

Using Classroom Renovations and Center-Based Learning to Improve Teacher-Student Interactions in Grades PK-2

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BACKGROUND

The School District of Philadelphia (SDP) renovated 31 PK-2 classrooms in the summer of 2017 at three elementary schools and one PK center. In addition to structural updates, classrooms received new furniture and manipulatives to facilitate center-based learning and teachers received 14 hours of professional development and training. Centers are an integral part of the District-mandated 120-minute literacy block that K-3 classrooms implement on a daily basis in order to improve literacy rates.

OBJECTIVES

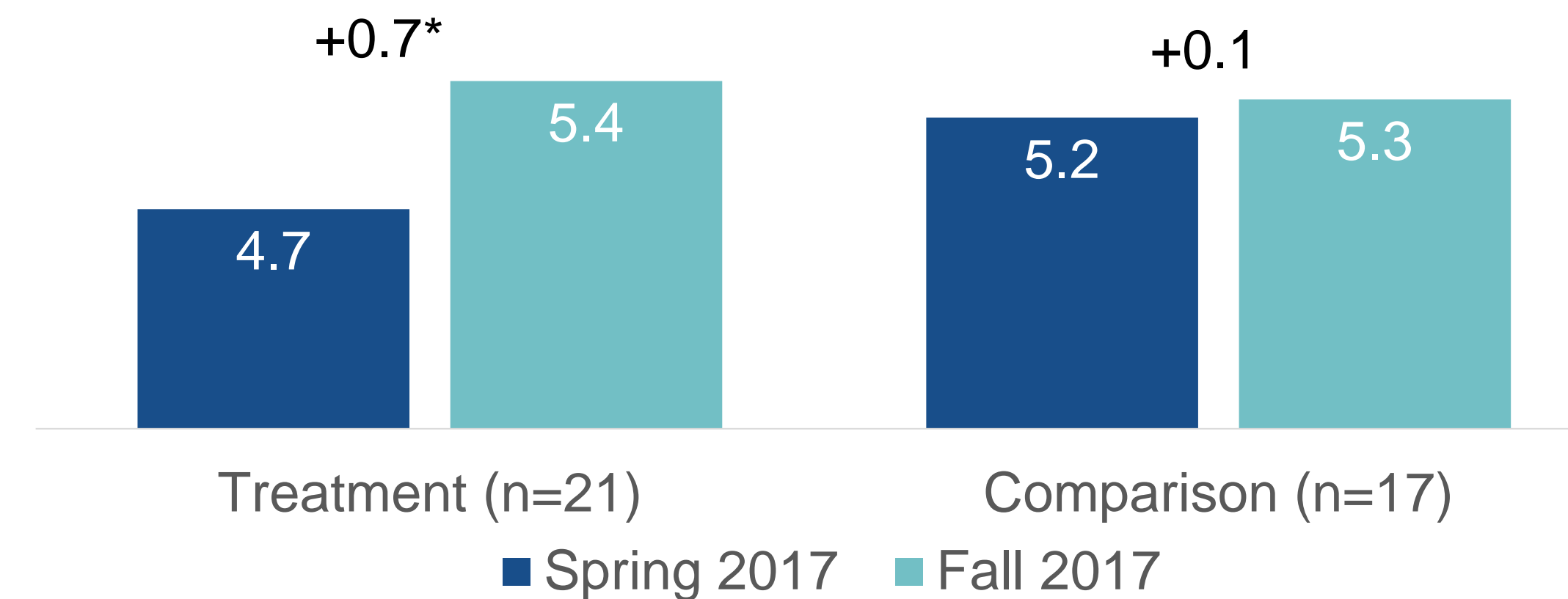
- The purpose of the classroom renovations, new center furniture and materials, and teacher professional development was to better facilitate the integration of centers into the literacy block and improve teacher-student interactions.
- Primary research question: To what extent has the project improved teacher-student interactions?

METHODS

- The Office of Research and Evaluation (ORE) conducted classroom visits in four treatment and four comparison schools at three time points: spring 2017, fall/winter 2017-18, and spring 2018.
- ORE used the Classroom Assessment Scoring System (CLASS, a nationally validated tool developed at the University of Virginia to assess classroom quality). It includes three domains of teaching that are linked to student achievement and development: emotional support, classroom organization, and instructional support. The CLASS was chosen to measure changes in teachers' interactions with students as an intermediate result for later student outcomes.
- ORE surveyed treatment teachers in February 2018 about their experience with the project.

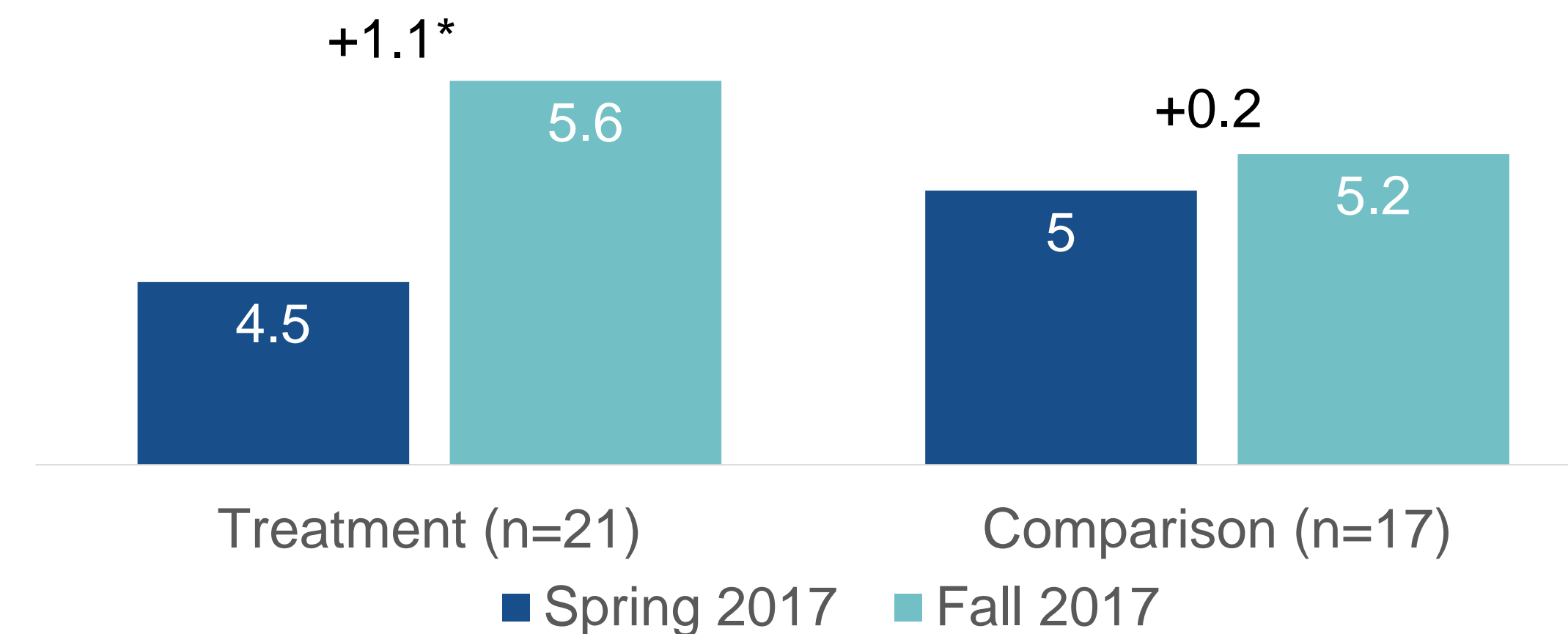
PRELIMINARY FINDINGS

Figure 1. Treatment Teachers Showed Statistically Significant Growth in Emotional Support Domain



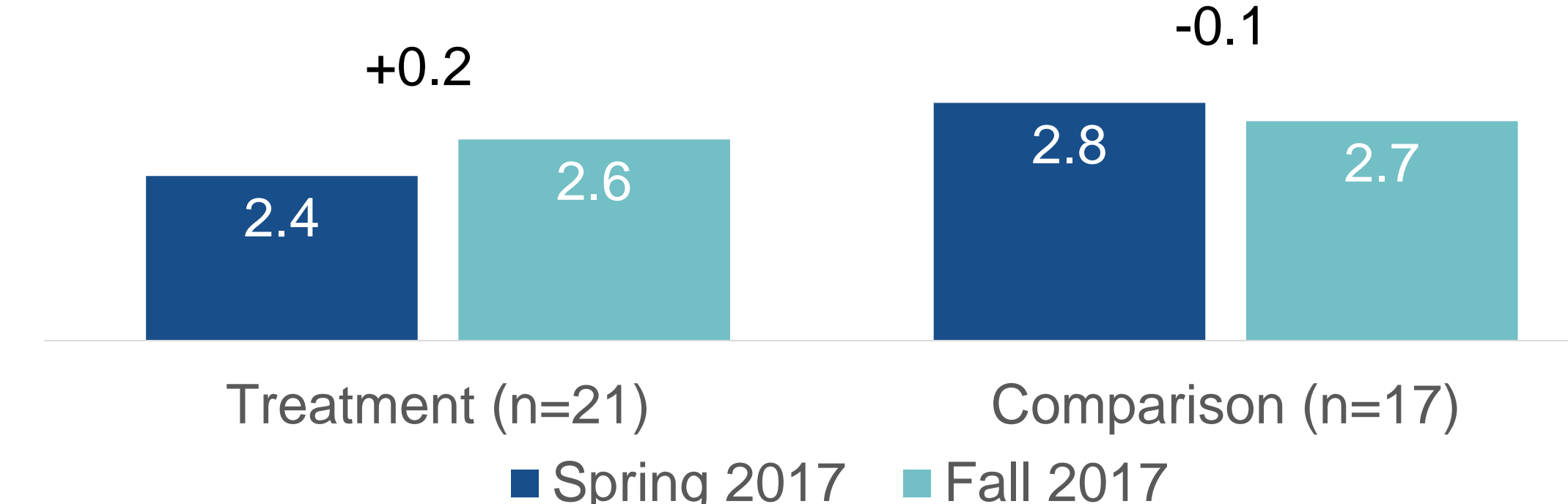
*Difference is statistically significant using a paired samples t-test ($t=2.8, p=.01$)

Figure 2. Treatment Teachers Showed Statistically Significant Growth in Classroom Organization Domain



*Difference is statistically significant using a paired samples t-test ($t=3.9, p=.00$)

Figure 3. Treatment Teachers Showed Very Slight Growth in Instructional Support Domain (Though Not Statistically Significant)



- Results are shown here for the first two rounds of observations. Classroom results are only included if they have both a spring 2017 and fall/winter 2017-18 observation.
- Treatment teachers showed statistically significant growth in the Emotional Support and Classroom Organization domains.
- Treatment teachers showed statistically significant growth in all dimensions under Classroom Organization (Behavior Management, Productivity, and Instructional Learning Formats).
- Kindergarten teachers showed statistically significant growth in the Classroom Organization domain and 2nd grade teachers showed statistically significant growth in the Emotional Support domain.
- On the teacher survey, all respondents said they use centers daily during the literacy block. Teachers also reported seeing benefits to the literacy environment in their classroom and student creativity.

NEXT STEPS

- Preliminary findings suggest that changes to the physical environment relate to changes to teacher-student interactions in that environment.
- SDP committed to renovate an additional 11 schools for the 2018-19 school year.
- ORE will complete the third round of observations in spring 2018 in addition to focus groups of teachers.

CONTRIBUTORS

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