Bay State Reading Institute

The Data-Driven School Transformation Partnership

DID THE WISDOM PROJECT, INCLUDING THE ADVANCEMENT VIA INDIVIDUAL DETERMINATION COURSE, IMPROVE STUDENT ACADEMIC OUTCOMES AND COLLEGE READINESS?

Project Overview

THE PROBLEM: What Challenge Did the Program Try to Address?

Language Arts mastery among Massachusetts students is low. Among students in the i3 partner elementary schools, 55% of third-graders scored below proficient on the 2009 Massachusetts standardized literacy test, 12 percentage points more than the state average of 47%. These scores are representative of many years of past performance.

THE PROJECT: What Strategies Did the Program Employ?

The Bay State Reading Institute (BSRI), with a 2010 – 2015 i3 development grant, created the Data-Driven School Transformation Partnership (DSTP)[1], a whole-school reform model that seeks to impact school leadership, use of data, professional development, and instructional practices. BSRI, along with the 17 elementary school partners that comprise the DSTP, proposed to use this balanced approach to build the capacity of each school to effectively and consistently implement a research-based literacy approach that focuses on the use of data to significantly and consistently improve teachers' instruction and targeted support for students, leading to improved student achievement. While DSTP practices are intended to eventually impact instruction across the curriculum, the model focuses on reading instruction, leadership, and support structures, as seen in the table below. The impact study compares the performance on the MA state English Language Arts test (MA ELA) of elementary students (3rd, 4th, and 5th grades) in BSRI schools with the performance of elementary students in a group of schools in Massachusetts that are similar in terms of baseline student reading achievement and key demographic characteristics. The study used a short-interrupted time series design with a comparison group (C-SITS) of non-BSRI matched schools in the state.

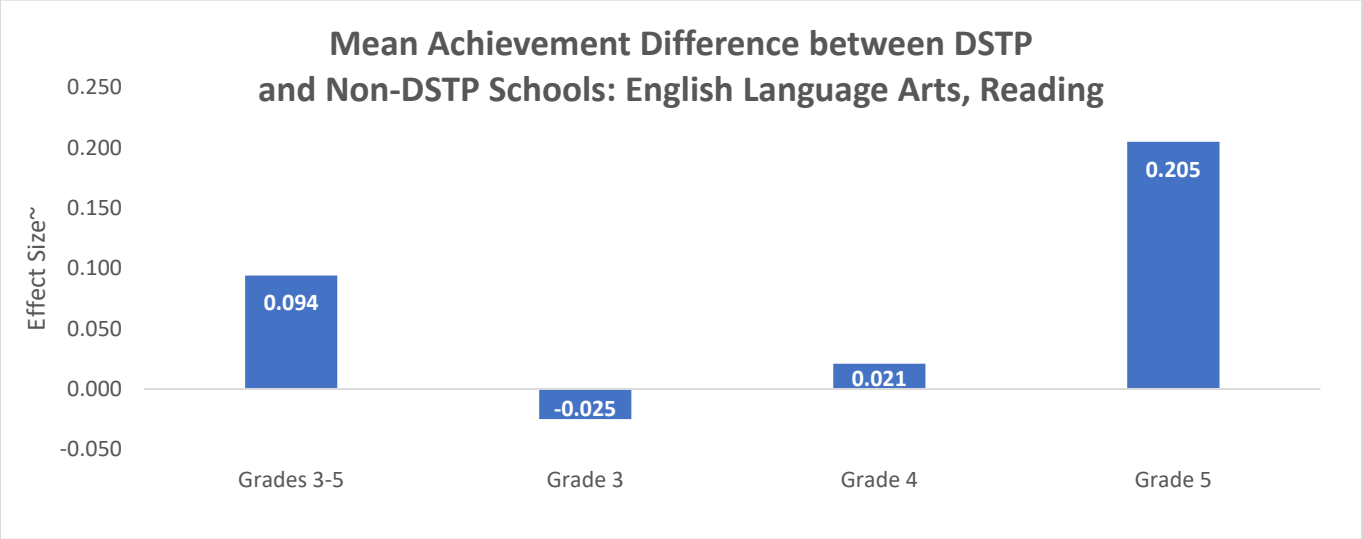
[1] Bay State Reading Institute received an i3 development grant supported by the U.S. Department of Education's Investing in Innovation program through Grant Number U396C100623. Development grants provide funding to support the development or testing of novel or substantially more effective practices that address widely shared education challenges. All i3 grantees are required to conduct rigorous evaluations of their projects. The quality of evidence required to demonstrate a project's effectiveness depends on a project's level of scale or grant type.

BAY STATE READING INSTITUTE MODEL

- **Reading Instruction.** This whole-school reform brings to schools scientifically-based curricula with scope and sequence and pacing guides, as well as differentiated curriculum materials. The scope and sequence and pacing guides align with state standards. The curriculum materials take into account the five key elements of reading instruction (phonemic awareness, phonics, fluency, vocabulary, and comprehension).
- **Common Planning Time.** Common planning time (CPT) is a necessary support to ensure instruction with fidelity and should be scheduled for a minimum of 40 minutes for each grade level on a weekly basis. During these meetings, teachers are expected to develop goals, plan for instruction, examine data, and discuss individual student progress. Book studies and other professional development may also occur during this time. The school's reading coach attends these meetings and is responsible for maintaining binders with agendas and notes. The principal is expected to attend on a monthly basis.
- **Data use.** Data is the impetus for most actions taken in a BSRI school. The interpretation of assessment results immediately determines assignment of interventions to students and the regrouping of students during the reading block. Longitudinal data are used to determine teacher effectiveness and student achievement.
- **Literacy interventions.** Literacy interventions follow the Response to Intervention (RtI) model and are determined on the basis of need, not on any pre-existing determination, such as special education status. They involve intensive instruction provided one to two times daily by staff who have received professional development in the intervention tool.
- **Leadership.** Each school has a literacy leader and a reading coach. The leader is directly involved in setting a vision for literacy programming, establishing and enforcing expectations for instruction with fidelity and leading the use of data. The coach balances the leader's role by providing direct supports to teachers to help them meet expectations for instruction and the use of data.
- **BSRI Supports.** BSRI's theory of action includes three supports that BSRI believes are vital to implementing its core practices: BSRI Principal Coach, BSRI Literacy Consultant, and professional development. The primary role of the BSRI Principal Coach is to help develop a vision for implementing the model, provide a sounding board for solving implementation issues, and to provide specific, skill-based support to fill any gaps in the principal's knowledge base.
- **Teacher Interaction with/and Responsibility for All Students.** BSRI expects the classroom teacher to participate daily in the small group instruction of all students. While other interventionists may work with groups within a class, the classroom teacher is expected to plan and follow this instruction and is ultimately responsible for the progress of all his/her students. Teachers should meet with all reading groups every day.

Summary of Results

DID THIS PARTNERSHIP IMPROVE READING ACHIEVEMENT IN LOW-PERFORMING SCHOOLS?



~ Education researchers generally interpret effect sizes as follows: 0.2 = small, 0.5 = medium, and 0.8 = large. If the impact does not have an effect size of 0.2 or greater, it is not meaningful, even if it is statistically significant.[2]

Averaged across years, the study did not find effects of BSRI, either when grades were combined or when grades were examined separately. Inclusion of the implementation year in the analytic model did not affect cross-grade results.

- **READING BY GRADE.** When examined separately, average performance of 3rd, 4th, and 5th graders in DSTP schools still did not statistically differ from non-DSTP schools.

Please see Appendices A and B for information about the evaluation's design and the quality of the evidence, respectively. Information about the reading and literacy assessments used by DSTP can be found below in the "Program Implementation and Evaluation Resources" section.

[2] Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.

OTHER CONSIDERATIONS

Researchers found some evidence that DSTP schools were approaching statistically significant improvements (compared to comparison schools) when the four-year study ended. They theorized several reasons why these schools were only starting to show some signs of improvement at that late date, including:

- **MAXIMUM IMPACT.** After four years, DSTP schools were operating at the full level of the program, so perhaps only at such high levels of implementation will the intervention show effects.
- **INCREASED FIDELITY.** Teachers and administrators may have implemented the program with more fidelity each year, thus improving the likelihood for success.
- **SCHOOL MATCHING.** Perhaps researchers better matched the schools in the first cohort against comparison schools, compared to matches made in later years. This would make it harder for researchers to detect changes in those later cohorts. However, the researchers themselves discount this possibility, given the size of the pool from which they identified matching schools.

For More Information

Evaluation Reports	Additional Reports
Final Evaluation Report (Full Report) (The Evaluation Group, September 2015)[3]	

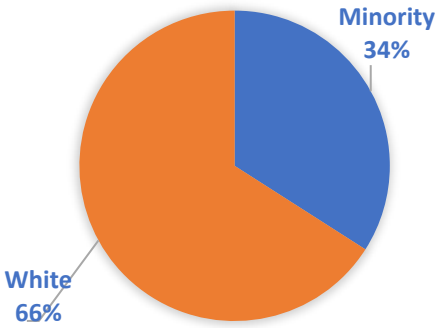
[3] The information and data for this result summary was collected from the most recent reports as of 01/23/2020: "The Data-Driven School Transformation Partnership: A Project of the Bay State Reading Institute and 17 Massachusetts Elementary Schools." The Evaluation Group, September 2015.

Appendix A: Students Served by the Project[4]

GRADE(S)

PK	K	1	2	3	4	5	6	7	8	9	10	11	12

RACE/ETHNICITY



High-Need Students[i]

Free/Reduced Price Lunch	English Learners	Students with Disabilities
52%	25%[5]	Not Reported/Not Applicable

[4]These data reflect the entire student population served by the intervention, not just the evaluation sample used in the impact study.
[5] English Learners data is from the project abstract.

Appendix B: Impact Evaluation Methodology[6]

RESEARCH DESIGN:

Design:	Short-interrupted time series design with a comparison group (C-SITS)
Approach:	▪ The students in DSTP schools were compared to students in non-DSTP schools, using performance on the Massachusetts state English language arts (ELA) tests (grades 3-5) were aggregated to the school level. ▪ All schools in both groups had ELA data for at least the five years prior to the start of the study and up to four years after the intervention began.
Study Length:	Nine years (including the use of between five to seven years of pre-treatment data and between two to four study years – depending on the cohort)

DATA COLLECTION AND ANALYSIS

Study Setting:	Seventeen public elementary schools in districts in Massachusetts, matched to 166 comparison schools
Final Sample Sizes:	▪ *Intervention Group:* 17 schools ▪ *Comparison Group:* 166 schools
Intervention Group Characteristics:	▪ Average percent proficient in ELA, grades 3-5: 49.93% ▪ Average percent minority: 34.05% ▪ Average percent eligible for Free/Reduced Price Lunch: 51.85% ▪ Average Cumulative Performance Index (CPI) in ELA score, grades 3-5: 79.24
Comparison Group Characteristics	▪ Average percent proficient in ELA, grades 3-5: 50.67% ▪ Average percent minority: 34.59% ▪ Average percent eligible for Free/Reduced Price Lunch: 49.46% ▪ Average Cumulative Performance Index (CPI) in ELA score, grades 3-5: 79.69
Data Sources:	▪ School reports from Massachusetts
Key Measures:	▪ Massachusetts ELA test scores for grades 3-5

[6] These data reflect only the evaluation sample in the impact study, not the entire population served.

Appendix C: Quality of the Evidence

Although an evaluation may not have been reviewed by the time of publication for this summary, it is possible that the study will be reviewed at a later date. Please visit the websites found in the footnotes on this page to check for updates

WHAT WORKS CLEARINGHOUSE REVIEW[7]

STUDY	RATING
Not reviewed as of 01/23/2020	N/A

EVIDENCE FOR ESSA REVIEW[8]

STUDY	RATING
Not reviewed as of 01/23/2020	N/A

NATIONAL CENTER ON INTENSIVE INTERVENTIONS REVIEW[9]

STUDY	RATING
Not reviewed as of 01/23/2020	N/A

[7] https://ies.ed.gov/ncee/wwc/FWW
[8] https://www.evidenceforessa.org/
[9] https://intensiveintervention.org/

*The **Investing in Innovation Fund (i3)**, established under section 14007 of the American Recovery and Reinvestment Act of 2009, is a Federal discretionary grant program at the U.S. Department of Education within the Office of Elementary and Secondary Education (OESE). i3 grants help schools and local education agencies work in partnership with the private sector and the philanthropic community to develop and expand innovative practices that improve student achievement or student growth, close achievement gaps, decrease dropout rates, increase high school graduation rates, and/or increase college enrollment and completion rates for high-need students.*

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[i] "High-need student" refers to a student at risk of academic failure or otherwise in need of special assistance and support, such as students who are living in poverty, attend high-minority schools, are far below grade level, who have left school before receiving a regular high school diploma, at risk of not graduating with a diploma on time, who are homeless, in foster care, have been incarcerated, have disabilities, or who are English learners. For more information see: Applications for New Awards; Investing in Innovation Fund-Development Grants, 81 FR 24070 (April 25, 2016).