THE ASPEN INSTITUTE
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SCHOOL CLIMATE LITERATURE SUMMARY

The national conversation about school climate raises questions of policy, accountability, inclusivity, equity, resource allocation, data analytics, professional development and nearly any other conceivable thread related to managing schools and school systems. Every educational stakeholder is implicated in this dialogue, perhaps none more so than the school principal.

School leaders shoulder the essential responsibility to lead their communities toward a vision for quality learning, and for responding to this emerging data set. Yet little attention has been given to the leadership moves and resources that principals have at their disposure to integrate yet another pathway into a holistic vision for student academic and social-emotional development.

This literature review serves as a shared fund of knowledge on climate terms, uses, and opportunities. It is intended as source material for our working group, comprised of school leaders, district leaders, and leaders in the field. Our aim is to add this to our shared knowledge and experience in order to create actionable resources that empower principals to integrate school climate data into their continuous improvement efforts.

What is School Climate?
Defining School Climate

Recent studies highlight the impact a positive school climate has on student academic performance, and the critical role school leaders play in fostering achievement through positive school climates. **School climate refers to** the qualities of the school environment that are experienced by teachers, administrators, students, and other members of the school community.[1] It is the impressions of these individuals as they experience school policies, practices, and procedures.[2] **The National School Climate Council (NSCC) defines school climate as** patterns of school life experiences that reflect norms, goals, values, interpersonal relationships, teaching, learning and leadership practices, and organizational structures.[3] **While there is no consensus or a single definition of school climate,** researchers agree that school climate includes the social, emotional and physical features of the school that provide the conditions for learning. In other words, the school is more than a place for academic learning; it is also where children learn how to form positive social relationships, gain independence, and develop emotionally, behaviorally, and cognitively, and these conditions affect their learning.[4]

Why is School Climate Important?
The Impact of School Climate

Effective approaches to improving school climate can create conditions for social emotional and academic development (SEAD). Conditions for learning and SEAD are inextricably linked.[5] As such, SEAD cannot flourish in a school independent of positive and supportive school and classroom climates, just as systematic efforts to build student and adult social and emotional competencies contribute to nurturing classroom and school climates. **Conditions for learning include** physical and emotional safety, connectedness and support, engaging and challenging opportunities to learn, and interactions with and modeling from socially and emotionally competent adults and peers. **These conditions for learning are associated with higher student achievement, improved attendance and graduation rates, and lower rates of suspension**, as substantiated by several recent studies summarized below.[6]

- A 2016 study examining the relationship between school climate and student achievement ratings in 230 urban school districts across five states finds a strong correlation noting "the quality of the climate appears to be the single most predictive factor in any school's capacity to promote student achievement."[7] The study's finding confirmed a well-established connection between school climate and student achievement.[8]

- A 2017 longitudinal analysis of middle school students found that schools with a more positive school climate (as reported by students) tended to have higher academic performance. Furthermore, two recent reviews of research, incorporating more than 400 studies, found that a positive school climate improves academic achievement overall, boosts grades, test scores, and student engagement, and reduces the negative effects of poverty on achievement.

- Schools with positive climates have less student discipline problems, fewer high school suspensions, fewer student absences, higher student academic motivation and engagement and overall psychological well-being.[9]

- Being responsive to culture and embracing culturally responsive teaching methods builds students' brain power and creates stronger learning opportunities.[10]

- In 2018, the University of Chicago Consortium on School Research found that principals primarily influenced student academic performance by improving school climate.[11]

As Duckworth and Yeager (2015) remark, there is a scientific consensus in the behavioral sciences that success in school and beyond depends critically on many attributes other than cognitive ability.[12]

What Does Positive School Climate Look Like?
Core Elements of Positive School Climate

Given that there is no single definition of school climate, there is also no universally agreed upon set of core domains or elements of school climate. However, there is a degree of consistency across school climate definitions, frameworks and models. For example, the National School Climate Council identified five elements of school climate, which include *safety, teaching and learning, interpersonal relationships, institutional environment, and staff relationships.*[13] Additionally, in a meta-analysis of school climate research, the essential elements were grouped into four domains: *academic, community, safety, and institutional environment.*[14] While school climate elements or domains are defined somewhat differently across various frameworks, fundamentally they capture similar key features.

Further research has been underway to better understand which school climate domains have the greatest impact on academic achievement, student behavior, and social emotional well being. Wang and Degol (2016) found that **academic and community domains tend to help promote academic achievement.** For example, schools that set high academic standards, stress

commitment to students, exhibit effective leadership, and emphasize mastery goal orientations have students who demonstrate higher academic achievement. These schools also exhibited community domain features such as warm teacher-student relationships, frequent communication between parents and schools, and an appreciation for diversity. **The researchers also found that a focus on community and safety positively impacted student behavioral outcomes and social emotional well-being.** Other somewhat overlapping domains identified as critical for a positive school climate include social and emotional learning and development, emotional and physical safety, intra and inter-personal connectedness and support, academic challenge and engagement, and peer and adult social and emotional competencies.[15] Studies have found that schools with positive climates tend to have lower suspensions and overall lower behavioral concerns in classrooms. Thus, a positive school climate contains "systemic structures such as clear and fair school policies and procedures; and students and teachers feel included and supported by peers, colleagues and leadership.[16]

How is School Climate Measured?

Given the evidence that a positive school climate supports student's social and emotional learning and promotes academic success, there has been increased demand to measure and assess school climate. Climate data allows schools to identify structural problems, develop interventions, evaluate their effectiveness, and provide actionable improvement targets for school staff.[17] Further, assessing school climate communicates that it is a priority and encourages educators to create more welcoming environments for families.[18]

School climate is most commonly assessed using (1) surveys of parents, teachers, and students (2) structured observations of classrooms and schools and (3) school administrative data such as attendance, discipline referrals, expulsions, suspension and graduation rates. **As schools make decisions about measurement, researchers encourage schools to proceed with caution by considering the benefits, challenges, and limitations of measurement approaches and tools.**

School Climate Surveys

School climate is most commonly measured through surveys of parents, teachers, and students.[19] **Climate surveys typically measure a school's safety, relationships among students, staff, and families, the teaching and learning environment, and institutional factors, such as facility quality or resource availability.[20]** Using surveys is useful in capturing feedback from multiple stakeholders (i.e., teachers, students and parents) on a wide range of climate dimensions in a fairly inexpensive manner. Teacher surveys can be useful in informing supports and practices to improve teacher retention, and student surveys can provide deeper insights into how various students are perceiving and experiencing the school climate.

Although surveys are an efficient and cost-effective way to measure school climate, there are several limitations

and considerations to keep in mind (see Table 1). Before using any survey tool, it is important to assess its reliability and validity.[i] These considerations, when weighed appropriately, add assurance that instruments will be utilized for their intended purposes, and inform appropriate responses. **There is little empirical evidence to support the use of climate surveys for accountability,** and most instruments have not been validated for use in these contexts. Under ESSA, 37 states declined to utilize school climate and student engagement through surveys in their accountability plans. Of the 13 states that do, eight are using the data in formal accountability systems despite the concern among researchers that the tool were not intended for that purpose.[21] Further, **school climate surveys cannot always identify the specific learning environment being surveyed** (such as classrooms, hallways, etc.),

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i *Reliability refers to the consistency of a measure (over time, across items, and across different researchers. Validity is the extent to which the scores from a measure represent the variable they are intended to.*

Table 1. Summary of Climate Measures, Strengths and Limitations

	Strengths	Limitations	Administration + Analysis Challenges
Survey of Teachers	• Efficient and cost-effective • Can be used for school improvement needs assessment and public data reporting • How teachers perceive a school's climate matters tremendously for teacher retention	• Reliable and valid surveys are available; however, not all surveys are • Survey might not be the most valid tool for comparing climate across schools • Surveys are not to be used to plan individual student-level interventions • Teacher attitudes and expectations of students can bias survey results • Timing of survey administration is important to ensure survey results are reliable	• Finding time to administer survey • Finding the capacity to administer survey • Finding time and capacity to analyze climate data and then act on it • Prioritizing communication of survey results with teachers • Negative school climate results can lead to unproductive "shaming and blaming" among and between school stakeholders • When schools do not act on school climate data, stakeholders can become increasingly disillusioned and disengaged with the process of improvement
Survey of Students	• Efficient and cost-effective • Acquire a unique and deeper view into how experiences and perceptions vary across students • Better suited than any other measure for assessing internal psychological states like feelings of belonging • Help schools understand how various students experience the school and help school leaders identify specific policies, strategies, and resources to improve aspects of the school climate and, ultimately, student outcomes	• Reliable and valid surveys are available; however, not all surveys are • Social desirability bias where students report what they think they should be doing rather than what they are actually doing • Reference bias where student responses reflect the characteristics of their friends or the norms of their school • Students responding in line with stereotypes based on gender, race or class • Survey results can be influenced by many factors, including respondent's culture and biases • Student literacy, understanding and interpretation of survey items	• Prioritizing communication of survey results with students • [Challenges cited under Survey of Teachers apply here]
Survey of Parents	• Efficient and cost-effective	• Reliable and valid surveys are available; however, not all surveys are • Parent survey response rates tend to be the lowest of all stakeholders • Survey respondents tend be parents most engaged and involved in the school; thus, results may not be accurate	• Prioritizing communication of survey results with parents • [Challenges cited under Survey of Teachers apply here]
Classroom Observation	• Effective in capturing the interactions between adults and students • Helpful in informing professional growth on developing positive learning environments • Routine informative observations help promote the practice of continuous improvement	• Cannot capture within-classroom variability in student experiences • Observational data cannot be disaggregated by student group • Ensure use of validated observation tool • Ensure sufficient training of observers on reliable observations • Ensure sufficient observations and length of observation	• Finding time and funding to train staff on observation tool • Finding time for reflection and action planning based on observations • Results of the observations are actionable in that they point to aspects of the learning environment and interactions that could be improved
Administrive Data	• Routinely collected by schools and districts • Can be used as a leading indicator to monitor in real- time whether an intervention or action is having an impact	• Insufficient on its own to measure climate or help educators fully understand school climate	• Without data systems and clear definitions, accurate collection of administrative data can be a challenge for schools, districts and even states.

which makes planning specific interventions a challenge. **Survey results can also be influenced by many factors, including culture and biases** stemming from respondents' attitudes and expectations. Research has found that students in one context might respond differently to items about climate than would students in another context. **Low participation rates can also pose a challenge,** particularly among parents and community members. School leaders are in a unique position to explore and prioritize school climate measures given established practices and programming.

Classroom Observations

Structured classroom observations are another method used to assess school climate. Observers (e.g. school leaders, instructional coaches, administrators, or external evaluators) are trained to use a protocol or rubric and record their observations within classrooms. Data from classroom observations can be used to assess the quality of interactions between adults and students and interactions among students themselves, highlighting aspects of the learning environment that could be improved. **Classroom observations can also be used to assess the extent to which teachers are using instructional practices that foster positive social and emotional development, which is associated with classroom climate.[22]**

There are several limitations when using classroom observations to measure school climate. Observation ratings can be influenced by who is observing (i.e., principal or external evaluator). Observations typically focus on teacher behavior even though school climate is best seen through student experiences.[23] Thus, observation protocols often do not effectively capture within-classroom variability in student experiences. They are also less feasible than surveys since they require not only significant training and monitoring, but also multiple observers to collect data from multiple classrooms. Finally, data from classroom observations are difficult to disaggregate by subgroup.

School Administrative Data

Administrative data that are routinely collected by schools can serve as proxy measures for school and classroom climate.[24] Attendance rates, discipline referrals, suspensions, and expulsions are all useful measures that can provide information related to school climate. Research points to a relationship between chronic absence, social and emotional learning, and school climate.[25] Data on suspensions and expulsions can be used to describe the extent to which some student groups are disproportionately subjected to exclusionary discipline policies, a key factor in how students perceive school climate.[26] **Because school administrative data are proxy measures, it is critical to combine these data with other direct measures of school climate (such as surveys, observations, and community feedback) to explore underlying factors and more fully understand the nature of climate within a school.** Here, too, is a place where school leadership can capitalize on proximity to students to better understand the drivers behind student choices and students' stated experiences.

Additional Considerations for Measuring School Climate

Measuring school climate offers many benefits to schools, including providing actionable data that can inform decision-making. Nonetheless, several considerations should be kept in mind when making decisions about how to measure school climate. Any measurement tool selected should reflect the multi-dimensional aspects of the school's culture and climate, including the emotional, physical, and behavioral aspects. Measurement tools should also be supported by empirical evidence of their reliability and validity. Given that many survey instruments have not been validated for use in high-stakes settings (such as school accountability systems or teacher evaluation systems), schools should take caution when using the tools for these purposes by ensuring participation is adequate and engaging respondents in thoughtful and meaningful ways. Multiple perspectives in varied settings (focus groups, town halls, advisory bodies) from students, families, teachers, administrators, and educational support professionals should be incorporated in school climate assessment.

Effectively and Strategically Using School Climate Data

Use Multiple Measures

Research suggests that creating positive school climates can help build social and emotional competence.[27] Thus, **combining data on school climate and social and emotional skills or competencies can provide a more comprehensive view of the ways that schools and classrooms support the development of these competencies.**[28] Climate data from surveys should also be combined with other school data, such as classroom observations and student achievement data, to capture what individual competencies and climate dimensions, as well as what combination, contribute most to healthy development.[29] For example, in California's CORE Districts, school leadership identified race-based gaps in school climate by linking survey data to student achievement data, examining the extent to which students felt supported and engaged by their teachers, and identifying schools African American and Latino students were either thriving or struggling.[30]

Use Climate Survey Data Formatively

When used appropriately, data from climate surveys can be used to diagnose instructional quality and the conditions of the school and inform improvement efforts. Data from climate assessments can provide teachers and schools leaders with **formative feedback that can be used for actionable improvement.** For example, student survey data often measure student perceptions of classrooms as safe, caring, and supportive. In classrooms where students report feeling less supported, teachers and school leaders can collaborate on developing and implementing strategies to improve student-teacher relationships.[31] Survey data from teachers can identify areas that are functioning well and areas in need of improvement, which can assist school leaders in developing professional growth plans.

Disaggregate Data

School climate measures are typically created by aggregating responses to create school- or classroom-level indicators. However, **aggregate measures of climate conceal important subgroup differences.** Disaggregating school climate data by subgroup is important because student experiences of climate often vary, even within a single school. These climate gaps suggest that students are provided with different learning experiences. Some research suggests that schools with larger race-based climate gaps also have larger race-based achievement gaps.[32] Thus, analysis of disaggregated data is critical and can uncover adult behavior and practices that are overlooked and may lead to interventions to better support students who are disproportionately impacted by the current school climate.[33]

Bring in Student and Community Voice

Findings from climate assessments should be communicated with the broader school community. A richer vision of student success is one in which students are not only at the center of the conversation, but are agents of change in their own education. School leaders of equitable communities can include students and families in interpreting data findings. **Student and family perspectives can help identify school-wide responses and interventions that are most likely to be successful.**

School Leadership for School Climate

School leaders' practices and policies are critical in establishing cultural competence, consistent and shared norms and expectations, and feelings of belonging.[34] Schools with the highest learning gains had principals who promoted a strong school climate by empowering and coordinating the work of teachers and school staff around shared goals. They also begin by building the social and emotional competencies of their teaching and support staff. Research suggests that when school leaders prioritize and model these competencies, teachers are more likely to develop them.[35]

When school leaders value the use of data, they are better situated to address school climate. For example, schools in Washington, D.C. use a framework titled *Safe Schools Certification* to gather data, involve teachers, and create a diverse leadership team. In Fresno Unified School District, one elementary principal reported reviewing climate survey results with staff at the start of each school year to explore trends and gather teachers' feedback. Also in Fresno, school leaders at Hoover High School use climate data findings to initiate conversations with concerned stakeholders. Parents reported feeling disconnected from the school and students reported unclear and inconsistent teacher approaches to discipline issues. As a result, the principal created a parent center and introduced a new application that notifies parents when students are removed from class for discipline referrals. Staff also engaged in a faculty-wide training to ensure consistent use of Hoover's three-level discipline model. The principal further called for increased analysis of when and where discipline problems were occurring to understand interactions and class transitions.

Evidence-Based Practices and Approaches

Research suggests that several strategies can effectively improve school climate. **Strategies include** using clear and consistent, schoolwide rules and consequences; minimizing the use of exclusionary disciplinary policies; increasing the use of restorative practices; providing opportunities for students and staff to take on leadership roles within the school; fostering positive relationships with students, including ensuring that all students have at least one adult with whom they connect; and developing opportunities for students to feel successful.[36]

Some approaches show promise, but have not yet been rigorously evaluated. For example, disciplinary approaches and restorative practices show promise for reducing re-traumatization and contribute to emotional and physical safety and equity.[37] Trauma-informed intervention and approaches can include creating a warm and caring school, teacher training on the impacts of trauma, alternatives to suspension, and classroom presentations on coping with trauma and violence. Some schools use universal systems of support; in these schools, all students have access to additional supports unless parents choose to opt-out their students.[38] The universal components of School-Wide Positive Behavioral Interventions and Supports (SWPBIS)—a prevention framework for both improving school climate and providing additional tiers of behavior supports to appropriate students—has also shown positive impacts on students' social and emotional learning and behavior, in addition to improving perceptions of safety, academic performance and reducing bullying and disciplinary referrals.

To put these strategies into practice, school leaders and staff must align on the belief that improving school climate is a critical lever to improving adults' and students' social and emotional well-being, and teaching and learning. School teams must also work collectively holding each other accountable for the success of all students, not only those in their classrooms.[39] These teams should provide a space for student voice, particularly in creating norms for respectful behavior, developing an inclusive community, for example equipping students and teachers with training on conflict resolution and peer mediation.

Helping Principals Respond to Climate Data

School leaders are uniquely positioned to improve school climate by ensuring alignment of policy and practices (including classroom instruction, professional development, and school discipline policies) with school climate goals grounded in climate data, research and evidence of effective practice.

The National School Climate Council and the Department of Education **identified a set of common key strategies in working towards school climate improvement.** These include:

(1) democratic, collaborative, and inclusive decision making that involves all stakeholders;

(2) quantitatively sound, regularly collected school climate data that: identify areas of strength and areas for improvement; guide action planning, intervention practices, and program implementation; and provide data for continuous monitoring and evaluation;

(3) tailored, integrated, and well-planned goals, practices, and programs.[40]

To this end, the NSCC identified three additional, **essential practices towards school climate improvement:**

(1) capacity building and/or professional learning communities that promote collective efficacy and staff skills;

(2) research- and theory-based supports, instruction, and intervention that include strength- and risk-based practices and programs that promote positive learning environments and eliminate individual student barriers to learning; and

(3) strengthening of policies, procedures, and operational infrastructures for effective data collection, planning, implementation, evaluation, and sustainability.

Research also recommends creating a school-based climate team (comprised of students, teachers, administrators, other staff, and parents) that meets regularly to identify and address school climate issues.[41] Moreover, school staff, across grades and subjects, should continually examine administrative and academic data. Leaders should explore school climate measures, strategies and methods to bring in school community voices, using school climate data with an equity lens, and implementation of evidence-based strategies and approaches to improve school climate.

While the field has generated extensive resources for collecting data, and some promising climate initiatives, the school leader is sometimes solitary in responsibility for an analytical bridge between complex data and the school's strategic priorities. Climate data can be used to identify gaps and illuminate bright-spots and opportunities for improvement, but the causes of less desirable climate are not always easily deciphered, nor solutions apparent. There is an opportunity for the field: marshalling expertise in districts and knowledge in partner organizations to carve out better guidance for principals to act on what they learn about their schools from climate data.

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