

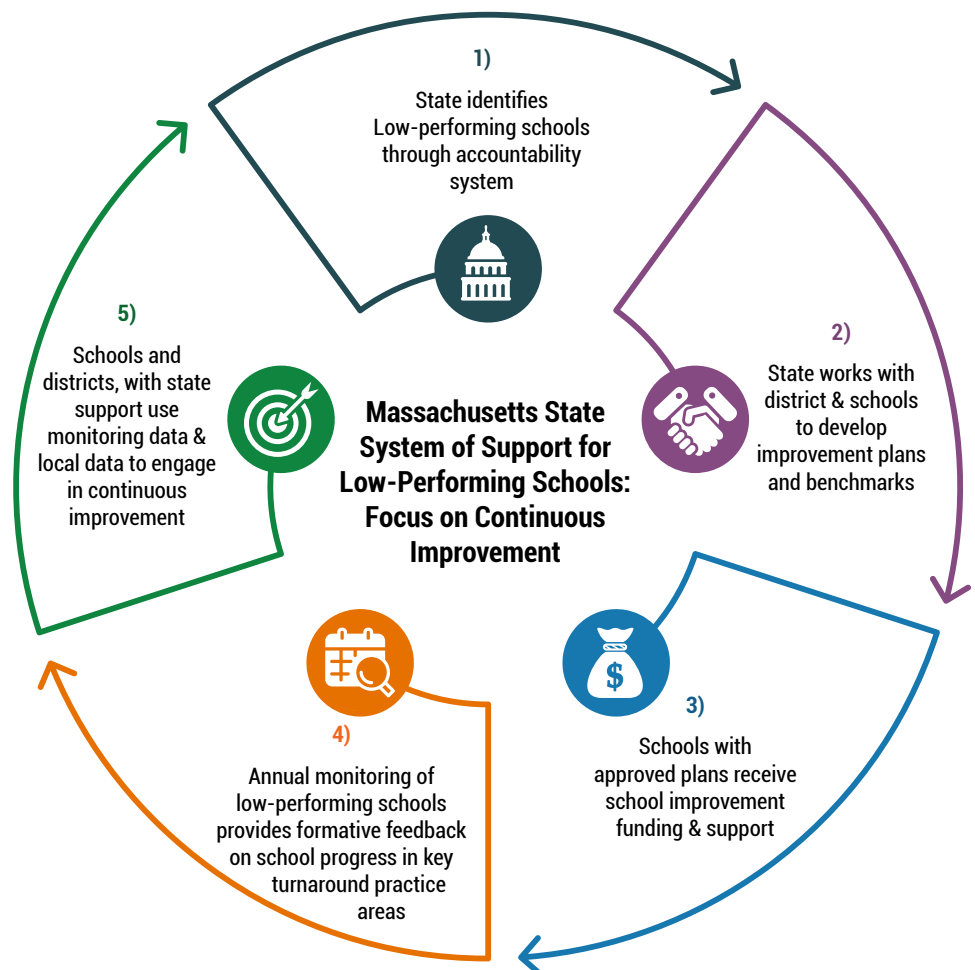
Building Evidence for a State System of Support: Using Research Methods to Inform Struggling Schools' Continuous Improvement Efforts

The Massachusetts Department of Elementary and Secondary Education (DESE) has developed state systems of support for schools identified as low-performing through the state accountability system. The system includes a monitoring process that focuses on four areas: **1) Leadership, Shared Responsibility, and Professional Collaboration; 2) Intentional Practices for Improving Instruction; 3) Student-Specific Instruction and Supports to All Students; and 4) School Climate and Culture.** The monitoring process provides annual formative feedback to low-performing schools and their districts, as well as information about areas of need in the state system of support.

DESE uses a mixed method evaluation approach to inform ratings on each of the [Turnaround Practices and Indicators \(TP&I\)](#) rubric.

REL Northeast & Islands conducted two studies analyzing the relationship between school-wide student outcomes and annual monitoring ratings on instruction and implementation.

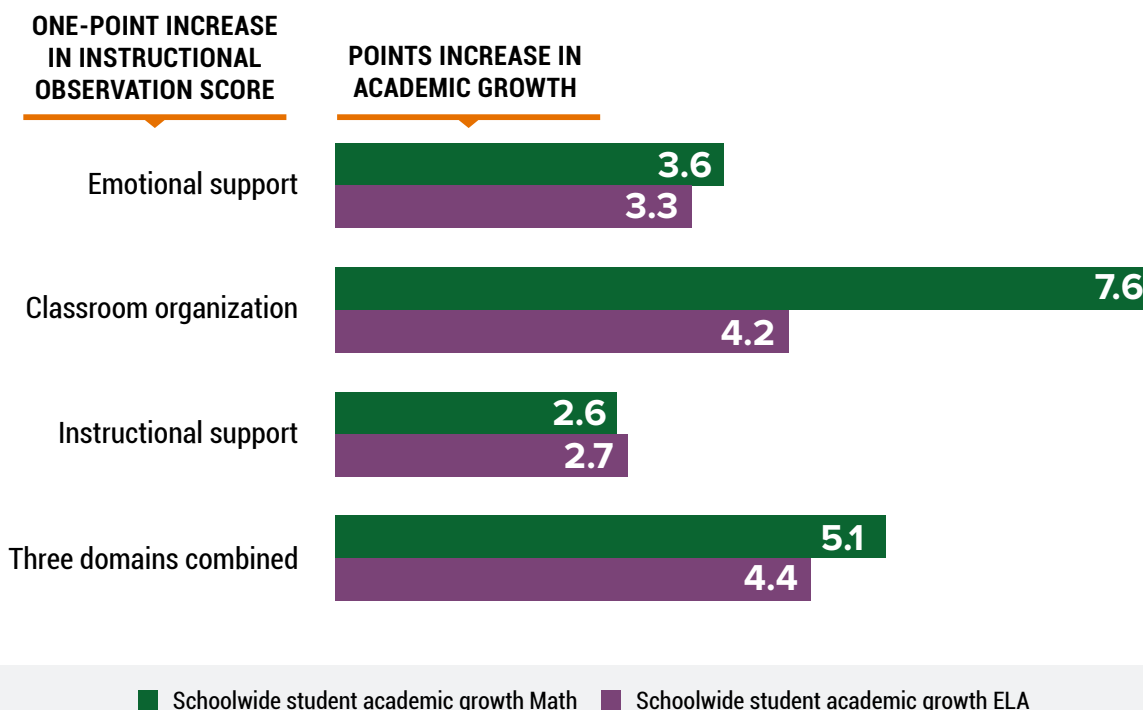
The findings from the two studies analyze the relationship between monitoring data collected annually and improvements in schoolwide student outcomes. Findings suggest DESE's approach includes many ratings that have a significant positive relationship with improved outcomes.



Study #1: Schoolwide Instructional Observations and Student Outcomes

Massachusetts, through an external evaluator, provides feedback on the quality of schoolwide instruction in three domains: **1) emotional support**, **2) classroom organization**, and **3) instructional support**. This approach has statistically significant positive relationships with student growth in English language arts (ELA) and mathematics.

Academic growth in math and ELA: In all three domains, a 1-point increase in schoolwide instructional observation ratings had a statistically significant relationship with an increase in schoolwide student academic growth



In addition, the study found that a one point increase in classroom organization ratings had a statistically significant relationship with an increase in schoolwide academic achievement, defined as the percentage of students scoring proficient or higher on the state assessment.

Study #2: Turnaround Practice Indicator Ratings and Student Outcomes

Massachusetts uses a state developed rubric to provide annual indicator ratings to schools identified as low-performing through the state accountability system. Half of the indicators monitored in Massachusetts low-performing schools had practically meaningful and significant relationships with student outcomes. This means a higher rating on the implementation of an indicator had a significantly positive relationship with an improvement in one or more student outcomes (ELA, math schoolwide academic growth and/or a reduction in chronic absenteeism).

Selected Massachusetts turnaround practice indicators that have statistically significant and strong relationships with school outcomes 2014/15–2018/19

Turnaround Practice Area and Indicator	SCHOOL MEAN STUDENT GROWTH PERCENTILE		
	English Language Arts	Math	Chronic Absenteeism
1. Leadership, Shared Responsibility, and Professional Collaboration			
1.2 High Expectations and Positive Regard			✓
1.5 Trusting Relationships			✓
2. Intentional Practices for Improving Instruction			
2.1 Instructional Expectations		✓	
2.2 Instructional Schedule	✓		
2.5 Student Assessment Date Use (for schoolwide decision-making)	✓		
2.6 Student Assessment Data Use (for classroom instruction)	✓	✓	
2.7 Structures for Instructional Improvement	✓	✓	
3. Student-Specific Supports and Instruction to All Students			
3.1 General Academic Interventions and Enrichment	✓		✓
3.2 Teacher Training to Identify Student Needs	✓		
3.5 Academic Interventions for English Language Learners	✓		
3.6 Academic Interventions for Students with Disabilities	✓		
4. School Climate and Culture			
4.1 Schoolwide Behavior Plan	✓		✓
4.2 Adult-Student Relationships		✓	

Note: Checkmarks (✓) indicate a significant and strong (effect size of at least .25) relationship between the indicator and the outcome at the $p < .05$ level. All the significant relationships are in the desired direction. Blank cells represent findings that were not statistically significant or that were statistically significant but not practically meaningful. Analyses were based on 229 year-specific observations from 91 schools.

Source: Authors' analysis of data for 2014/15–2018/19 from the Massachusetts Department of Elementary and Secondary Education.

Key Terms



Schoolwide Instructional Observations

Schoolwide instructional observation data are collected using Teachstone's Classroom Assessment Scoring System (CLASS). CLASS examines the quality of interactions between teachers and students during instruction, focusing on three domains: 1) emotional support, 2) classroom organization, and 3) instructional support.



Turnaround Practices and Indicators (TP&I) rubric

A monitoring system developed by the Massachusetts Department of Elementary and Secondary Education for rating low-performing schools' implementation of 26 turnaround best practices (or indicators) that are based on research on school improvement and turnaround. Available at: <https://www.doe.mass.edu/turnaround/howitworks/msv-secondary-turnaround-practices-indicators.docx>



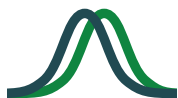
Schoolwide Academic Growth

The mean student growth percentile (SGP) is calculated by DESE and provides a schoolwide mean for academic growth. Mean SGPs are calculated separately for English language arts and math and range from 1 to 99, with higher values representing greater progress. Mean SGPs between 40 and 60 represent typical growth. This study uses the mean SGP scores in English language arts and math among all students in tested grades in a school as one of the outcome measures.



Chronic absenteeism

Missing 10 percent or more of school days in a school year (or days in membership in the school), the equivalent of 18 or more days based on a 180-day school calendar.



Effect Size

A measure of the practical importance or strength of the relationships found between Turnaround Practices and Indicators implementation ratings and schoolwide student outcomes as a proportion of the standard deviation. The report highlights findings with an effect size of .25 or greater, a widely cited benchmark for an intervention effect to have "educational significance."

REFERENCES

- Therriault, S. B., Walston, J., Li, Y., & Pan, J. (2020). Relationships between schoolwide instructional observation scores and student academic achievement and growth in low-performing schools in Massachusetts (REL 2020–026) <https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=4587>. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands.
- Pan, J., Walston, J., & Therriault, S. (2021). Relationship between state annual school monitoring indicators and outcomes in Massachusetts lowest performing schools (REL 2021–085) <https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=6688>. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands.