IES Institute of Education Sciences

STUDY SNAPSHOT
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Regional Educational Laboratory Northeast & Islands
At Education Development Center, Inc.

Relationships between Schoolwide Instructional Observation Scores and Student Academic Achievement and Growth in Low-Performing Schools in Massachusetts

The Massachusetts Department of Elementary and Secondary Education, like other state education agencies and school districts, recognizes that the quality of instruction is a key lever to turning around low-performing schools. As part of annual monitoring of low-performing schools, the department uses Teachstone's Classroom Assessment Scoring System (CLASS) instructional observation tool to assess the quality of teacher and student interactions in three domains: emotional support, classroom organization, and instructional support. Researchers at the department and the Regional Educational Laboratory Northeast & Islands examined the relationships between schoolwide instructional observation scores gathered during annual monitoring visits to low-performing schools and schoolwide student academic achievement and growth.[1] While relevant for policy, the associations may not be generalized to other types of schools and do not imply causal relationships.

Key findings

- *Only instructional observation scores in the classroom organization domain had a statistically significant positive relationship with schoolwide student achievement on the state English language arts assessment.* There was no significant relationship between instructional observation scores in the emotional support or instructional support domain or the three domains combined and schoolwide student achievement in English language arts (table 1). The relationship between scores in the other two domains and student academic achievement may be weak because student achievement is influenced by factors that precede current instructional quality. There were no significant relationships between scores in any domain and schoolwide student achievement in math.
- *Schoolwide instructional observation scores in all three domains had a statistically significant positive relationship with student growth in English language arts and math.* A statistically significant positive relationship was also found between a school's overall instructional observation score and student academic growth. On a 7 point scale, a 1 point increase in a school's overall instructional observation score was associated with an increase in student academic growth of 4.4 percentile points in English language arts and 5.1 percentile points in math (see table 1). This finding suggests that the CLASS tool, as a schoolwide measure of instructional quality, may be useful to DESE and to the schools as they interpret the annual monitoring information.

Table 1. The relationships between schoolwide observation scores in the three domains combined and student growth in English language arts and math are statistically significant, 2016/17 or 2017/18

	Schoolwide student academic achievement		Schoolwide student academic growth	
Domain	English language arts	Math	English language arts	Math
Combined domains	2.9	3.4	4.4**	5.1**

** Significant at $p < .01$.

Note: The overall sample included 88 low-performing schools that received a monitoring visit in 2016/17 or 2017/18. Because 12 of those schools spanned both elementary and secondary grade spans, the sample size for schools with elementary grade spans is 46, and the sample size for schools with secondary grade spans is 54. Schoolwide student academic growth was calculated as the school's median student growth percentile. Coefficients show the percentage point increases in schoolwide student academic achievement and median student academic growth percentile associated with a 1 point increase in the 7 point schoolwide score.

Source: Authors' analysis based on data from the Massachusetts Department of Elementary and Secondary Education.

1. The lead author supported the design of the overall monitoring process but did not have a role in the design of the instructional observation process or the data collection tool used in this study, which were developed by Teachstone.

For the full report with technical details, see https://go.usa.gov/xGxbM.