Beyond Treatment and Control: The Contribution of Fidelity of Implementation of the Responsive Classroom Approach on Teacher-Student Interaction Quality in the First Year of an Experimental Field Trial

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Background

Teacher-student interactions predict youth’s social and academic outcomes and are of increasing interest to researchers. Conceptually, social emotional learning (SEL) innovations improve such interactions, though empirical support is limited. While valuable, randomized control trials do not ensure implementation of the intervention as intended, nor do they ensure “business as usual” in the control group. Testing the fidelity of implementation (FOI) of an SEL intervention on teacher-student interactions improves understanding of innovation efficacy and may help substantiate the link between SEL classroom processes.

Quantifying differences in FOI between treatment and control groups (e.g., via an index of Achieved Relative Strength (Hullman & Corday, 2009)) can contribute to our understanding of program uptake in early-stage implementation.

Research Questions

RQ 1) Do teachers randomly assigned to receive training and support in the use of the Responsive Classroom (RC) approach have higher quality observed teacher-student interactions compared to the control group after one year?

RQ 2) Is teacher-reported FOI of RC practices in treatment and control groups related to observed teacher-student interaction quality?

RQ 3) What is the Achieved Relative Strength of FOI of RC practices between treatment and control groups?

The Responsive Classroom® Approach

RC is an approach to elementary teaching focused on creating an optimal learning environment for students’ social, emotional, and academic growth. RC emphasizes the importance of social development, school and classroom climate, and understanding students as unique individuals. RC training consists of two-week-long institutes typically spaced one year apart. RC is comprised of 10 key practices, five of which are emphasized in the first training sequence (RC 1).

Additional information can be found at www.responsiveclassroom.org

Methods

Participants

Randomization of 24 schools was stratified based on percent of students eligible for free/reduced lunch and minority student composition, resulting in 13 experimental schools and 11 control schools.

96 third grade teachers from the 24 schools (49 experimental, 47 control) participated.

Measures

Classroom Assessment Scoring System (CLASS) - a measure of teacher-student interaction quality in 10 dimensions categorized into four domains.

Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspectives

Classroom Organization (α = .60) - Behavioral Management, Productivity, Instructional Learning Environments

Instructional Support (α = .86) - Concept Development, Quality of Feedback, Language Modeling

Classroom Practices Teacher Survey (CPTS) - 46 item (α = .87) teacher report of FOI of RC practices.

Analytic Plan

Teacher Characteristic

Control (n = 47) Treatment (n = 49)

% M % M

Female 92 94 81 90

White 85 87 82 84

Age 38 36 40 36

Years teaching 10 8 8 9

Has master’s degree 60 63 51 51

Procedures

Baseline measures of teacher-student interaction quality were collected in spring 2008. Teachers assigned to the experimental group received RC 1 training in summer 2008 and on-site consultations with RC coaches throughout the 2008-09 school year.

All teachers were observed twice (50 min. each) during typical morning instruction, once in fall 2008 and once in spring 2009.

Two segments were coded for teacher-student interaction quality within each 60 minute observation.

All teachers completed a self-report on the use of RC practices at the end of the 2008-09 school year.

Results

RQ 1) There were no causal effects of treatment assignment on teacher-student interaction quality.

RQ 2) Teachers’ FOI of RC practices was predictive of observed student interaction quality (test statistic = 2.63, p < .01) in control schools. Classroom Organization (test statistic = 2.92, p < .01), but not Instructional Support.

RQ 3) Adjusting for nestling and small sample size, the Achieved Relative Strength of FOI of RC practices between treatment and control groups was p = .17, indicating that RC teachers were over one standard deviation higher in their reported use of RC practices compared to the control group.

Discussion

One year of training and coaching support in the use of RC is not a “magic bullet” for improving teacher-student interaction quality.

Teachers reporting more use of RC practices had higher quality emotional and managerial interactions with students.

Despite higher FOI in the RC group, the difference between groups in reported use of RC practices in absence of formal training. Some RC practices mirror best-practices in teaching, which may help explain this finding.

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