WestEd

RAISE

(Reading Apprenticeship Improving Secondary Education)

DID THE RAISE PROGRAM IMPROVE STUDENT LITERACY IN ENGLISH LANGUAGE ARTS (ELA), HISTORY, AND SCIENCE?

Project Overview

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

American high schools don't often teach literacy in a way that promotes the skills needed to comprehend complex reading materials. Many high school students in the U.S. have significant difficulties reading and understanding complex academic materials, applying critical-thinking skills to what they read, synthesizing information from multiple sources, or relating what they have learned from texts. These students experience continual challenges with academic subjects in high school and college. WestEd's Strategic Literacy Initiative (SLI) started Reading Apprenticeship in 1995 with the goal of helping teachers boost students' reading abilities in specific content areas. Since then, the program has reached over 100,000 teachers across the country at the middle, high school, and college levels. Reading Apprenticeship promotes discipline-specific literacy and learning through social, personal, cognitive, and knowledge-building dimensions of classroom learning culture. Rather than just having teachers provide knowledge to students, the model aims to boost learning via instruction, modeling, and collaborative practice.

THE PROJECT: What Strategies Did the Program Employ?

WestEd received an i3 validation[1] grant from 2010–2015 to scale-up and analyze its Reading Apprenticeship Improving Secondary Education (RAISE) project. Serving 1,964 teachers and roughly 630,000 students from 274 schools in California, Indiana, Michigan, Pennsylvania, and Utah, RAISE promoted the integration of active literacy learning into English language arts (ELA), history, and science classrooms by helping teachers change their instructional practices. The chief purpose of the intervention was to transform academic literacy teaching and learning in core high school subject areas and to build lasting local capacity for literacy instruction in these areas. This project included a randomized controlled trial of 42 schools in California and Pennsylvania, intended to evaluate the effectiveness of RAISE. In addition to investigating whether RAISE impacted student literacy in ELA, history, and science, the study also examined RAISE's effects on student engagement, reading attitudes, and behaviors, as well as its impact on teacher practices and teacher attitudes.

[1] Validation grants provide funding to support the expansion of projects that address persistent education challenges to the regional or national level. 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.

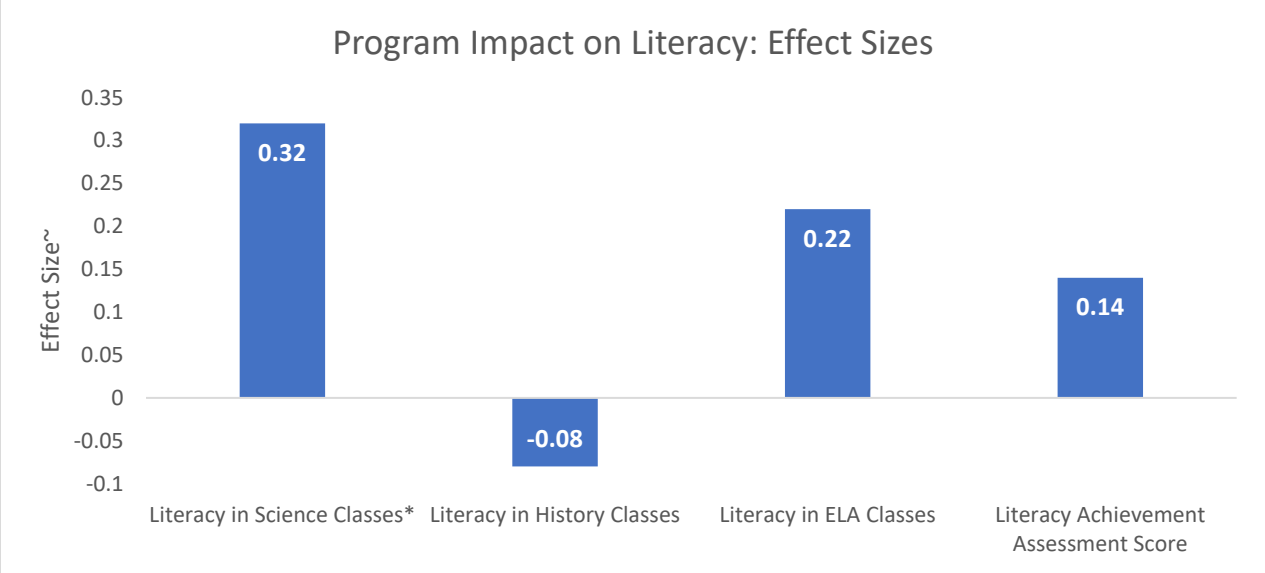
ELA, history, and science, the study also examined RAISE's effects on student engagement, reading attitudes, and behaviors, as well as its impact on teacher practices and teacher attitudes.

THE RAISE MODEL

- **Professional development.** Ninth to 11th grade ELA, science, and history teachers in RAISE schools were offered 10 days (65 hours) of professional development over 12 months: a 5-Day Foundation Institute, a 2-Day Calibration Institute, and a 3-Day Springboard Institute. The professional development activities were focused on disciplinary literacy, collective participation, active learning, coherence, and practices and collaboration that facilitate metacognitive inquiry and conversations. SLI trained and apprenticed 85 professional development facilitators, most of whom were teachers participating in the early RAISE cohorts.
- **Teacher leaders.** SLI staff recruited teacher leaders and tasked them with convening and facilitating monthly team meetings at schools. Teacher leaders were also offered 65 hours of RAISE professional development and attended an additional webinar in the first year of the program, as well as three in-person meetings in the following years of the program.
- **Monthly team meetings.** Teacher leaders convened monthly meetings to promote support and collaboration among RAISE teachers and to discuss RAISE implementation.
- **State coordinators.** State-level RAISE coordinators were also appointed to provide locally knowledgeable support to RAISE teams.
- **School administrator programs and materials.** RAISE school administrators received opportunities to give feedback on the implementation of RAISE and also had a chance to participate in a specialized online course.

Summary of Results

DID THE RAISE PROGRAM IMPROVE STUDENT LITERACY IN ENGLISH LANGUAGE ARTS (ELA), HISTORY, AND SCIENCE?



*Results are statistically significant at the 0.10 level
~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]

The impact findings indicated that RAISE had promising impacts on students' literacy skills:

- **LITERACY IN SCIENCE.** RAISE had statistically significant positive effects on student literacy in science classes, with an effect size of 0.32 and an improvement increase of 12.6 percentage points. In other words, control students in the 50th percentile would move to the 62.6th percentile if exposed to RAISE.
- **LITERACY IN HISTORY**: The program had a negative but statistically insignificant impact on literacy in history achievement for the full sample (effect size of -0.08 and a 3.2 percentage points decrease).
- **LITERACY IN ENGLISH LANGUAGE ARTS**. The program had a positive but statistically insignificant impact on ELA literacy achievement for the full sample (effect size of 0.22, improvement index of 8.7 percentage points).
- **LITERACY ACHIEVEMENT:** The literacy achievement of the full sample of students, shown in literacy achievement assessment score, had a positive but statistically insignificant effect (effect size of 0.14, improvement index of 5.6 percentage points).

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

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

SECONDARY FINDINGS

- **KEY STUDENT SUBGROUPS.** The impact on many subgroups was positive, but not significant: English language learners (effect size of 0.15, improvement index of 6 percentage points), low prior performers (effect size of 0.18, improvement index of 7.1 percentage points), low-income students (0.23 effect size, improvement index of 9.1 percentage points), and non-white students (0.11 effect size, improvement index of 1.6 percentage points).
- **ENGAGEMENT.** RAISE had statistically significant positive effects in two areas for the full sample of students: it increased students' use of comprehension strategies in terms of integration of content and literacy activity (Science: effect size of 0.22, History: 0.21), and it increased their metacognitive inquiry in terms of metacognitive conversations (Science: 0.22, History: 0.30).

OTHER CONSIDERATIONS

The evaluation noted some other points for consideration regarding college readiness.

- **SUPPORT AND ALIGNMENT.** Teachers found that RAISE professional development prepared and supported them during their adoption of new literacy instruction practices. In addition, a significant majority (86%) of RAISE teachers stated that the Reading Apprenticeship program aligned with their content standards and goals in the classroom.
- **COMPETING PRIORITIES AND OTHER CHALLENGES.** Over 60% of teachers reported that competing priorities were the biggest challenge to implementation, particularly preparation for standardized tests. Other challenges included student behavior (reported by 34% of teachers) and student ability (reported by 31% of teachers), with an emphasis on low student motivation.
- **PARTICIPATION.** Participation in professional development across schools varied, and attendance at monthly RAISE team meetings declined from the first to second year of implementation. This pattern of participation may also have limited implementation.
- **MOVING FORWARD: SUBJECT AREA.** The evaluation report suggested that examining the reasons why RAISE had a greater impact in science literacy could yield insights into which modifications in professional development and support might produce similar impacts in ELA and history.
- **MOVING FORWARD: DISTRICT/LOCATION.** Studying how and why RAISE had limited impacts on student achievement in California compared to Pennsylvania may also help the program deal with implementation obstacles in the future and thus enhance its impact.

For More Information

Evaluation Reports	Additional Reports
Final Evaluation Report (IMPAQ International and Empirical Education, 2015)[3]	**RAISE RCT Research Summary** (Empirical Education, 2015) **RAISE Scale-up Research Report** (Empirical Education, 2015) **RAISE Scale-up Research Summary** (Empirical Education, 2015)

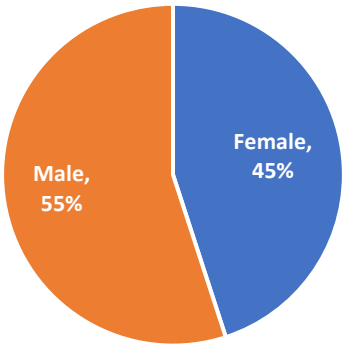
[3] The information and data for this result summary was collected from the most recent report as of 01/23/2020: Empirical Education Inc. (2015, December). *The Impact of the Reading Apprenticeship Improving Secondary Education (RAISE) Project on Academic Literacy in High School: A Report of a Randomized Experiment in Pennsylvania and California Schools*. Retrieved from: https://eric.ed.gov/?id=ED571000

Appendix A: Students Served by the Project[4]

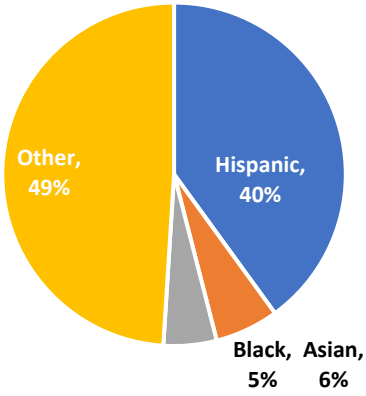
GRADE(S)

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

GENDER



RACE/ETHNICITY



COMMUNITY

Not Reported

HIGH-NEED STUDENTS[i]

Free/Reduced-Price Lunch	English Learners	Students with Disabilities
46%	11%	7%

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

Appendix B: Impact Evaluation Methodology[5]

RESEARCH DESIGN:

Design:	Randomized Controlled Trial
Approach:	▪ Volunteer ELA, history, and science teachers recruited from 42 schools. ▪ Schools subsequently randomly assigned to intervention or comparison groups.
Study Length:	Three years

DATA COLLECTION AND ANALYSIS

Study Setting:	252 teachers of ELA, science, and history across 42 high schools
Final Sample Sizes:	▪ *Intervention Group:* 5,531 students ▪ *Comparison Group*: 4,642 students
Intervention Group Characteristics:	▪ Prior achievement in 11th grade ELA/reading (% proficient schoolwide) in base year – 59% ▪ English language learners – 11% ▪ Special education – 7% ▪ Free/reduced-price lunch – 46% ▪ Asian – 6% ▪ Hispanic – 40% ▪ African American – 5% ▪ Female – 45%
Comparison Group Characteristics	▪ Prior achievement in 11th grade ELA/reading (% proficient schoolwide) in base year – 57% ▪ English language learners – 12% ▪ Special education –13% ▪ Free/reduced-price lunch – 48% ▪ Asian – 10% ▪ Hispanic – 35% ▪ African-American – 5% ▪ Female – 45%
Data Sources:	▪ Surveys: Principals, students, and teachers ▪ Student record data ▪ Student assessments ▪ Professional development observations ▪ Professional development attendance rosters ▪ Classroom observations)

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

Key Measures:

- Attendance (Percentage of enrolled days attended)
- Behavior (Number and percentage of enrolled days suspended or expelled)
- Course performance (Passing grades in ELA, math, social science, and science courses)
- Stability Threshold (Attended over 90% of days enrolled; were never suspended or expelled; did not fail any math, ELA, social studies, or science courses)
- No Early-Warning Indicators(Attended over 85% of days enrolled; suspended or expelled for fewer than three days; did not fail any math or ELA courses)

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[6]

STUDY	RATING
The Impact of the Reading Apprenticeship Improving Secondary Education (RAISE) Project on Academic Literacy in High School: A Report of a Randomized Experiment in Pennsylvania and California Schools https://ies.ed.gov/ncee/wwc/Study/84082	▪ Study meets WWC standards with reservations ▪ No statistically significant positive findings[7]

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

[6] https://ies.ed.gov/ncee/wwc/FWW
[7] For ELA only. WWC did not assess improvements in science literacy.
[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).