Overview of School Environment

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Prepared by:

Virginia Covill, Ph.D.
Vice President of Research, Evaluation & Impact

Erin Godly-Reynolds, M.Ed.
Community Psychology Doctoral Student, University of North Carolina Charlotte

The Importance of School Environment

Educators know what *should* improve educational outcomes based on decades of educational research that has produced a plethora of evidence-based curriculum, instructional strategies, and behavioral management techniques. This research, however, has not translated into performance outcomes; in reality, reading and mathematics achievement scores have remained relatively static for decades [1].

Grade 8 NAEP Score Trends 2003-2015
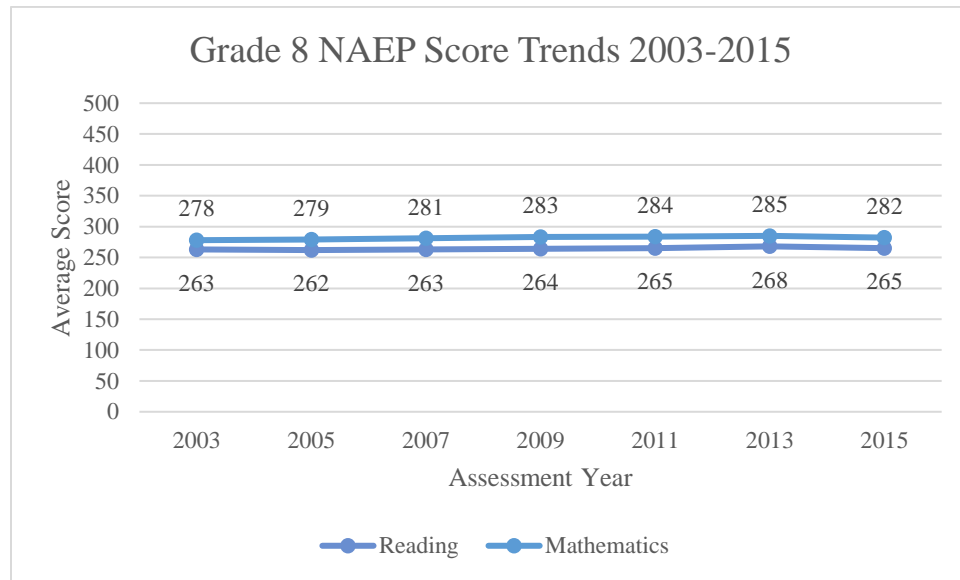
We know that all students do better (e.g., higher academic achievement, social-emotional competencies, graduation rates, etc.) under certain conditions, or supportive learning contexts. A student's ability to succeed in school is a product of the student's interactions with her or his school environment [2,3]. Student outcomes are influenced by the system of expectations, traditions, beliefs, policies, and norms in their school and their community [4]. While research has investigated school culture and school climate, findings are limited due to:

- The two constructs of "climate" and "culture" appear to overlap in multiple ways [3,5–9]
- Both constructs contain flaws in how they are defined and measured [8,10,11]

Goal: Develop a locally-validated measure of school environment, in partnership with Charlotte-Mecklenburg schools, to meet the following objectives:

(1) Enhance community understanding of the environmental factors that will improve student achievement
(2) Strengthen whole-school supports by providing a way to document their impact (i.e., school environment improvement)
(3) Utilize data to identify where additional supports (e.g., resources, new partnerships) may be needed for schools

Charlotte-Mecklenburg School Environment Research Study

Charlotte-Mecklenburg Schools (CMS) examined differences in the socioeconomic and racial demographics across all schools in the district. CMS found significant differences in students' performance on nearly every measure analyzed based on school poverty level and race [12]. Notably, achievement gaps between Hispanic, black and white students cannot be explained by other factors, including school poverty level [12]. Therefore, the present school environment study offers the opportunity to explore how to promote equitable outcomes for students while also improving student achievement overall.

Comprehensive School Environment Measure: Overview of Research Study Process & Benefits

The present study will identify key elements that promote student success by incorporating multiple perspectives throughout the proces of developing a comprehensive measure, or survey of school environment. In addition, the measure will be designed so that multiple groups of people (i.e., stakeholders) can participate twice yearly to provide a more complete picture of school environments in CMS. The following activities outline this process.

In progress:
  (1) Develop a measure of school environment by reviewing relevant literature, choosing key dimensions, and defining those concepts or modifying existing definitions.
  (2) Conduct interviews with CMS district leaders and principals, and conduct focus groups with teachers and CIS site coordinators (i.e., non-instructional school staff). Gain a deeper understanding of each domain and dimension as well as what those essential elements of the school environment look like in CMS.
  (3) Using knowledge acquired during interviews and focus groups, modify definitions and create items that are developmentally appropriate and interpreted as intended.

Spring 2019:
  (4) Revise items using written feedback from participants (e.g., district leaders, teachers).
  (5) Renew CMS research application, and request permission to conduct parent focus groups.

Fall 2019:
  (6) Assess the components that participants believe are essential to students' success in CMS environments: Pilot the measure with CMS teachers in grades 3-8.
  (7) Support school leaders' efforts to utilize this knowledge to effect school improvements.

Spring 2020:
  (8) Administer the measure for a second time with CMS teachers in grades 3-8.
  (9) Compare results within and across schools, and continue to support school leaders' efforts to utilize this knowledge to effect school improvements.
  (10) Conduct factor analysis and validation of the measure.

Long-term (2020-2024):
  (11) Administer the measure to teachers yearly (revising as needed to improve).
  (12) Create and administer complimentary, unique versions of the measure for students, parents, administrators, and non-instructional staff at two levels: grades 3-8 and high school.

School Culture & School Climate

Previous research has investigated school context in terms of school culture and school climate. This section will illustrate the definitions and applications of school culture and school climate, identify the shortcomings of these overlapping constructs, and indicate how the use of a "school environment" concept addresses these challenges.
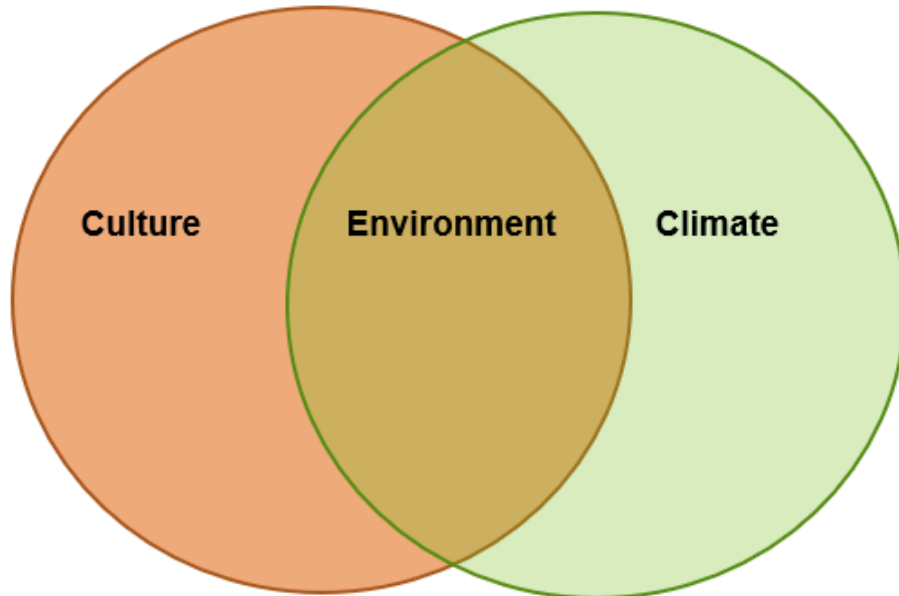
School Culture Definition

School culture has been defined as the common values, norms, expectations, and beliefs of a school community [11]; in other words, what a school *collectively does*. School culture has also been defined as a "system of shared orientations that hold the unit together and give it a distinctive identity" [8]. School cultures described as "positive" based on inconsistent criteria have been associated with improved student behavior and achievement, attendance, and teacher satisfaction [4,13–15]. The U.S. Department of Education has pointed to the influence of school culture on student learning, citing the importance of the symbolic roles of leaders in shaping cultural patterns and practices [2].

School Climate Definition

How the experience of being in a school *feels* has been studied using the term school climate, which is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures [3]. School climate has been described as representing "virtually every aspect of the school experience" [5], including school community relationships, school organization, and both institutional and structural features of the school environment. Since there is no universal definition of school climate, researchers have typically characterized and described the construct differently, with definitions ranging from abstract and theoretical to concrete and narrow [5]. Nonetheless, a large number of research studies support a direct connection between a school's climate and students' attendance, achievement, and behavioral outcomes [5].

School Environment Survey Dimensions

Developing a positive school environment can ultimately improve student outcomes by promoting the accumulation of developmental assets, which lead to resilience in the face of adversity. In school settings, student behaviors reflect the extent to which the school environment inspires greater attachment to peers and role models, commitment to the school, involvement in school-related activities, and belief in the school's value system.

School environment: a category of concepts that reflect key attributes of the surroundings or conditions in which people operate in school.

SCHOOL ENVIRONMENT

ACADEMICS

PHYSICAL ENV'T

SHARED VISION

COMMUNITY

SAFETY
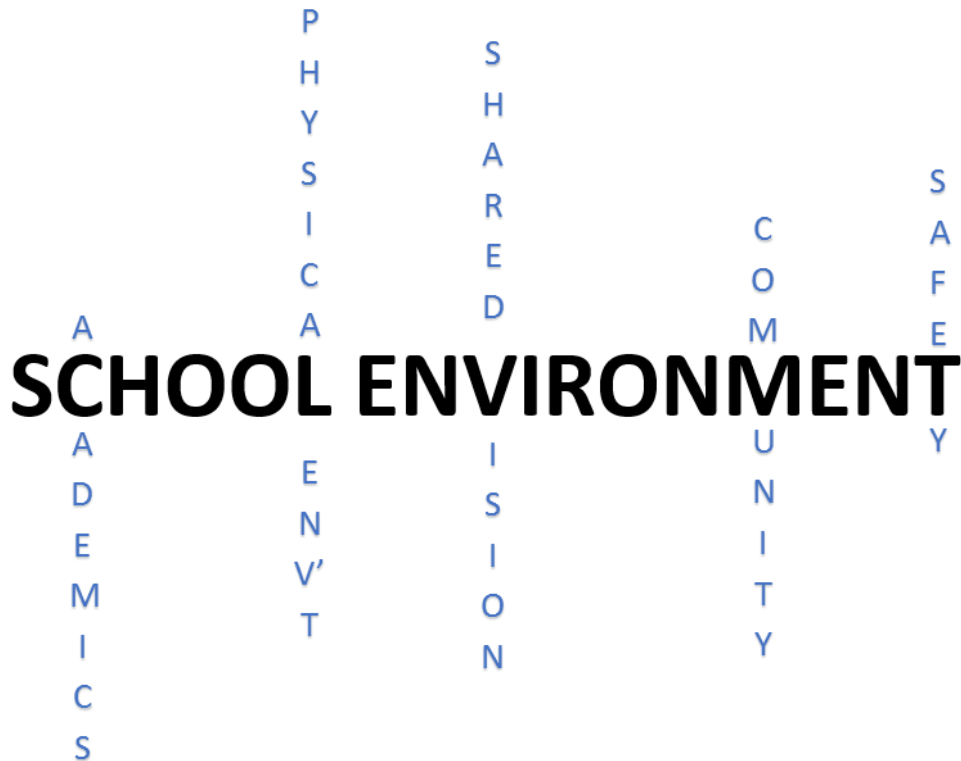
Based on existing literature from school culture and school climate research, the following dimensions have been identified and organized into five domains that are summarized in the table below [2,3,5]. Importantly, concepts frequently included in culture and climate research, albeit with differing or no definitions provided, have been included, as well as some concepts that have been consistently excluded from one or the other. In addition, a definition accompanies each subdimension in order to begin the process of meticulously and collaboratively clarifying each concept. Defining what school environment means is essential to designing survey items that fully and accurately capture the essential elements that our stakeholders identify and describe.

Domain	Dimensions
Shared Vision	• <u>Mission:</u> A mission focused on student and teacher learning • <u>History of the school:</u> A rich sense of history and purpose • <u>Values and beliefs of the organization:</u> Core values of collegiality, performance, and improvement that engender quality, achievement, and learning for everyone; positive beliefs and assumptions about the potential of students and staff to learn and grow; collegial support based on trust • <u>Rituals and ceremonies:</u> Regularly reinforce positive, core cultural values • <u>Myths and stories that explain the school:</u> Stories that celebrate successes and recognize adult heroines and heroes who define what is possible and provide a standard to achieve
Safety	• <u>Social/emotional safety:</u> Presence of caring and supportive staff; availability of counseling services; an absence of verbal bullying or harassment • <u>Physical safety:</u> Frequency and severity of violence and aggression; students and staff feel safe; security measures (e.g., metal detectors, guards) • <u>Discipline and order:</u> Conflict resolution, clarity, fairness, and consistency of rules; belief in school rules; knowledge and implementation of behavioral interventions and supports; behavioral order in the classroom
Community	• <u>Partnership:</u> Role that community members and parents play; parental involvement • <u>Quality of relationships:</u> Trust, interpersonal relationships between staff and students; affiliation • <u>Student connection:</u> Positive regard for teachers and other adults; positive regard for student peers • <u>Connectedness:</u> Cohesion; sense of belonging; sense of community; student involvement (e.g., school sponsored extracurricular activities) • <u>Respect for diversity:</u> Fairness; autonomy; opportunities for decision making; cultural awareness • <u>Responsiveness:</u> Social support provided to meet students/families' needs
Academics	• <u>Leadership:</u> Principals and administration are supportive of teachers; shared leadership that balances continuity and improvement; open lines of communication • <u>Teaching and learning:</u> Quality of instruction; assessments of students; willingness of teacher; student motivation and engagement; teacher expectations; achievement goal structure; teacher's use of supportive practices • <u>Professionalism:</u> A strong professional community that uses knowledge, experience, and research to improve practice; review and assessment of teaching practices; opportunities for growth and development through professional development; data-based decision-making using continuous assessment • <u>Academic press:</u> Demandingness, or the degree to which students perceive that teachers push them to work hard and tackle challenging assignments
Physical Environment	• <u>Comfortability:</u> Heating, lighting, AC; acoustical control; cleanliness; upkeep of maintenance; quality of building • <u>Structural organization:</u> Class size; student to teacher ratio; school size; ability tracking • <u>Availability of resources:</u> Adequacy of supplies, resources, and materials; technology; sharing of resources • <u>Reminders:</u> An environment that symbolizes joy and pride

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