, employee) were indicated and the mean was calculated as an overall *Studer* mean (Table 1).

**Table 1***Studer Education Survey Scores*

School	Student	Parent/Caregiver	Employee	Mean
A	4.02	4.27	4.49	4.26
B	3.94	4.22	3.98	4.04
C	4.51	4.56	4.38	4.48
D	4.09	4.45	4.25	4.26
E	4.27	4.26	4.20	4.24
F	4.45	4.36	4.37	4.39

**KSA Data**

The KSA was developed to measure the attainment of desired benchmarked standards. The KSA provided school districts with an overall performance rating of individual reading, math, science, social studies, writing scores, and an overall index rating. The index rating includes the scores for reading and math, science, social studies, and combined writing scores, as well as the results of the *Quality of the School Climate and Safety* survey. Performance in each academic area was made available and was categorized by weight as follows to determine an overall school index: reading and math indicator score (51%), science, social studies, and combined writing indicator score (40%), *Quality of School Climate and Safety* (4%), and a possible English Language Learner Progress (5%).

Both the status and change data were provided to determine evidence of continuous improvement, or lack thereof. The scores were categorized as distinguished, proficient, apprentice, and novice, with ratings from highest to lowest performance, respectively. The status was also represented as a color, indicating performance levels as follows: red: very low (0-37.9), orange: low (38-54.9), yellow: medium (55-69.9), green: high (70-82.9), and blue: very high (83+).

The KSA data used for this study consisted of accountability scores for math and reading, overall achievement index, and school climate and safety for each school, A-F (Table 2). These categories were used to represent each school's academic effectiveness. The measure of school climate and safety was obtained from the KSA *Quality of School Climate and Safety* survey provided during the KSA accountability

window at the end of the 2024-2025 academic year, which served as an additional measure of school climate. School effectiveness was measured by the combined KSA reading and math indicator and the overall achievement index.

### **KSA Climate and Safety Survey**

The variable of climate was evaluated with the KSA's *Quality of School*

*Climate and Safety* survey score completed by students in the spring during the state assessment window. These surveys measured how successful the school was in promoting an environment to reach the students' highest potential, create a cohesive mission, and providing a strong, safe and healthy school culture.

**Table 2**

*KSA Academic and Climate Indicators*

School	Reading & Math Indicator	Overall Index	School Climate and Safety
A	92.6	90.7	93.0
B	88.5	92.9	98.3
C	104.4	100.9	99.7
D	79.5	73.8	82.0
E	82.5	88.6	91.2
F	82.9	78.3	94.6

### **Statistical Analysis for Research Questions**

Pearson's correlation was conducted to examine the relationship between school climate and school effectiveness indicators across the six schools (A–F). A series of correlational analyses was conducted, applying various measures for school climate as measured by stakeholder perceptions. Additionally, these measures were explored to determine the correlation to academic scores as reported on the Kentucky School Report as reading and

math indicators and overall achievement index. When analyzing data,  $p < .05$  was set to determine statistical significance.

### **RESULTS**

Using the Pearson correlation (Table 3), a series of correlational analyses examined the relationships among the academic indicators and stakeholder perception measures regarding school climate. Statistical significance was determined by a  $p < .05$ .

Survey analysis revealed strong alignment between student and

parent/caregiver stakeholder groups ( $r = .83$ ), and both demonstrated strong associations with the *Studer* mean ( $r = .90$  and  $r = .88$ ), respectively, suggesting that the mean was influenced heavily by student and parent perceptions with statistical significance.

Analysis of survey relationships further revealed substantial alignment across stakeholder groups. Student and parent *Studer* survey scores were strongly correlated ( $r = .83$ ). Both the student *Studer* scores ( $r = .90$ ) and parent/caregiver *Studer* scores ( $r = .88$ ) demonstrated strong associations with the *Studer* mean, suggesting that the mean was influenced heavily by student and parent perceptions. Employee *Studer* surveys revealed that perceptions were positively associated with the *Studer* mean ( $r = .75$ ); however, in contrast, the employee *Studer* scores demonstrated notably weak relationships with both the overall index ( $r = -.04$ ) and Kentucky Summative Assessment (KSA) *Quality of School Climate and Safety* scores ( $r = -.09$ ), indicating a negative correlation.

Furthermore, results showed that KSA reading and math indicators demonstrated strong positive associations with the KSA *Quality of School Climate and Safety* score ( $r = .72$ ); however, reading and math indicators only had a slightly moderate correlation to student perceived climate when using student *Studer* survey scores ( $r = .33$ ), both student perceptions of climate yet completed at different times during the year.

Similarly, the overall index was strongly related to KSA *Quality of School Climate and Safety* survey ( $r = .80$ ), suggesting that schools with stronger accountability performance also reported more positive school environments by students during the accountability window; however, when the overall index was

compared to the *Studer* student survey, the correlation was extremely low ( $r = .15$ ).

These results showed inconsistent findings that did not support the hypothesis that the school climate would have a strong correlation with academic achievement in reading, math, and other state accountability measures. The school climate, as defined by the KSA *Quality of School Climate and Safety* survey score, which was completed by the students at the end of the year during the testing window, showed strong correlations to reading and math indicators, along with the overall academic index. Contrasting students' perceptions of climate, as obtained by the Student *Studer Education* survey at the beginning of the year, yielded weak-to-moderate correlations. Parent and caregiver perspectives had moderate to high correlations with the academic indicators. Surprisingly, the employee perception of climate had a negative correlation to the overall academic index. These findings suggested that the strongest correlations between climate and academic achievement occurred among students at the end of the school year, when state accountability assessments were completed along with the KSA *Quality of Climate and Safety* Survey.

**Table 3**

*Pearson Correlation Matrix for KSA Reading/Math Indicators, KSA Overall Achievement Index, KSA Quality of Climate and Safety Survey, and Studer Education Surveys*

Variables	1	2	3	4	5	6	7
1. KSA Reading and Math Indicator	—	.87	.72	.33	.76	.31	.49
2. KSA Overall Achievement Index		—	.80	.15	.48	-.04	.18
3. KSA <i>Quality of Climate and Safety</i> Score			—	.32	.50	-.09	.25
4. Student <i>Studer</i> Survey				—	.83	.42	.90
5. Parent/Caregiver <i>Studer</i> Survey					—	.47	.88
6. Employee <i>Studer</i> Survey						—	.75
7. Mean <i>Studer</i> Survey							—

*Note.* Strengths of relationships: >.6 considered strong; .3 to .59 considered moderate, and .1 to .29 considered weak.

### Statistical Significance as Correlated to Academic Achievement

After reviewing all correlations, using the Pearson  $r$ , statistical significance was indicated on Table 4. Although not quite meeting the significance level, the overall academic index as correlated to the KSA *Quality of Climate and Survey* score neared the significance level ( $r = .80, p = .056$ ), indicating a strong relationship. A statistically significant, very strong positive correlation was found between KSA reading and math indicator scores and overall index scores ( $r = .87, p = .024$ ), indicating that schools with higher KSA reading and math scores also tended to receive higher overall accountability index ratings. No other correlations involving KSA scores reached

statistical significance, although the relationship between KSA reading and math and parent *Studer* survey approached significance ( $r = .76, p = .079$ ), along with the overall index and KSA *Quality of Climate and Safety* score ( $r = .80, p = .056$ ).

Among perception-based variables, several strong and statistically significant correlations emerged. Student *Studer* survey scores were strongly and positively correlated with parent *Studer* survey ( $r = .83, p = .041$ ). Student *Studer Education* scores also showed a very strong positive association with the overall *Studer* mean ( $r = .90, p = .015$ ). Likewise, parent *Studer Education* scores were strongly correlated with *Studer Education* student scores ( $r = .88, p = .021$ ). These findings indicated that student, parent, and mean stakeholder

perceptions were highly aligned across schools.

**Table 4**

*Pearson Correlations and p-Values for KSA Reading/Math Indicator, Overall Achievement Index, KSA Quality of Climate and Safety Score, and Studer Education Surveys*

Variable Pair	<i>r</i>	<i>p</i>
Reading/Math Indicator – Overall Achievement Index	.87	.024
Reading/Math Indicator – KSA <i>Quality of Climate and Safety Score</i>	.72	.107
Reading/Math Indicator – Student <i>Studer Survey</i>	.33	.523
Reading/Math Indicator – Parent/Caregiver <i>Studer Survey</i>	.76	.079
Reading/Math Indicator – Employee <i>Studer Survey</i>	.31	.550
Reading/Math Indicator – Mean <i>Studer Survey</i>	.49	.324
Overall Index – KSA <i>Quality of Climate and Safety Score</i>	.80	.056
Overall Achievement Index – Student <i>Studer Survey</i>	.15	.777
Overall Achievement Index – Parent <i>Studer Survey</i>	.48	.335
Overall Achievement Index – Employee <i>Studer Survey</i>	-.04	.940
Overall Achievement Index – Mean <i>Studer Survey</i>	.18	.733
KSA <i>Quality of Climate and Safety Score</i> – Student <i>Studer Survey</i>	.32	.536
KSA <i>Quality of Climate and Safety Score</i> – Parent <i>Studer Survey</i>	.51	.301
KSA <i>Quality of Climate and Safety Score</i> – Employee <i>Studer Survey</i>	-.09	.865
KSA <i>Quality of Climate and Safety Score</i> – Mean <i>Studer Survey</i>	.25	.633
Student <i>Studer Survey</i> – Parent <i>Studer Survey</i>	.83	.041
Student <i>Studer Survey</i> – Employee <i>Studer Survey</i>	.42	.407
Student <i>Studer Survey</i> – Mean <i>Studer Survey</i>	.90	.015
Parent <i>Studer Survey</i> – Employee <i>Studer Survey</i>	.47	.347
Parent <i>Studer Survey</i> – Mean <i>Studer Survey</i>	.88	.021
Employee <i>Studer Survey</i> – Mean <i>Studer Survey</i>	.75	.086

Note. Significant results ( $p < .05$ ).

### Conclusions

Correlations for this study of six rural elementary schools were calculated by using the 2024-2025 data for the Kentucky Summative Assessment (KSA) combined reading and math indicators, overall achievement index, *Quality of School Climate and Safety* survey scores, and *Studer Education* survey scores for students, parent/caregiver, employees, and the overall *Studer* mean. This analysis indicated strong, positive relationships between reading and math academic performance, overall index scores, and KSA's *Quality of School Climate and Safety*, as well as high alignment among stakeholder perception measures. The student, parent/caregiver, and employee survey ratings were consistently interrelated, except that employee perceptions showed a negative correlation to index and climate scores and only a small correlation to reading and math indicators, with no statistical significance. This indicates a need to explore staff experience more deeply to find areas that may require growth.

### Insights and Interpretation

The robust correlation between KSA reading and math indicators and the overall achievement index implies uniformity between these two statewide accountability measures. The relationship between KSA and parent feedback indicates that schools attaining stronger academic results tend to reflect greater parental perceptions. The relationship between the overall index and climate, as indicated by the KSA *Quality of School Climate and Safety* score that neared statistical significance, suggests that more effective school performance is associated with more positive student perceptions of the school environment when assessed by

students at the end of the school year during the assessment window.

The strongest band of relationships emerged from the student, parent, employee, and *Studer Education* mean variables, which suggests alignment among the stakeholder perceptions, inferring schools viewed positively by one group are likely viewed positively by others. The employee perceptions were not strongly correlated with academic or climate measurements. This difference may underline disparities in staff experience or internal operational issues that do not immediately surface in academic indicators.

### Academic Achievement and Climate

The KSA *Quality of School Climate and Safety* survey also provided data related to climate, which was included in the schools' index scores. This survey was completed by students in Grades 3-6 at each elementary school. The KSA score for *Quality of School Climate and Safety* ranged from 82 to 99.7, with a district-wide elementary school mean score of 91.5 (Table 2). These results indicate that the student-reported school's climate and safety environment was conducive to learning and growth.

In contrast, negative correlations from the *Studer* employee survey, although not statistically significant, were derived from employees with vastly different roles and responsibilities. The data may not reflect a correlation with academics due to the dilution factor of the mixed survey group. The employees who completed the surveys included certified teachers, non-certified instructional staff, and classified employees. The perceptions of these combined employee groups may be shaped by factors that differ from those influencing academic outcomes.

## **Conclusion**

This study explored the relationship of school climate to school effectiveness. School effectiveness was measured by the KSA academic indicators. The descriptive measures of calculated means and inferential statistics of Pearson's correlation provided support for the school district's effectiveness at the elementary school level. These findings provide a data-informed foundation for planning and monitoring school improvement efforts across the schools included in this study.

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