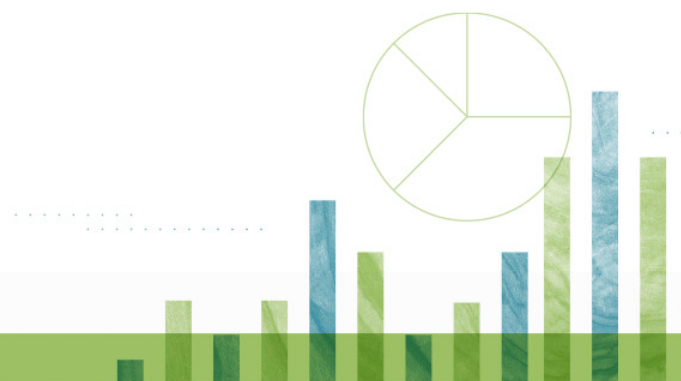




Greenville COUNTY SCHOOLS Research Study

The Impact of *Reading Horizons Discovery*®
on Kindergarten Literacy Outcomes

Greenville County Schools
2022–2023 Academic Year



Where reading momentum begins

INTRODUCTION

During the 2022–2023 academic year, Greenville County Schools in Greenville, South Carolina, implemented the *Reading Horizons Discovery*® (RHD) curriculum, which features the Reading Horizons® (RH) method based on the science of reading, with 1,524 students across 57 kindergarten classrooms.

The RH method delivers engaging, explicit, and systematic phonics instruction through a multisensory approach based on Orton-Gillingham principles. Instruction is cumulative and organized in a sequence that enhances learning and simplifies teaching. Each sound of the English language is explicitly taught along with the letter(s) representing the sound. Five Phonetic Skills are taught to help students recognize short and long vowel patterns in words and syllables. Two Decoding Skills are presented to show students how to decode multisyllabic words.

The multisensory approach used with the RH method enhances learning and memory by simultaneously engaging auditory, visual, and kinesthetic modalities during instruction. A unique marking system is employed to draw student attention to the features and patterns of English and give visual cues for pronunciation. Throughout instruction, students are provided with engaging activities to practice and apply the skills learned. *Reading Horizons Discovery* was designed to teach the RH method to kindergarten to third-grade students. Finally, RH supports districts using its software-embedded assessments (e.g., Spelling and Word Recognition Assessment and Check-Ups) and tools to evaluate the impact of *Reading Horizons Discovery* on student growth.

Greenville County Schools, Reading Horizons, and Learn Platform by Instructure collaborated to evaluate the impact of implementation and student performance as measured by the Reading Horizons Implementation Integrity Rubric (RHIIIR) and FastBridge Composite subscales (published by Illuminate Education), respectively.

Learn Platform by Instructure found that outcomes increased for some schools from the beginning to the end of the year. There were five statistically significant effects of teacher-level

variables on student learning. Of note, implementation integrity of the RH method demonstrated statistically significant results. It showed small to large effects (Cohen's *d* ranged from .21 to .25) on outcomes for some classrooms, controlling for demographics.

METHODOLOGY

PURPOSE

During the 2022–2023 academic year, Greenville County Schools collaborated with Reading Horizons to study the implementation of RH and explore the relationship between the implementation of the RH method and student learning outcomes in kindergarten.

RESEARCH QUESTIONS

1. Was teacher engagement with professional learning associated with student literacy outcomes?
2. Was implementation of RHD associated with student literacy outcomes?

STUDY DESIGN

This study employed a treatment-only study with appropriate statistical controls. Researchers used FastBridge composite scores as student literacy outcomes. Researchers also conducted multi-level models examining whether differences in RHD implementation predicted student outcomes. Researchers used fall 2022 and spring 2023 teacher surveys and classroom observations to investigate professional learning participation and program implementation. Analyses included descriptive statistics, correlations, partial correlations, and multilevel models. Researchers examined RHD implementation and relationships between program implementation, teacher professional learning and knowledge, and student literacy outcomes.

MEASURES

Professional learning participation—Researchers used a teacher survey to assess professional learning participation. Teachers completed the survey in fall 2022 and spring 2023 on their participation in Reading Horizons professional learning and implementation.

Implementation integrity—Researchers used classroom observations of RHD lessons using the Reading Horizons Implementation Integrity Rubric (RHIIR). The rubric contains five indicators that measure implementation integrity across four levels of practice: Emerging, Exploring, Engaging, and Empowering. To measure implementation of the RH method, classroom observation scores across all five indicators of the RHIIR were averaged. A total of **49** teachers had classroom observations. The average teacher observation score was **2.24** (SD = 0.78) on a scale from 1 (“Emerging” instruction) to 4 (“Empowering” instruction). **Twenty-one percent** of teachers had observation scores at or above a three (“Engaging” instruction).

Student performance—Researchers used the FastBridge Composite standardized assessments as the student literacy achievement outcome. The assessment includes overall scale scores for Decodable Words, Letter Sounds, Sight Words, or Word Segmentation.

OVERVIEW OF PROGRAM IMPELNTATION

Greenville County Schools, South Carolina, has fifty-two elementary schools. Sixteen schools, 57 kindergarten teachers, and 1,524 kindergarten students participated in this study. The population is 67 percent White, 17 percent Black or African American, 10 percent Hispanic or Latino, and 3 percent Two or More Races. Approximately 15 percent of families are low-income. During the 2022–2023 school year, Greenville County Public Schools implemented the direct instruction curriculum and software as a pilot in kindergarten. They supported their implementation by offering the Reading Horizons’ in-person professional learning to all teachers and sixty-eight percent of teachers

Ninty-five percent of teachers completed initial training with a RHD-facilitator, while over half participated in one or more coaching days. Over half of the teachers also used self-paced training resources.

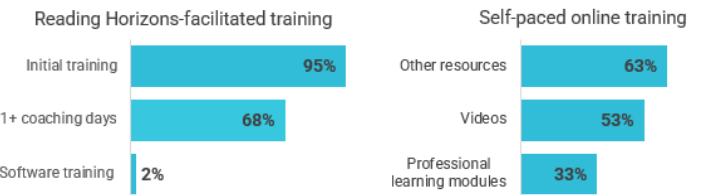


Figure 1. Teacher participation in Reading Horizons professional learning (n = 57)

surveyed participated in a coaching cycle. A typical Tier 1 (full class) lesson occurred in the whole class on a daily basis, for approximately 30 minutes, from August through May.

RESULTS

1. Was school participation in professional learning associated with student literacy outcomes?

Researchers examined how many different professional learning supports educators used during the 2022–2023 school year. The most common support reported was initial training from a RHD facilitator, reported by 95 percent (n = 52) of educators. The next most used supports, participation in Reading Horizons coaching and ‘other’ resources during self-paced online training, were reported by 68 percent and 63 percent of educators respectively (n = 39 and 36). The least common support was software training (2 percent, n = 1; Figure 1).

Participation in RHD-facilitated professional learning was not significantly related to Early Reading Composite scores or the Decodable Words and Sight Words subscales. However, students in schools where teachers completed more Reading Horizons-facilitated professional learning performed better, with moderate effect sizes, on the Letter Sounds and Word Segmentation subscales (p < 0.05; Figure 2).

2. Was implementation of RHD associated with student literacy outcomes?

While controlling for disability status and fall Fastbridge achievement, researchers conducted multilevel regression models to investigate whether implementation of RHD, as measured by a teacher’s average score on the RHIIR was at or above 3.0, was associated with student outcomes, as measured by

Schools whose teachers completed more Reading Horizons facilitated professional learning performed better on spring FastBridge Letter Sounds and Word Segementing subscales.

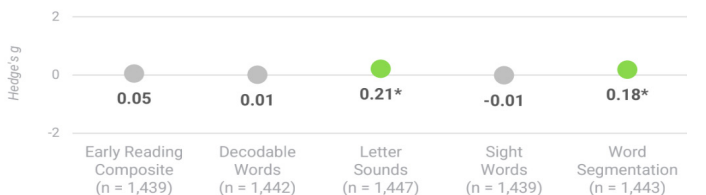


Figure 2. Association between RHD-facilitated school level professional learning participation and FastBridge performance

higher spring FastBridge Composite and subscaled achievement scores. The effect sizes comparing teacher groups, which ranged from small to moderate, are shown in Figure 3. Statistically significant moderate effects of implementation level were identified for the Early Reading Composite ($d = .22$), Decodable Words ($d = .25$), and Letter Sounds ($d = .21$) subscales. This effect size of 0.25 for Decodable Words, for example, means that if a comparison student were placed in a high implementation classroom, they would have been expected to perform 10 percentile rank points higher than they did.

In schools where more teachers received a classroom observation score above 3, students performed better on the Early Reading Composite, Decodable Words, and Letter Sound subscales.

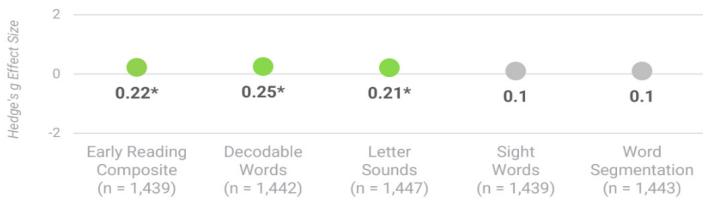


Figure 3. Association between teacher observation scores and school level Fastbridge performance

CONCLUSIONS

Overall, 95 percent of teachers participated in an initial RHD-facilitated training and 68 percent participated in one or more coaching days. Most teachers also used self-paced training resources. Participation in RHD-facilitated or self-paced professional learning was not statistically significant, such that schools whose teachers completed more RHD-facilitated or self-paced professional learning did not have higher Early Reading Composite, Decodable Words, Letter Sounds, Sight Words, or Word Segmentation scores.

Teacher implementation integrity, as measured by an average score of 3.0 or higher on the RHIR, shown statistically significant correlations with the FastBridge Composite score, as well as with the Decodable Words and Letter Sounds subscales, with moderate effect sizes ($d = .22$, $.25$, and $.21$, respectively).

This study provides results to satisfy ESSA evidence requirements for Level III (Promising Evidence) given the study design and positive, statistically significant findings.

