



LXDRESEARCH
AT CHARLES RIVER MEDIA

REED Charitable Foundation

Efficacy Study Report, K-2, 2022-2024



Authors:

Rachel Schechter, Ph.D.
Maddie Lee Mason, M.S.
Laura Janakiefski, Ph.D.

NOVEMBER, 2024



LXDRESEARCH
AT CHARLES RIVER MEDIA



PROMISING

LXD Research Recognition for REED
Charitable Foundation



This product has been rigorously evaluated and is hereby acknowledged for meeting the educational impact criteria of the Every Student Succeeds Act (ESSA), warranting a **Level 3** for "**Promising**." This recognition is based on its proven effectiveness in enhancing grade-level learning outcomes.

REVIEWED BY THE LXD RESEARCH EXPERT REVIEW PANEL

Rachel Schechter, Ph.D.
Founder of LXD Research

November 19, 2024

DATE

Educators search for high-quality research and evidence-based interventions to strengthen grant applications, to support comprehensive and targeted schools, or to implement new programming in their schools. Evidence requirements under the Every Student Succeeds Act (ESSA) are designed to ensure that states, districts, and schools can identify programs, practices, products, and policies that work across various populations.

Educational programs document their evidence of design, effectiveness, and impact in order to be eligible for federal funding. While there is no singular authority that determines a program's tier, the Department of Education's Office of Educational Technology provides standards to assess the varying levels of strength of research for education products.

The categories for ESSA Evidence are: strong (Tier 1), moderate (Tier 2), and promising (Tier 3) evidence of effectiveness, or demonstrates a rationale to be effective (Tier 4).

This product meets the requirements for Tier 3:

- ✓ In correlational design, students who used the program are compared to normed referenced samples or other group averages for comparison.
- ✓ Multiple studies with the proper design and implementation with at least two teachers and 30 students show statistically significant, positive findings.
- ✓ The study uses a program implementation that could be replicated.
- ★ A third-party research organization has reviewed the documentation for ESSA validation.



When product designers leverage learning sciences to design and evaluate their programs, educators can better target instruction, and students' skills soar. Through a correlational study design, a statistical evaluation shows that student growth is associated with student product use. This product meets the criteria for LXD Research's ESSA Tier 3 Evidence.

– Rachel Schechter, Ph.D., Founder of LXD Research

EFFICACY STUDY SUMMARY

GRADES K-2

2022-2024



PROGRAM DESCRIPTION

REED Charitable Foundation (RCF) is a non-profit that provides structured literacy training informed by Orton-Gillingham, along with ongoing professional coaching, materials, and implementation support to help all students learn to read. RCF Model Schools are entire schools that receive this comprehensive training and support designed to provide all aspects of structured literacy instruction.

STUDY DETAILS

Sample Description

- 1691 students in grades K-2
- Receiving instruction in an RCF Model School

Time Frame

2022-2023 and 2023-2024

Implementation Description

- School-wide RCF training and implementation support
- Teachers participated in ongoing professional coaching and feedback
- Students received instruction via the RCF materials available in the RCF Resource Drive

Methodology

- T-tests to compare annual growth to national norms on STAR Reading
- Chi-squared tests to compare proportion of students attaining proficiency on STAR Reading

STUDY CONTEXT

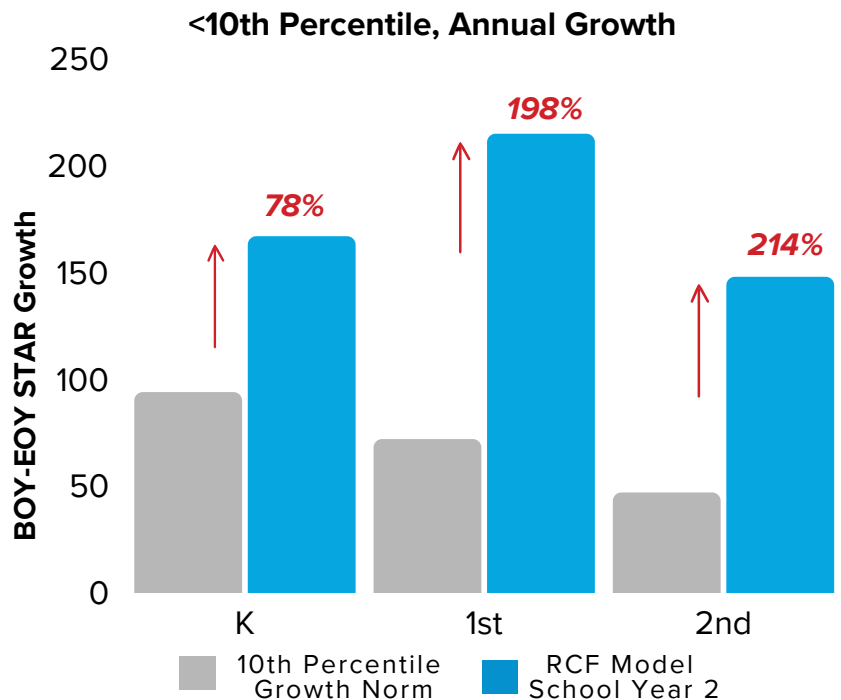
RCF hired LXD Research to evaluate the impact of the RCF Model School approach on students' literacy skill progress and development. The current correlational study evaluates the RCF Model School approach in 3 schools with over 1500 students across two years of implementation, 2022-2023 and 2023-2024. LXD Research analyzed students' performance on the STAR Reading assessments to examine growth and proficiency status across implementation years.

KEY FINDINGS

- Students in Year 2 showed significantly higher growth from BOY to EOY compared to national norms.
- Students showed higher growth and higher proficiency levels in Year 2 than in Year 1.
- In Year 2 of RCF Model School implementation, kindergarteners who started below the 10th percentile exceeded expected growth by 78%, first graders by 198%, and second graders by 214%.



Students starting the year in urgent need of intervention showed annual growth that was up to 3x higher than the national norm



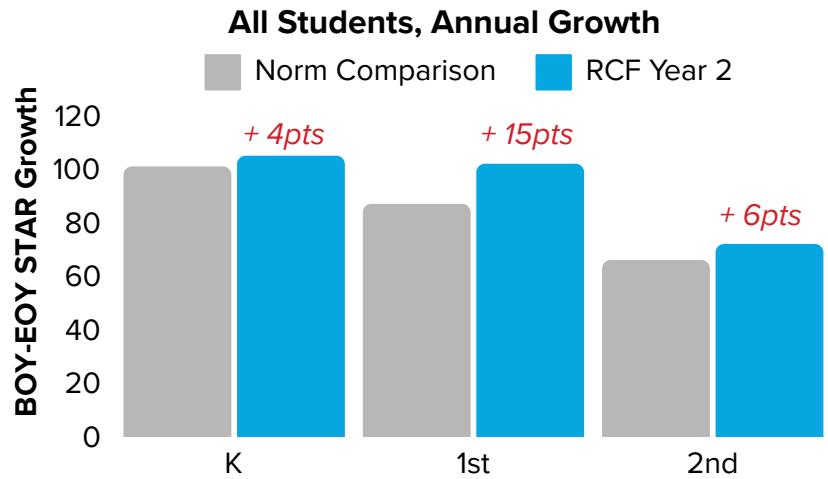
GROWTH COMPARED TO NATIONAL NORMS

The mean annual literacy growth for students in RCF Model Schools was compared to the expected growth according to national norms for students at the 40th percentile STAR proficiency benchmark. Students in Year 2 of RCF Model School implementation demonstrated greater literacy gains when compared to the growth expected at the proficiency benchmark. For inferential comparisons, growth scores were compared to the 2024 norming study means by grade.

Kinder Year 2 vs. STAR Norm, n.s.

1st grade Year 2 vs. STAR Norm: $p < .05$, Cohen's $d = 0.16$

2nd grade Year 2 vs. STAR Norm: $p < .05$, Cohen's $d = 0.16$



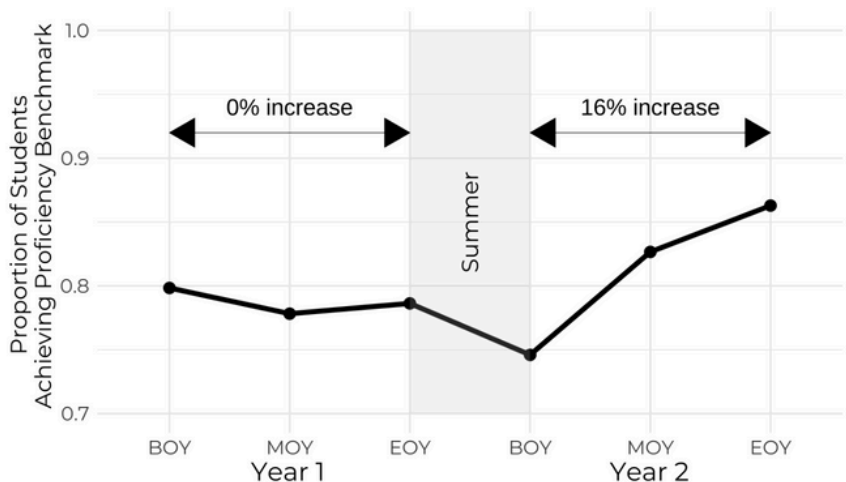
PROFICIENCY BENCHMARK ACHIEVEMENT ACROSS YEARS

A subset of the initial sample ($n = 443$) had STAR scores available for all three time points across both years of RCF implementation. This subset provided the opportunity to follow students longitudinally and examine how students progressed from their first year to their second year in RCF Model Schools. There was a significant increase in proficiency from BOY to EOY in Year 2 compared to Year 1 among students who were in first grade during Year 1 and in second grade during Year 2.

Year 1 vs. Year 2: $t(247) = 3.4$, $p < .001$,

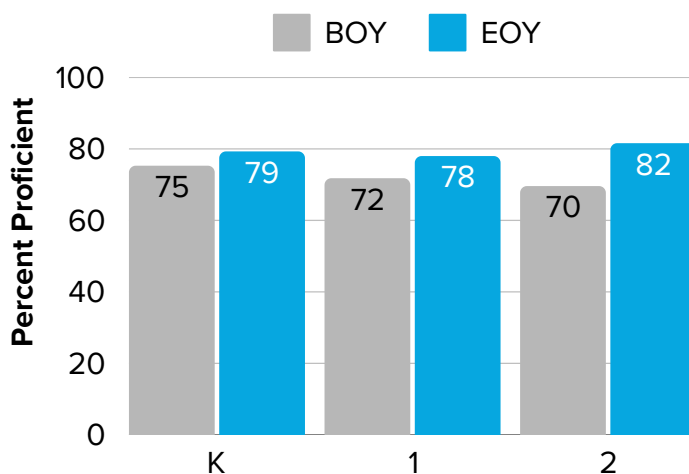
Cohen's d effect size = .43

First Grade Proficiency Status From Year 1 to Year 2



PROFICIENCY BENCHMARK ACHIEVEMENT IN YEAR 2

Proportion of Students Meeting Benchmark in Year 2



To determine whether RCF Model Schools effectively support students in closing reading gaps by bringing them up to grade level, the proportion of students reaching proficiency by the end of the year was assessed. The higher proportion of students meeting benchmark standards in the second year especially highlights how multiple years of implementation can leave a positive impact on student gains.

K: Chi-squared = 45.39, $p < .001$, Phi Coefficient Effect Size = 0.43

1st: Chi-squared = 55.43, $p < .001$, Phi Coefficient Effect Size = 0.48

2nd: Chi-squared = 87.14, $p < .001$, Phi Coefficient Effect Size = 0.54



LXDRESEARCH
AT CHARLES RIVER MEDIA

The Impact of REED Charitable Foundation's Structured Literacy Training on Elementary Literacy Rates

Examining the effect of school-wide structured literacy training and support on K-2 students' state test scores.

Prepared by Rachel L. Schechter, Ph.D., Maddie Lee Mason, M.S., & Laura Janakiefski, Ph.D.
LXD Research

Abstract

The ongoing literacy crisis in the U.S. highlights an urgent need for effective, scalable literacy instruction. REED Charitable Foundation (RCF) is a non-profit organization that provides structured literacy training informed by Orton-Gillingham, along with ongoing professional coaching and comprehensive implementation support to help all students learn to read. RCF Model Schools are whole schools that receive this comprehensive training and implementation support designed to provide all aspects of structured literacy instruction. The current correlational study evaluates the RCF Model School approach in 3 schools with over 1500 students across two years of implementation, 2022-2024. Results demonstrate substantial literacy growth for students in RCF Model Schools, with gains that increase as implementation progresses. Results indicate that first and second graders in Year 2 of implementation achieved literacy growth that significantly exceeded national growth norms, and there was a cumulative impact of multi-year implementation across grades. In addition, more students met or exceeded the proficiency benchmark by the end of the year, with students who started in the lowest percentile ranks making the greatest gains. By fostering an environment of ongoing professional learning and job-embedded support, RCF Model Schools appear to provide the robust support system that teachers need to enhance student achievement year after year.



Table of Contents

Introduction	1
REED Charitable Foundation’s Structured Literacy Training	1
Research Questions	3
Methods	4
Sample Description	4
Measures	4
STAR Unified Scale Scores	4
STAR Percentile Ranks and Proficiency Benchmarks	5
Description of Program Implementation	5
Analysis Plan	6
Results	7
Comparing Literacy Growth in RCF Model Schools to Expected Norms	7
What did growth look like?	7
How did growth compare to national norms?	7
Cohort Comparisons: Year 1 vs. Year 2 of RCF Implementation	8
How did each cohort do?	8
How did grade-level cohorts for Year 1 vs. Year 2 compare?	8
Longitudinal Comparison: Following Students Across Two Years of Implementation	9
What did growth look like for students from one year to the next?	9
How did growth compare when following students from Year 1 to Year 2?	9
Closing Reading Gaps	10
What did proficiency gains look like for students starting below benchmark?	10
How did proficiency levels compare for Year 1 vs. Year 2?	12
Conclusion and Next Steps	14
Discussion	14
Limitations	14
Conclusion & Next Steps	15
References	16



Introduction

The literacy crisis in the U.S. is alarming, with a significant percentage of 4th graders struggling to meet reading proficiency standards. According to the 2019 Nation's Report Card, 66% of the nation's 4th graders were below proficiency level in reading. In 2022, reading scores continued to decline nationwide, reaching their lowest point in three decades (The Nation's Report Card, 2022). Proficiency rates were even lower in Florida, with only 25% of 4th graders in Florida reading proficiently (Brown, 2022). This continued decline in scores poses serious implications both in Florida and nationwide.

Structured literacy that is informed by Orton-Gillingham is a systematic approach designed to support all students in mastering the foundational skills necessary for reading, writing, and spelling, and is necessary for those with learning difficulties such as dyslexia (International Dyslexia Association, 2020). A structured literacy approach emphasizes explicit instruction in phonemic and phonological awareness, helping learners to recognize and manipulate individual sounds in spoken words (Torgesen, 1999). Students need to master these foundational skills for effective reading and spelling, as these skills allow students to break down words into their component sounds and understand how these sounds interact within language. Structured literacy also aids in decoding and helps learners build a strong foundation for understanding the conventions of print (Spear-Swerling, 2019). Structured literacy also goes beyond phonics and decoding, incorporating the study of morphology, syntax, and semantics, which collectively enhance overall language comprehension (Fallon & Katz, 2020; Gauger & Lombardino, 2016).

To address the ongoing literacy crisis, REED Charitable Foundation (RCF), a non-profit organization based in Florida, offers comprehensive, affordable structured literacy training informed by Orton-Gillingham, as well as ongoing implementation support for educators nationwide. RCF's programs focus on developing the background knowledge and teaching skills necessary to deliver personalized, structured, and multisensory literacy instruction. This approach enables students of all ages and learning preferences to access high-quality literacy education and become confident readers, writers, and lifelong learners.

REED Charitable Foundation's Structured Literacy Training

RCF's professional learning options support teachers in delivering a structured literacy approach informed by Orton-Gillingham in their classrooms to effectively support all learners, including those with dyslexia and reading difficulties. Access to high-quality professional learning helps teachers master content, hone their instructional skills, assess student performance, and identify any necessary changes in teaching and learning within their schools (Darling-Hammond et al., 2009). For professional learning to be effective and sustainable, it must be content-focused and thoughtfully incorporate active learning, collaboration, modeling of effective practices, and opportunities for feedback and reflection (Darling-Hammond et al., 2009; Hill et al., 2022). RCF



offers two professional learning pathways to support educators and schools: Individual Professional Learning and a Model School approach.

The two sequential course offerings for RCF Individual Professional Learning provide teachers with training to develop the skills necessary for delivering high-quality structured literacy instruction to all students. RCF Structured Literacy Level 1 helps educators understand the fundamentals of structured literacy, outlining specific procedures for teaching reading and spelling and how to use informal assessments to adjust instruction and meet the needs of their students (Glover, 2017). The course covers essential topics such as phonological and phonemic awareness, phonics and word recognition, fluency, vocabulary, written expression, and comprehension. RCF Structured Literacy Level 2 builds on the first course, with a deeper focus on analyzing formal assessment data to support both teacher and student performance, as well as a deeper focus on vocabulary development, morphology, written expression, and listening and reading comprehension.

To support practical application, educators who complete either training course receive access to the comprehensive RCF Digital Resource Drive, including lesson planning materials such as alphabet and concept posters, sound wall articulation pictures, visual drill card decks, quick guides, templates, visual aid slides, and informal assessments. This content-focused library enables teachers to choose resources that meet their students' needs. Providing these materials and tools alongside comprehensive training ensures consistency in content delivery across different classrooms and minimizes discrepancies in students' learning experiences (Tomlinson, 2014). Additionally, educators who complete either training gain access to a private social media group and free monthly webinars, which aim to foster inter-school collaboration and promote continuous improvement in teaching practices (Krutka & Carpenter, 2016).

The RCF Model School approach is an expanded version of the RCF professional learning courses discussed above, providing entire schools with structured literacy training, ongoing coaching, and comprehensive support for school-wide implementation. By engaging whole schools, RCF Model Schools are intended to establish professional learning communities that help ensure effective and sustainable professional learning for educators (Darling-Hammond et al., 2009; Stoll et al., 2006). A professional learning community helps promote professional growth by fostering a collective sense of responsibility for supporting student learning (Stoll et al., 2006; Raymond et al., 2024; Vescio et al., 2009). Instructional coaching is a key element within these communities, providing ongoing support to help teachers plan, apply, and continually practice using research-based foundational literacy practices (McCollum et al., 2011; Karkar Esperat, 2021; Pacchiano et al., 2016; Sailors & Price, 2010). RCF Model Schools also receive access to additional implementation materials, including a Nessy subscription, Read AI decodable texts through Project Read, a yearly refresher course, and access to RCF's Digital Resource Drive.



The comprehensive Model School approach is intended to provide schools with everything they need to implement effective structured literacy instruction.

Across either professional learning pathway, the training focuses on supporting educators to deliver structured literacy instruction that is effective and motivating, flexible and individualized, incorporates multisensory methods, and ultimately fosters reading fluency. The current study focuses on evaluating the effectiveness of the RCF Model School approach in 3 schools across two years of implementation, 2022-2023 and 2023-2024. RCF partnered with LXD Research as an independent, third-party research firm to conduct an efficacy study of the impact of the RCF Model School approach. The main focus of this study is to track growth across years of implementation in a correlational study design.

Research Questions

1. What are the patterns of student growth in STAR reading scores and benchmark attainment within the sample of RCF Model Schools, and how does the observed growth compare to the expected growth norms?
2. Comparing cohorts of each grade level K-2, do students in a given grade level in the second year of school-wide implementation show greater gains or more students on benchmark than students from the previous cohort during the first year of implementation (e.g., grade K in 2022-2023 vs. grade K in 2023-2024)?
3. Following students across time, does the second year of RCF implementation lead to greater gains or more students on benchmark than the first year (e.g., grade K in 2022-2023 vs. grade 1 in 2023-2024)?
4. Do RCF Model Schools provide the necessary support to close gaps for students who are behind in reading? For the students who are farthest below grade level, do RCF Model Schools help them catch up? At what rate/by how much?



Methods

Sample Description

The sample for this study includes students from three elementary schools in Florida. The study focuses on kindergarten through second grade (K-2) students during the 2022-2023 and 2023-2024 school years, during which these schools served as RCF Model Schools. As part of this implementation, RCF provided professional learning courses in structured literacy for all K-2 educators and administrators in the schools as well as comprehensive coaching, modeling, and lesson support throughout both years.

A total of 1,691 students in the sample had at least one test score available to analyze in the 2022-2023 and 2023-2024 school years. In the 2022-2023 school year, the sample includes 243 kindergarten students, 292 first-grade students, and 280 second-grade students, for a total of 815 students. For the 2023-2024 school year, the sample includes 285 kindergarten students, 272 first-grade students, and 319 second-grade students, totaling 876 students.

Demographic information at the student level was available for a subset of the students. Among these, 46% identified as White, 29% as Hispanic, 15% as African American, and 3% as Asian, while 7% identified as Multiracial or Other. Additionally, 13% of the total student sample were reported as being on free or reduced lunch, 7% were receiving an education plan, and 8% were reported as having a disability. For reference, Table 1 below presents the school-level demographic information for the 3 participating schools, as reported by US News, to reflect characteristics of the participating schools.

Table 1. School-level demographic information as reported by US News

School	Minority Enrollment	Economically Disadvantaged	School Size
School A	77%	55%	493
School B	37%	23%	537
School C	55%	39%	782

Measures

STAR Unified Scale Scores

The STAR Early Literacy and STAR Reading assessments, developed by Renaissance Learning, were administered to evaluate students' literacy skills across grades K-2. The [STAR assessments](#)



are used in all 50 states in more than 34,000 schools and districts. These assessments are part of Florida's ELA Progress Monitoring system, known as the Florida Assessment of Student Thinking (FAST). FAST utilizes Renaissance Learning's STAR assessments to monitor literacy progress throughout the school year.

The STAR assessments measure various early literacy and reading skills, including phonemic awareness, phonics, vocabulary, and reading comprehension. In kindergarten and first grade, students typically complete the STAR Early Literacy assessment, while second graders or students who surpass a predetermined threshold on the Early Literacy assessment transition to the STAR Reading assessment. Both assessments are scored on a single Unified Scale ranging from 200 to 1400, which allows for meaningful comparisons of literacy skills across all students, without regard for which test was taken. These assessments were administered at three different time points during the school year: Beginning of Year (BOY) in the fall, Middle of Year (MOY) in the winter, and End of Year (EOY) in the spring.

STAR Percentile Ranks and Proficiency Benchmarks

As part of the analysis in this study, STAR Unified Scale scores were translated into percentile ranks using Renaissance Learning's score definitions ([percentile ranks with benchmark cut scores](#)). Percentile ranks are values that indicate a student's achievement relative to grade-level normed expectations at each time point. Renaissance Learning identifies the 10th, 25th, and 40th percentile rank as notable student benchmarks. It is suggested that students below the 25th percentile may require instructional intervention, and students below the 10th percentile require urgent intervention. A percentile rank of 40 is used as a proficiency benchmark, meaning students who score at or above the 40th percentile are likely to meet the performance targets set by state or local standards for the end of the year. Together, percentile ranks and proficiency benchmarks allow for a more detailed analysis of student progress and facilitate comprehensive comparisons of performance across cohorts and time points.

Description of Program Implementation

REED Charitable Foundation was implemented in three schools according to RCF's Model School approach, which involves the provision of professional learning courses in structured literacy for all K-2 educators in the schools, as well as lesson materials, and comprehensive and sustained coaching, modeling, and lesson support throughout the school year. All three schools became RCF Model Schools in the 2022-2023 school year and continued into the 2023-2024 school year, meaning that results from the first year of implementation ('Year 1') can be compared to results from the second year of implementation ('Year 2') to determine any compounding effects of continued implementation. After the data was collected, all schools included in the study plan to continue implementing RCF training and materials.



Analysis Plan

Student literacy achievement was assessed on a continuous scale using the STAR Unified Scale scores and on a binary scale using the 40th percentile proficiency benchmark. To determine percentile proficiency, the STAR Unified Scale scores were translated and grouped into percentile rank categories, ranging from below the 10th percentile to the 90th percentile and above. The analysis focused on grades K-2 for Year 1 and Year 2 of RCF Model School implementation, evaluating students' STAR achievement trajectory across each year.

Descriptive statistics and visualizations are included to illustrate the achievement growth patterns across each grade level and school year. These visualizations reflect how STAR Unified Scale scores increased over time and how the proportion of students achieving proficiency evolved throughout each grade level and school year. Grade-level norms were incorporated into these visualizations to contextualize student achievement in RCF Model Schools, facilitating comparison between the two school years and against national standards.

To address the first research question, students' literacy growth from BOY to EOY in the RCF Model Schools was compared to the mean growth demonstrated in each grade level in Renaissance Learning's 2024 US norm sample. The 40th percentile benchmark provides a useful basis for descriptive comparisons. Renaissance Learning provides mean test scores for each grade level in the 2024 STAR norm sample, which includes standard deviations, which were used to conduct inferential comparisons.

To investigate the second research question, a cohort comparison between school years was performed using Chi-Squared tests (χ^2) and ANOVA to examine differences in STAR achievement growth for Year 1 and Year 2 of RCF Model School implementation at each grade level. Chi-squared tests comparing proficiency benchmark achievement between years provide insight into how RCF Model Schools may contribute to closing the gap for students behind in reading.

For the third research question, a longitudinal analysis followed a subset of students with available data to understand their experience in Year 1 compared to Year 2 (e.g., kindergarteners in Year 1 who also had available data when they became first graders in Year 2). This approach directly compared literacy growth trajectories for these students in RCF Model Schools across two years.

Literacy growth from BOY to EOY was further evaluated based on BOY percentile rank categories to determine whether certain groups of students demonstrated distinct growth patterns depending on their initial achievement levels. These analyses highlighted the need for a closer examination of students consistently below the 10th percentile rank across all grades and years. Addressing the fourth research question, analyses investigated how RCF Model Schools may have supported students farthest below grade level.



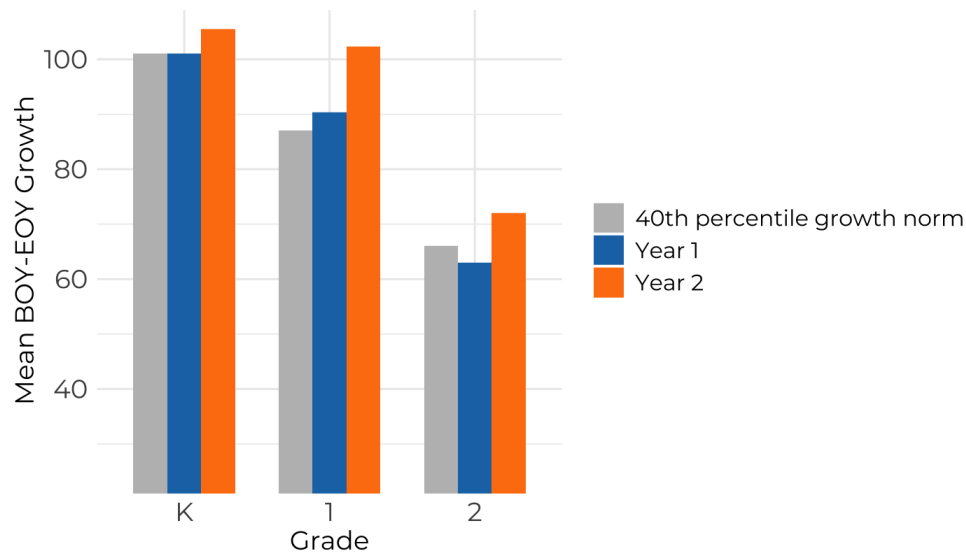
Results

Comparing Literacy Growth in RCF Model Schools to Expected Norms

What did growth look like?

The mean annual literacy growth for students in RCF Model Schools was compared to the expected growth according to national norms for students at the 40th percentile STAR proficiency benchmark. As shown in Figure 1, students in Year 2 of RCF Model School implementation demonstrated greater literacy gains when compared to the growth expected at the proficiency benchmark.

Figure 1. Mean Literacy Growth Compared to National Growth Norms



How did growth compare to national norms?

To determine whether there was a significant difference in annual literacy growth between students attending an RCF Model School and expected norms, t-tests were performed for each grade/year combination, comparing RCF student growth to Renaissance Learning’s 2024 U.S. norm sample. Results showed that first graders during Year 2 of RCF Model School implementation grew 102 points from BOY to EOY, which was significantly higher than the 2024 STAR norm growth of 93 points ($p < .05$, Cohen’s d effect size = .16). Similarly, second graders during Year 2 of RCF Model School implementation (2023-2024) grew 72 points from BOY to EOY, which significantly exceeded the growth observed in the 2024 STAR norms of 63 points ($p < .01$, Cohen’s d effect size = .16). However, during Year 1 of RCF Model School implementation, first and second graders’ growth was similar to the observed growth in the 2024 STAR norm sample ($p = .440$ and $p = 1.00$, respectively). In addition, the literacy growth for kindergarteners in the



STAR norm sample was significantly higher than the growth observed among kindergarteners in both Year 1 and Year 2 of RCF Model School implementation ($p < .01$ and $p < .05$, respectively).

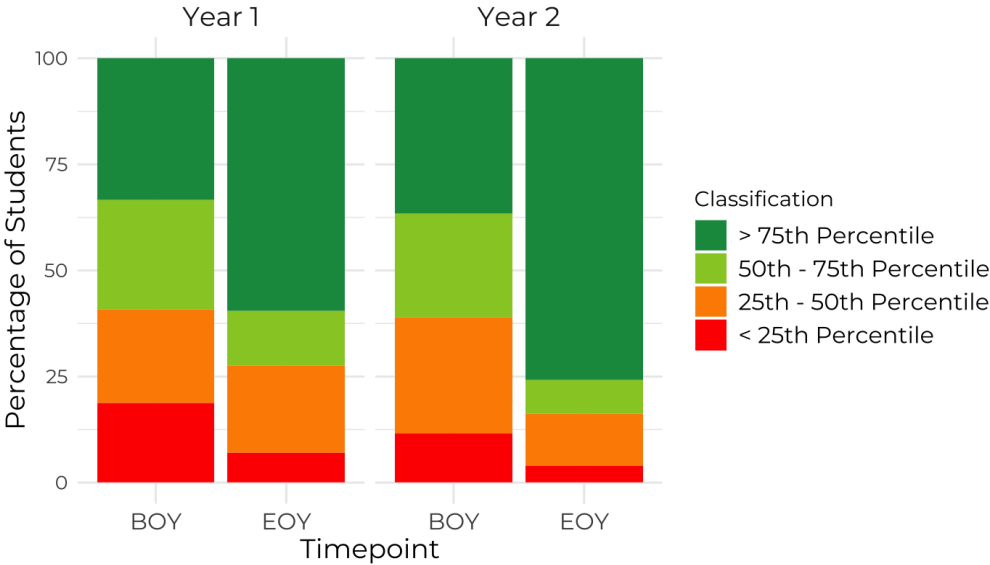
Cohort Comparisons: Year 1 vs. Year 2 of RCF Implementation

How did each cohort do?

To assess differences in literacy gains between the first and second years of RCF implementation in model schools, STAR growth from BOY to EOY was considered for each year of implementation. Descriptive results indicate that annual STAR literacy growth was higher in Year 2 than Year 1 across all K-2 grade levels, as illustrated in Figure 1.

To further understand how RCF Model Schools impact literacy skill development within and across each year, it is helpful to examine how many students fall into each percentile rank category over time. Figure 2 provides an example of this, showing a distribution of second graders in each proficiency classification at BOY and EOY for both years of RCF Model School implementation. As previously mentioned, students below the 25th percentile are identified as needing intervention to meet performance targets by the end of the year. This figure highlights points where the RCF Model School approach may have contributed the most to reducing the number of students requiring intervention.

Figure 2. Percentile Ranks for Second Grade Students at BOY and EOY



How did grade-level cohorts for Year 1 vs. Year 2 compare?

Gains in reading proficiency between Year 1 and Year 2 of RCF Model School implementation were examined by comparing STAR growth between years as well as the percentage of students



meeting or exceeding the proficiency benchmark at the end of each school year. These differences were statistically significant among first-grade students, who showed greater growth in Year 2 (102 point gain) than the previous cohort of first grade students during the Year 1 of RCF Model School implementation (90 point gain), a difference of 12 points; $t(501) = 2.0, p < .05$, Cohen's d effect size = .18. STAR annual literacy growth was not significantly different between Year 1 and Year 2 for kindergarteners and second graders ($p = .463$ and $p = .068$, respectively).

When considering proficiency achievement, significantly more second graders reached the proficiency benchmark by the end of Year 2 (81.8%) than by the end of Year 1 (69.6%); $\chi^2(1) = 10.8, p = .001, \phi$ effect size = .14. The proportion of students who reached the proficiency benchmark did not differ significantly between the two years of RCF implementation for both kindergarten and first grade ($p = .704$ and $p = 1.00$, respectively).

Longitudinal Comparison: Following Students Across Two Years of Implementation

What did growth look like for students from one year to the next?

A subset of the initial sample ($n = 443$) had STAR scores available for all three time points across both years of RCF implementation. This subset provided the opportunity to follow students longitudinally and examine how students progressed from their first year to their second year in RCF Model Schools. Figures 3 and 4 show that students consistently maintained average STAR scores above the expected proficiency levels over the two years of RCF implementation.

Figure 3. STAR Unified Scale scores for Year 1 Kindergartners and Year 2 First Graders

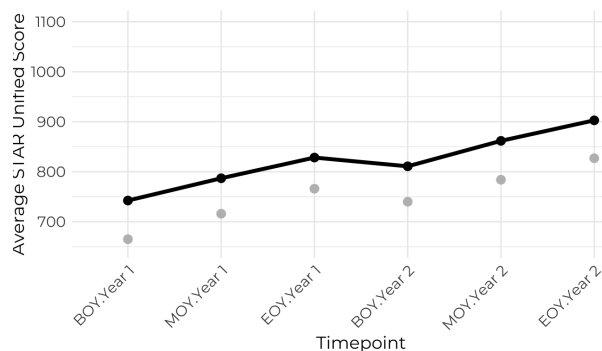
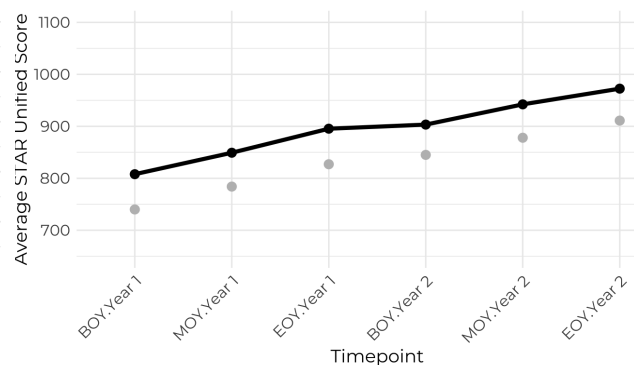


Figure 4. STAR Unified Scale scores for Year 1 First Graders and Year 2 Second Graders



Note. The gray dot reflects the expected STAR Unified Scale score for students who reached the proficiency benchmark (40th percentile rank).

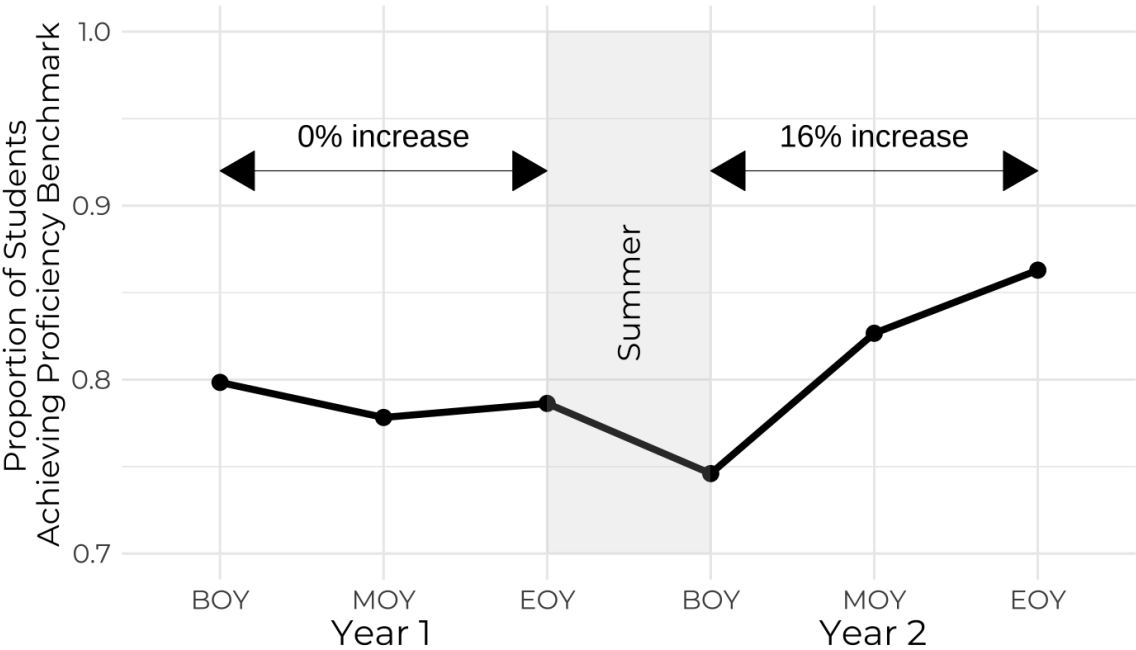
How did growth compare when following students from Year 1 to Year 2?

To assess the potential cumulative effects of the RCF Model Schools on this subset of students, the change in the proportion of students achieving the proficiency benchmark from BOY to EOY



was compared across years. There was a significant increase in proficiency from BOY to EOY in Year 2 compared to Year 1, specifically among students who were in first grade during Year 1 and in second grade during Year 2; $t(247) = 3.4, p < .001$, Cohen's d effect size = .43. Figure 5 below illustrates this cumulative effect. In Year 2, 16% more students achieved the proficiency benchmark from BOY to EOY, whereas there was no increase in Year 1. No significant difference was observed between students who were in kindergarten during Year 1 and moved to first grade during Year 2 ($p = .219$).

Figure 5. Proficiency Benchmark Achievement: 1st Grade (Year 1) to 2nd Grade (Year 2)



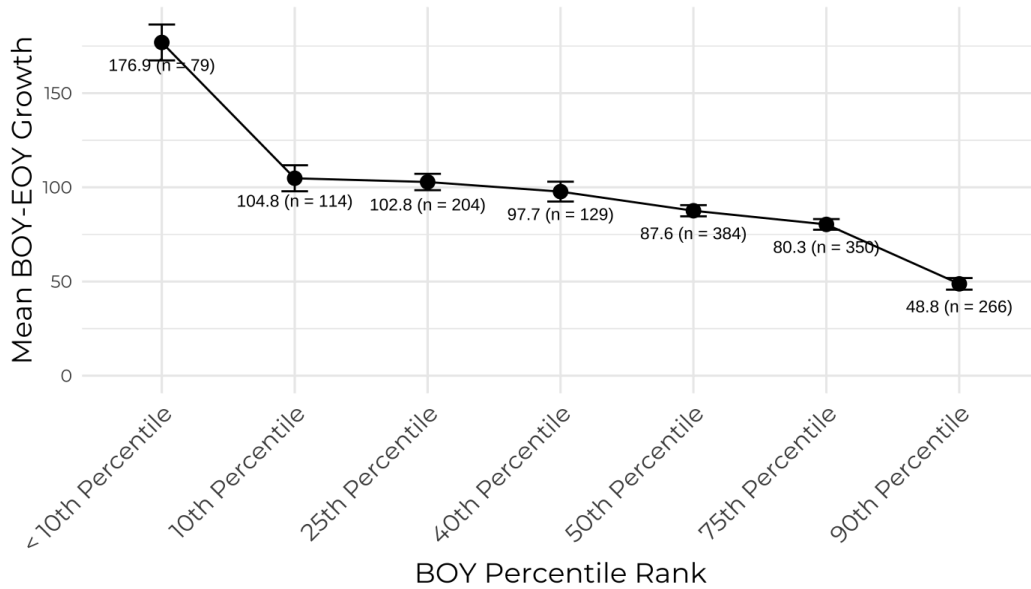
Closing Reading Gaps

What did proficiency gains look like for students starting below benchmark?

RCF Model Schools are intended to support all students, which includes struggling readers, with the aim that its implementation will help close reading gaps. To understand how RCF Model Schools support students in closing reading gaps, how much students grew based on where they started at the beginning of the year was analyzed.

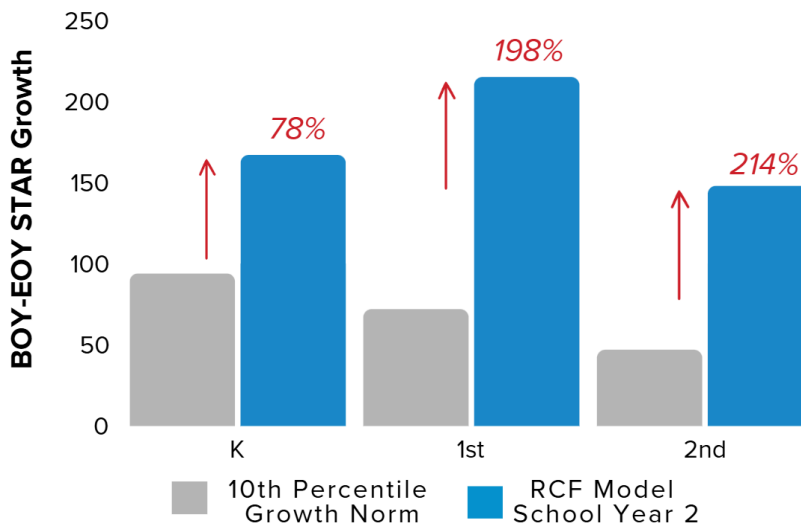


Figure 6. Mean Growth for Each BOY Percentile Rank Categorization



Students in the lowest percentile ranks demonstrated more literacy growth than their peers who started the school year in higher percentile ranks (Figure 6). In addition, these initially struggling students consistently exceeded the expected growth norms for students at or below the 10th percentile set by Renaissance Learning by large margins. With RCF support, students starting the year in urgent need of literacy intervention showed annual growth that was up to three times higher than the national growth norm for a student in the 10th percentile. In Year 2 of RCF Model School implementation, kindergarteners who started below the 10th percentile exceeded expected growth by 78%, first graders by 198%, and second graders by 214% (Figure 7).

Figure 7. Literacy Growth during RCF Year 2 for students starting below the 10th percentile rank

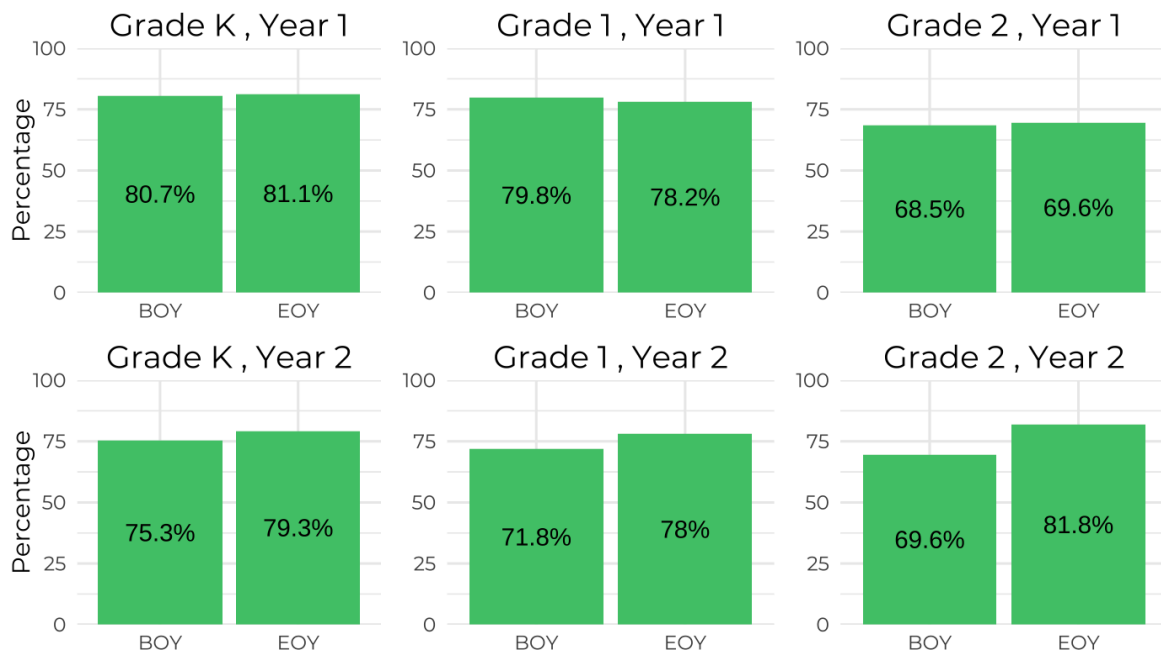




How did proficiency levels compare for Year 1 vs. Year 2?

To determine whether RCF Model Schools effectively support students in closing reading gaps by bringing them up to grade level, the proportion of students reaching proficiency by the end of the year was assessed. Specifically, the proportion of students at or above the 40th percentile benchmark was compared from BOY to EOY for each grade level and year using Chi-squared tests. The proportion of students meeting benchmark across Year 1 and Year 2 for each grade level is displayed in Figure 8.

Figure 8. Proportion of Students Meeting Benchmark Across Year 1 and Year 2.



In all but one comparison, a significantly higher proportion of students met or exceeded the 40th percentile benchmark at EOY compared to BOY (Table 2). More kindergarteners and second graders met or exceeded benchmark by the end of the year for both Year 1 and Year 2. More first graders during Year 2 also met or exceeded benchmark by the end of the year. First graders during Year 1 were the only exception, showing the opposite pattern.

The higher proportion of students meeting benchmark standards in the second year especially highlights how multiple years of implementation can leave a positive impact on student gains. Having a larger percentage of students meeting proficiency benchmark standards at the end of the year suggests that RCF Model School implementation helps students close reading gaps and reduce additional intervention needs.



Table 2. Chi-square tests for each grade and year combination

Grade	Year	Sample Size	Chi-Squared	p-value	Phi Coefficient Effect Size
Kinder	Year 1	212	43.06	< .001	0.45
Kinder	Year 2	251	45.39	< .001	0.43
1st	Year 1	262	35.44	< .001	0.37
1st	Year 2	241	55.43	< .001	0.48
2nd	Year 1	257	98.10	< .001	0.62
2nd	Year 2	303	87.14	< .001	0.54



Conclusion and Next Steps

Discussion

The ongoing literacy crisis in the U.S., especially in states like Florida, highlights an urgent need for effective, scalable literacy instruction. RCF has responded to this crisis by implementing structured literacy training informed by Orton-Gillingham to equip educators with the skills and resources to provide high-quality, systematic instruction to all students, especially those with learning difficulties. This correlational study evaluates the impact of RCF's Model School approach, demonstrating substantial literacy growth across diverse student abilities, with gains that increase as implementation progresses.

The results of this study indicate that first and second graders in Year 2 of RCF Model School implementation achieved literacy growth rates that significantly exceeded national STAR growth norms. These findings suggest that the RCF Model School's structured literacy approach helps build stronger foundational literacy skills, helping students make progress beyond typical growth expectations. Further, a comparison across the consecutive years of RCF implementation underscores the model's cumulative impact. Students in Grades K-2 showed greater literacy growth in the second year of implementation compared to the first, with first graders making significant gains in literacy scores and second graders reaching proficiency benchmarks at significantly higher rates. This year-over-year increase in literacy growth highlights how continued structured literacy instruction and sustained coaching support can amplify student outcomes over time.

Moreover, RCF Model Schools appear adept at closing literacy gaps, especially for students starting the year below proficiency standards. Students in the lowest percentile rank at the beginning of the year showed significantly greater literacy growth by EOY than those in higher percentile ranks. Further, all but one grade and year combination showed a significant increase in the proportion of students meeting or exceeding the 40th percentile proficiency benchmark from BOY to EOY. This finding supports the potential of RCF Model Schools to uplift struggling readers, allowing students who typically require additional intervention to achieve gains that surpass standard growth norms and potentially reduce intervention needs overall.

Limitations

The current study is correlational, investigating how more months and years of implementing a comprehensive literacy training is associated with changes in student literacy scores. This design limits the ability to establish a causal link between RCF Model School implementation and literacy growth. Without a control or comparison group from a similar school district, there may have been other factors, such as teacher experience or school resources, that played a role in the current results. Additionally, the lack of random assignment to the RCF Model School approach may have



influenced the observed outcomes. These schools chose to implement RCF's training and to continue with it over multiple years. Future research could incorporate a matched control group or a randomized controlled trial design to build on this correlational study and provide stronger empirical evidence of the positive impact that RCF Model Schools have on student literacy success. In addition, continuing the Model School approach across multiple years would allow for further analysis. Qualitative data from teachers and students could also deepen the understanding of how specific components of the RCF Model Schools contribute to literacy outcomes and what aspects of implementation teachers find to be especially valuable.

Conclusion & Next Steps

These results demonstrate the potential of RCF Model Schools as an effective approach to early literacy education. While further research is needed to establish evidence in more tightly controlled settings, this study provides promising evidence that becoming an RCF Model School can serve as a powerful approach for supporting all students on their literacy journey and reducing the need for intensive interventions. By fostering an environment of ongoing professional learning and feedback, RCF Model Schools may provide the robust support system that teachers need to enhance student achievement year after year. Reducing the need for intensive interventions can also place less strain on school resources and reduce overall costs for schools and districts. Future work will incorporate a more controlled quasi-experimental or experimental design, as well as qualitative surveys or interviews to supplement the results for a more comprehensive look at the effect of RCF Model School implementation.



References

- Brown, D. J. (2022). Florida's Alarming Reading Scores: Third-Grade Test Shows Only 1 in 4 Proficient. The 74 Million.
<https://www.the74million.org/article/troubling-florida-test-scores-about-25-of-3rd-graders-read-proficiently/>
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the United States and Abroad. Washington, DC: National Staff Development Council, 12(10).
- Fallon, K. A., & Katz, L. A. (2020). Structured literacy intervention for students with dyslexia: Focus on growing morphological skills. *Language, Speech, and Hearing Services in Schools*, 51(2), 336-344. https://doi.org/10.1044/2019_LSHSS-19-00019
- Gauger, L. M., & Lombardino, L. J. (2016). A description of dyslexia and profiles of children with reading disabilities. *eHearsay*, 1(6), 4-27.
<https://www.ohioslha.org/wp-content/uploads/2016/10/eHearsay2015Dyslexia.pdf#page=5>
- Glover, T. A. (2017). A data-driven coaching model used to promote students' response to early reading intervention. *Theory Into Practice*, 56(1), 13–20.
<https://doi.org/10.1080/00405841.2016.1260401>
- Hill, H., Papay, J. P., & Schwartz, N. (2022). Dispelling the myths: What the research says about teacher professional learning. *Research Partnership for Professional Learning*, 1-10.
- International Dyslexia Association. (2020). *Structured literacy: Effective instruction for students with dyslexia and related reading difficulties*.
<https://dyslexiaida.org/structured-literacy-effective-instruction-for-students-with-dyslexia-and-related-reading-difficulties/>
- Karkar Esperat, T. M. (2021). Literacy instructional coaching for inservice teachers through a community-engaged partnership. *International Journal of Mentoring and Coaching in Education*, 11(1), 14-34. <https://doi.org/10.1108/ijmce-10-2020-0062>
- Krutka, D. G., & Carpenter, J. P. (2016). Participatory learning through social media: How and why social studies educators use Twitter. *Contemporary Issues in Technology and Teacher Education*, 16(1), 38-59
- McCollum, J. A., Hemmeter, M. L., & Hsieh, W.-Y. (2011). Coaching Teachers for Emergent Literacy Instruction Using Performance-Based Feedback. *Topics in Early Childhood Special Education*, 33(1), 28–37. <https://doi.org/10.1177/0271121411431003>
- Pacchiano, D., Klein, R., and Hawley, M.S. (2016). *Job-Embedded Professional Learning Essential to Improving Teaching and Learning in Early Education*. Ounce of Prevention Fund.
https://www.startearly.org/app/uploads/2020/09/PUBLICATION_Job-Embedded-Professional-Learning-Essential-To-Improving-Teaching-and-Learning-in-Early-Education.pdf
- Raymond, K., George, R., Cadez, R., Follows, M., Neveux, N., Hipfner-Boucher, K., Genesee, F., & Chen, X. (2024). A School-Based Professional Learning Community Improving Equity and



- Inclusion for At-Risk Readers in French Immersion. *Canadian Journal of Applied Linguistics*, 27(1), 1-23. <https://doi.org/10.37213/cjal.2024.33252>
- Sailors, M., & Price, Larry R. (2010). Professional Development That Supports the Teaching of Cognitive Reading Strategy Instruction. *The Elementary School Journal*, 110(3), 301–322. <https://doi.org/10.1086/648980>
- Spear-Swerling, L. (2019). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. *Teaching Exceptional Children*, 51(3), 201-211. <https://doi.org/10.1177/0040059917750160>
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, 7(4), 221-258.
- The Nation's Report Card. (2022). NAEP reading: National achievement-level results. Nationsreportcard.gov. <https://www.nationsreportcard.gov/reading/nation/achievement/?grade=4>
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners*. ASCD.
- Torgesen, J. K., Wagner, R. K., Rashotte, C. A., Rose, E., Lindamood, P., Conway, T., & Garvan, C. (1999). Preventing reading failure in young children with phonological processing disabilities: Group and individual responses to instruction. *Journal of Educational Psychology*, 91(4), 579–593. <https://doi.org/10.1037/0022-0663.91.4.579>
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91. <https://doi.org/10.1016/j.tate.2007.01.004>



LXD Research is an independent research firm that evaluates educational programs with ESSA-aligned methods.

Learn more at www.lxdresearch.com



For additional information about **REED Charitable Foundation** visit:

www.reedcharitablefoundation.org