

St. Vrain Valley School District

St. Vrain Investment in Innovation (i3) Project

DID THE ST. VRAIN I3 PROJECT IMPROVE STUDENT ACHIEVEMENT?

Project Overview

THE INTERVENTION

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

The St. Vrain Valley School District in Colorado i3¹ project targeted students with low proficiency levels in reading (for students in grades 3–5) and mathematics (for students in grades 8–10). The student population served included students at risk of failing in literacy at Title I schools; mathematics students at risk of failing at Heritage and Trail Ridge middle schools; STEM students at Skyline High School; Title I students, Hispanic students, and English language learners (ELLs).

THE PROJECT: What Strategies Did the Program Employ?

Supported by an i3 development grant between 2010 and 2015, the St. Vrain Valley School District designed a data-driven decision-making process that incorporated information technology and specific content-focused interventions (i.e., literacy, math, science) in grades K–12, as implemented in one feeder school system within the district. The project targeted four elementary schools (Columbine, Loma Linda, Rocky Mountain, and Spangler), two middle schools (Heritage and Trail Ridge), and one high school (Skyline) in the district. The primary goals of the program, as related to student outcomes, were as follows: increased proficiency scores on statewide assessments, improved student growth and performance, and improved student retention and graduation rates. The program's evaluators used a mixed methods design that collected and analyzed both quantitative and qualitative data and compiled statistics to examine longitudinal trends. The study incorporated a set of non-program comparison schools, matched to program schools on baseline student outcomes and school demographics.

¹ The St. Vrain Valley School District received an i3 development grant supported by the U.S. Department of Education's Investing in Innovation program through Grant Number U396C100641. 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.

THE ST. VRAIN MODEL

- **Data-Driven Intervention.** Students received regular progress monitoring and targeted academic support. For some students, additional support was provided during a seven-week summer program. The academic focus was language arts for elementary grades, mathematics for middle school grades, and mathematics and science in high school. At Skyline High School, 100 students were admitted to a STEM academy as well as the summer academy.
- **Teacher Professional Development (PD).** Teachers were provided with PD trainings that focused on the administration of screening procedures and the use of data to adapt instruction. Specifically, the trainings facilitated understanding of student progress and screening scores, thereby aiding the targeting of additional interventions during the school year.
- **Summer Program.** Each year, around 120 elementary students and 100 middle school students were admitted to a summer program. Students were selected due to low academic performance. Students in 5th grade and 8th grade were not eligible to be part of the program as they were transitioning to new schools. Special education students who did not require one-on-one instruction and had low academic performance were also eligible.

Summary of Results

DID THE ST. VRAIN I3 PROJECT IMPROVE STUDENT ACHIEVEMENT?

The St. Vrain Valley School District i3 project produced mixed results in math and reading achievement. The evaluators conducted descriptive statistical analyses, so measures of statistical significance were not included.

- **READING ACHIEVEMENT.** Except for Spangler (an intervention group school), there was an increase in average reading scores in both the intervention and comparison schools. For the intervention schools, average scores went up by over 40% at Rocky Mountain, increased by 15% at Columbine, and remained flat at Loma Linda. The average score at Spangler decreased by 24%.
- **MATHEMATICS ACHIEVEMENT.** Except for Carbon Valley middle school (a comparison group school), average student mathematics scores increased uniformly through the 8th grade and then decreased in 9th grade in both the intervention and comparison schools. Students in the intervention schools exhibited a gain of 44 points in their average scores between 6th grade and 8th grade.

Please see Appendices B and C for information about the evaluation's design and the quality of the evidence, respectively.

SECONDARY FINDINGS

The project's evaluators reported additional outcome measures for student reading and math performance. These measures also indicated that the project produced mixed results.

- **STUDENT PROFICIENCY.** The percentage of students who scored proficient or advanced in reading decreased slightly from 50% in 2011 to 47% in 2012, increased to 57% in 2013 (just 2% shy of the target of 59%), and then dipped to 53% in 2014. The percentage of students who scored proficient or advanced in mathematics decreased from 34% in 2011 to 31% in 2012, increased to 34% in 2013, and then fell to 33% in 2014. The target was 45%.
- **REPEAT LOW PERFORMERS.** The percentage of students repeatedly categorized as low performers in reading increased 1% overall from 2011-2014, going from 12% in 2011 to 13% in 2014, a figure that was 5% higher than the target of 8%. The percentage of students repeatedly categorized as low performers in mathematics increased 2% overall from 2011-2014, going from 21% in 2011 to 23% in 2014, a figure that was 8% higher than the target of 15%.

OTHER CONSIDERATIONS

Other aspects of the St. Vrain i3 project's implementation and impact are discussed below:

- **HISPANIC STUDENTS' DROPOUT AND GRADUATION RATES.** St. Vrain made progress in addressing the educational needs of Hispanic students, as measured by changes in their dropout and graduation rates from Skyline High School. However, 2014 proved to be somewhat of a setback to the gains achieved through 2013. On the one hand, the dropout rate dipped to 1.6%, 0.4% lower than the target rate of 2%. On the other hand, the graduation rates of Hispanics reached 83% in 2012, 7% higher than the target of 76%, but decreased steadily to the target of 76% by 2014. The setback in this indicator in 2014 was due, in part, to the reentry into Skyline of students from the district's Adult Education program, which had closed in 2013.
- **NUMBER AND COST OF STUDENTS SERVED.** The project exceeded its target number of students served in 2014 with 1,186 students, 256 more than the target of 930. By 2014, the cost per student served by the project reached \$536, \$147 less than the target cost of \$683 per student.
- **DEMOGRAPHIC SHIFTS:** There was an increase in the percentage of ELL students in grades 3, 4, and 5 in the intervention elementary schools, where reading was the focus of the project (going from 70% in 2011 to 74% in 2014). There was also an increase in the percent of ESL students in the grades and schools in which mathematics was a focus, with a notable increase from 23% in 2013 to 28% in 2014.

For More Information

Evaluation Reports

[Final Evaluation Report \(Full Report\)](#) (EPI International, December 2015)²

[Executive Summary](#) (St. Vrain Valley Schools, December 2015)

² The information and data for this result summary was collected from the most recent reports as of 01/22/2020: EPI international (2015). *St. Vrain Valley School District i3 Project Evaluation: Student Outcomes Report*. Retrieved from [http://www.svvsd.org/files/SVUSD-Grant-Performance-Report-\(ED-524B\)-External-Evaluator.pdf](http://www.svvsd.org/files/SVUSD-Grant-Performance-Report-(ED-524B)-External-Evaluator.pdf)

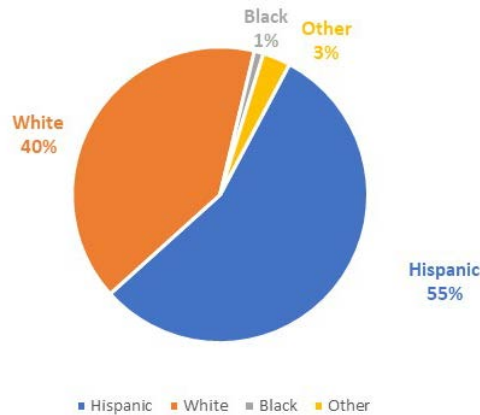
Appendix A: Students Served by the Project³

GRADE(S)													
PK	K	1	2	3	4	5	6	7	8	9	10	11	12

GENDER

Not Reported

RACE/ETHNICITY



COMMUNITY

Not Reported

HIGH-NEED STUDENTSⁱ

Free/Reduced-Price Lunch	English Learner	Students with Disabilities
58.8%	N/A	7.1%

³These data reflect the entire student population served by the intervention, not just the evaluation sample used in the impact study.

Appendix B: Impact Evaluation Methodology⁴

RESEARCH DESIGN:

Design:	Mixed methods design
Approach:	<ul style="list-style-type: none">The statistical analyses examined retention rates and average state assessment performance using three approaches. The first approach examined Hispanic dropout and graduation rates in Skyline High School over the life of the grant; the second examined student performance (as captured by accountability ratings) during the grant; and the third focused on the student cohorts in the initial year of implementation and followed these cohorts through the four years of the project, comparing their results to students within a set of comparison schools. In each approach, the study examined reading scores in grades 3-5 and mathematics scores in grades 7-9 within the program schools.
Study Length:	Five years (2010-2015)

DATA COLLECTION AND ANALYSIS

Study Setting:	Four elementary schools (Columbine, Loma Linda, Rocky Mountains, and Spangler), two middle schools (Heritage and Trail Ridge), and one high school (Skyline) in Colorado's St. Vrain Valley School District
Final Sample Sizes:	<ul style="list-style-type: none">Reading (Intervention Group: 150; Comparison Group: 205)Mathematics (Intervention Group: 227; Comparison Group: 271)
Intervention Group Characteristics:	<ul style="list-style-type: none">Reading<ul style="list-style-type: none">Free/Reduced Price Lunch: 58.6%Black: 0.0%Hispanic: 93.4%White: 5.3%Other: 1.3%IEP: 5.3%Mathematics<ul style="list-style-type: none">Free/Reduced Price Lunch: 58.6%Black: 1.3%Hispanic: 58.6%White: 39.2%Other: 0.9%IEP: 5.3%

⁴ These data reflect only the evaluation sample in the impact study, not the entire population served.

Comparison Group Characteristics

- Reading
 - Free/Reduced Price Lunch: 44.6%
 - Black: 1.5%
 - Hispanic: 54.5%
 - White: 42.0%
 - Other: 2.0%
 - IEP: 11.0%
- Mathematics
 - Free/Reduced Price Lunch: 44.6%
 - Black: 1.1%
 - Hispanic: 39.9%
 - White: 55.4%
 - Other: 3.7%
- IEP: 11.0%

Data Sources:

- Student assessments
- District records

Key Measures:

- Student achievement in reading and mathematics - Colorado Student Assessment Program (CSAP); Transitional Colorado Assessment Program (TCAP); Phonological Awareness Literacy Screening (PALS)
- Student retention, need for repeated intervention, and graduation rates – district records

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 REVIEW⁵

STUDY	RATING
Not reviewed as of 01/22/2020	N/A

EVIDENCE FOR ESSA REVIEW⁶

STUDY	RATING
Not reviewed as of 01/22/2020	N/A

NATIONAL CENTER ON INTENSIVE INTERVENTIONS REVIEW⁷

STUDY	RATING
Not reviewed as of 01/22/2020	N/A

⁵ <https://ies.ed.gov/ncee/wwc/FWW>

⁶ <https://www.evidenceforessa.org/>

⁷ <https://intensiveintervention.org/>

Investing in Innovation (i3) Grantee Results Summary

Development, 2010-2015

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 \(April 25, 2016\)*](#).