

Understanding School Climate and Measurement: A Research Brief

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Introduction

School climate is defined as the character and quality of the school's culture and environment.¹

According to developmental theory² and empirical neuroscientific research³, children's brains develop in response to the contexts they inhabit, both at home and in school. The school environment can therefore have a considerable impact on child development and readiness to learn.⁴

Though educators have been talking about school climate for more than one hundred years, systematic study of school climate did not begin until the 1950s.⁵ Researchers have since learned that a positive school climate is associated with student academic achievement and wellbeing.

In 2015, the federal Every Student Succeeds Act explicitly recognized the relationship between school climate and student outcomes. It requires states to incorporate nonacademic metrics into their accountability systems and allows states to include measures of school climate and safety. With states now bearing more responsibility for monitoring students' nonacademic success, it is important for state and local leaders in Massachusetts to consider how to measure school climate.

School climate and student outcomes

Positive school climate is associated with improved outcomes for students, both academic and otherwise. Researchers have discovered that academic achievement, as measured by both standardized test scores⁶ and GPA⁷, improves with a positive school climate. A healthy school climate is also associated with higher attendance, better psychological health,

increased safety, and lower rates of aggression.⁸ These benefits can accrue to all students, including those with high-risk family circumstances such as single-parent families and homeless families.⁹

Conversely, schools with hostile school climates can negatively affect at-risk students, having been linked to depression, low self-esteem, feelings of victimization, and lower academic achievement.¹⁰ In 2013-14, 53% of American public elementary schools and 88% of middle schools recorded one or more violent incidents, and 22% of students reported being bullied in 2013.¹¹ A report from the state of California found that two-thirds of students do not experience caring relationships with adults at school. Forty percent of students report not feeling safe, and eighty percent report few opportunities for meaningful participation.¹² Many schools would benefit from additional support to measure and improve school climate.

Measuring school climate

Measuring school climate is complex but possible. Researchers and practitioners seek to use measures to understand a range of interdependent areas or "constructs" related to school climate, including student safety, school connectedness, and school environment. They also wish to understand how individual student, classroom, and school-level factors are related to school climate. Measures include behavioral data such as attendance or disciplinary infractions; perceptions or feelings reported by students, teachers, school staff, and families; and standardized observational tools used for classroom-level climate measures.

Massachusetts and school climate

In 2017, Massachusetts started to collect information related to students' social-emotional learning, health, and safety through a separate questionnaire in the Massachusetts Comprehensive Assessment System (MCAS), Massachusetts' standardized statewide assessment. The questions, which relate to three dimensions of school climate – engagement, safety, and environment – were developed from multiple sources including the U.S. Department of Education's school climate survey. In addition, the state developed a school climate index for each dimension to facilitate the comparison across dimensions, grades, and years. Initial findings from the first year will aid in validation of the tool.¹³ The Massachusetts Department of Elementary and Secondary Education provided reports of aggregate data to schools and districts showing how students perceive their learning environments.¹⁴

Prior to the state's effort, some towns and cities in Massachusetts undertook school climate surveys of students, teachers and parents. For example, since 2009, the Boston Public Schools has administered voluntary annual school climate surveys with questions related to school safety, feelings of acceptance, and teacher effectiveness.¹⁵ Similarly, Pittsfield Public Schools has launched empirically validated district-wide surveys for students and educators; findings from the survey have been disseminated at district and school levels to inform actions plans in schools.¹⁶

School climate measures across the nation

California

Every two years, California's public school system administers the California Healthy Kids Survey (CHKS) to school staff and students in grades 7-9 to measure school climate, student learning engagement, health, and wellbeing. Once reports are released, districts and schools can compare their strengths and weaknesses relative to others.¹⁷ Dr. Gregory Austin, who directs the CHKS project, believes that the data from the CHKS survey can be used to help schools better understand the needs of their students, which can then inform schools' planning processes. Dr. Austin also argues that "the CHKS helps schools harness support for youth prevention programs and helps justify sustaining these programs over the long term" because schools are able to share this data with funders and stakeholders in the hope of supporting effective prevention and intervention programs.¹⁸

New York City

Since 2007, New York City has been administering school surveys to students in grades 6-12, parents, and teachers. The New York City school survey identifies four factors that contribute to school climate: academic expectations, engagement, communication, and safety and respect. After analyzing responses, New York City is able to build district and individual school reports, which allow schools to compare themselves to similar schools in areas such as trust, the supportiveness of their environment, effective school leadership, and rigor of instruction.¹⁹ In 2016, Mayor Bill de Blasio announced new efforts to improve school climate, including decreasing suspensions through a revised discipline plan, expanding resources for high-needs and at-risk students, and increasing data reporting and transparency.²⁰

Nevada

To address educational equity in their state plan under the Every Student Succeeds Act, Nevada is developing a school climate and social and emotional learning measure with the assistance of the American Institutes for Research. The survey, which will be administered to students in grades 5-12, will serve as a needs assessment to inform the work of school social workers funded through school block grants. The social workers will be tasked with supporting "social emotional learning, a caring school climate, and intervention and treatment services to students and families who are struggling with food and shelter insecurity, behavioral health concerns, or overcoming trauma."²¹ Social workers and behavioral health workers will also be trained and supported in creating a positive school climate and "divert[ing] students from the discipline process into a support process."

Examples of evidence-based interventions

There are many ingredients that go into building a positive school climate, including leadership, communications, social-emotional learning, responsive curricula, and trusting relationships. Certain approaches, however, integrate multiple ingredients to build child-centered systems to support students and drive improvements in school climate and student outcomes. Examples include:

City Connects

City Connects is an evidence-based approach to student support, which includes integrating school- and community-based resources to meet the comprehensive needs of students so they are ready to learn and engage in school. At its core is a licensed coordinator who works with teachers and families to understand the strengths and needs of every child and creates a personalized set of existing resources for each student. Resources are tailored to address students' needs – like food, medical care, literacy support, or counseling – and provide opportunities such as afterschool sports or arts programs. Of the 86 principals polled, 92 percent believe the approach improved their school's climate. Teachers who work at City Connects schools feel more supported and demonstrate better classroom management skills.²² Moreover, research shows that in addition to improving school climate, City Connects significantly improves grades and standardized test scores and decreases chronic absenteeism and dropout rates.²³

Responsive Classroom

Responsive Classroom is an evidence-based approach to instruction that promotes students' development in academic and social emotional learning. The initiative enhances educators' capacity to deliver traditional curricula and develop youths' pro-social skills by providing teachers training and support to address classroom climate in four ways: positive community, engaging academics, effective management, and developmentally responsive teaching.²⁴ Educators enhance classroom structure and activity through daily morning meetings, interactive learning activities, and collaborative expectation setting with students.²⁵ A federally sponsored study of the program found that Responsive Classroom approaches had a measurable impact on school climate and student success, including improved relations between students and teachers, enhanced academic instruction, and gains in student achievement.²⁶

Comer School Development Program

Comer School Development Program is "a way of managing, organizing, coordinating, and integrating programs and activities" in a school. By developing a school plan with specific goals, coordinating school activities, promoting desirable social conditions in school, and engaging parents and families so they can support the school's academic and social programs, schools that used the Comer School Development Program model had better school climate, including greater feelings of safety and better relationships, than schools that did not use the Comer School Development Program.²⁷

Conclusion

Understanding school climate and its measurement can assist state and local leaders working to improve learning environments and student outcomes. As Massachusetts prioritizes school climate and develops a statewide measurement tool, education leaders can draw upon national models and evidence-based programs to inform steps towards creating positive climates in their school communities.

References

- ¹ Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180-213.
- ² Bronfenbrenner, U. & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology, Vol. 1: Theoretical models of human development* (5th ed., pp. 993-1023). New York: John Wiley and Sons, Inc.
- ³ Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C. H., Perry, B. D., ... & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European archives of psychiatry and clinical neuroscience*, 256(3), 174-186.
- ⁴ Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180-213.
- ⁵ Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180-213.
- ⁶ MacNeil, A.J., Prater, D.L., & Busch, S. (2009). The effects of school culture and climate on school achievement. *International Journal of Leadership in Education*, 12(1), 73-84.
- ⁷ Wang, W., Vaillancourt, T. Brittain, H.L., McDougall, P., Krygsman, A., Smith, D., Cunningham, C.E., Haltigan, J.D., & Hymel, S. (2014). School climate, peer victimization, and academic achievement: Results from a multi-informant study. *School Psychology Quarterly*, 29(3), 360-377.
- ⁸ Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, 83(3), 357-385.
- ⁹ O'Malley, M., Voight, A., Renshaw, T., & Eklund, K. (2014). School climate, family structure, and academic achievement: A study of motivation effects. *School Psychology Quarterly*, 30(1), 360-377.
- ¹⁰ Kosciw, J.G., Palmer, N.A., Kull, R.M., & Greytak, E.A. (2012). The effect of negative school climate on academic outcomes for LGBT youth and the role of in-school supports. *Journal of School Violence*, 12(1), 45-63.
- ¹¹ Zhang, A., Musu-Gillette, L., and Oudekerk, B.A. (2016). *Indicators of School Crime and Safety: 2015* (NCES 2016-079/NCJ 249758). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.
- ¹² Austin, G., & O'Malley, M. (2012). *Making Data-Driven Decisions in Student Support and School Mental Health Programs: A Guidebook for Practice*. Los Alamitos, CA: WestEd Health & Human Development Program.
- ¹³ Massachusetts Department of Elementary and Secondary Education (2017). *School climate survey pilot*. Retrieved from department staff.
- ¹⁴ Massachusetts Department of Elementary and Secondary Education (2017). Massachusetts Comprehensive Assessment System. Retrieved from: <http://www.doe.mass.edu/mcas/2017/questionnaire/faq.html>
- ¹⁵ Boston Public Schools (2016). School listings. Retrieved from: <https://www.bostonpublicschools.org/Page/628>
- ¹⁶ The Rennie Center for Education Policy. Informational Interview with Pittsfield Public Schools. November 2017.
- ¹⁷ Austin, G., Polik, J., Hanson, T., & Zheng, C. (2016). *School climate, substance use, and student well-being in California, 2013-2015*. Results of the fifteenth Biennial Statewide Student Survey, Grades 7, 9, and 11. San Francisco: WestEd Health & Human Development Program.
- ¹⁸ Austin, G. (2013). The California Healthy Kids Survey: The Case for Continuation. *Prevention Tactics*, 9(8), 1-7.
- ¹⁹ New York City Department of Education (2017). NYC school survey. Retrieved from: <http://schools.nyc.gov/Accountability/tools/survey/default.htm>
- ²⁰ City of New York (2016). Maintaining the momentum: A plan for safety and fairness in schools. Retrieved from: http://www1.nyc.gov/assets/sclt/downloads/pdf/SCLT_Report_7-21-16.pdf
- ²¹ U.S. Department of Education (2017). Nevada department of education consolidated state plan under the Every Student Succeeds Act. Retrieved from: http://www.doe.nv.gov/uploadedFiles/ndedoenvgov/content/Boards_Commissions_Councils/ESSA_Adv_Group/ESSA_Nevada_Consolidated_State_Plan_4.3.17_Finalrev.pdf
- ²² Sibley, E., Theodorakakis, M., Walsh, M., Foley, C., Petrie, J. & Raczek, A. (2017). The impact of comprehensive student support on teachers: Knowledge of the whole child, classroom practice, and Teacher Support. *Teaching and Teacher Education*, 65, 145-156.
- ²³ City Connects (2016). The impact of City Connects on student outcomes: Progress report 2016. Center for Optimized Student Support at Boston College. Retrieved from: <https://www.bc.edu/content/dam/files/schools/lsoe/cityconnects/pdf/City%20Connects%20Progress%20Report%202016.pdf>
- ²⁴ Center for Responsive Schools (2016). What the research says: Two studies conducted by independent evaluators and aligned with the ESSA tiers of evidence. Retrieved from: <https://www.responsiveclassroom.org/wp-content/uploads/2015/11/What-research-says-updated-12.16.pdf>
- ²⁵ Rennie Center (2015). Social and emotional learning: opportunities for Massachusetts, Lessons for the nation. Retrieved from: <http://www.renniecenter.org/research/reports/social-and-emotional-learning-opportunities-massachusetts-lessons-nation>
- ²⁶ Rimm-Kaufman, S. E., Larsen, R. A. A., Baroody, A.E., Curby, T.W., Ko, M., Thomas, J.B., Meritt, E.G., Abry, T., & DeCoster, J. (2014). Efficacy of the Responsive Classroom Approach: Results from a 3-Year, Longitudinal Randomized Controlled Trial.
- ²⁷ Comer, J. P. & Emmons, C.L. (2006). The research program of the Yale Child Study Center School Development Program. *The Journal of Negro Education* 75(3): 353-372. *American Educational Research Journal*, 51(3), 567-603. doi: 10.3102/0002831214523821

