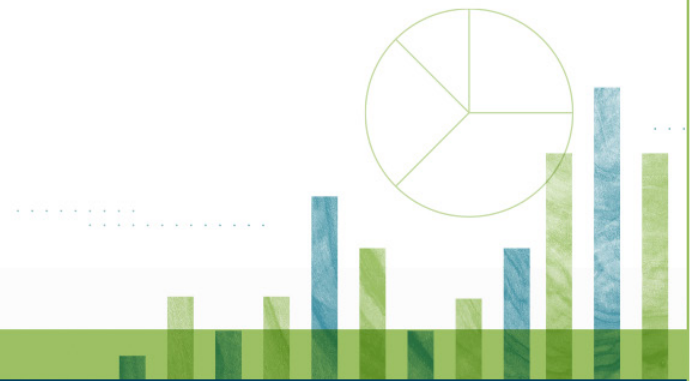




Oklahoma City PUBLIC SCHOOLS Research Study

The Impact of the *Reading Horizons*® Method
Implementation on Student Learning

Oklahoma City Public Schools
2021–2022 Academic Year



Where reading momentum begins

Introduction

During the 2021–2022 academic year, Oklahoma City Public Schools, OK implemented the *Reading Horizons Discovery*® curriculum, which features the Reading Horizons® method based on the science of reading, in 115 classrooms across eight elementary schools in grades K–4.

The Reading Horizons (RH) method delivers engaging, explicit, 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. *RH Discovery* was designed to teach the RH method to students in kindergarten to third grade. Finally, Reading Horizons supports districts using its software-embedded assessments (e.g., Spelling and Word Recognition Assessment and Check-Ups) and tools to evaluate the impact of *RH Discovery* on student growth.

Oklahoma City Public Schools, Reading Horizons, and Elite Research LLC collaborated to evaluate the impact of implementation and student performance as measured by the *Reading Horizons Implementation Integrity Rubric* (RHIRR) and iStation, respectively.

Elite Research, LLC found that outcomes increased from the beginning to the end of the year for all grade levels, and there were 13 statistically significant effects of teacher-level variables on student learning. Of significant note, implementation integrity of the RH method demonstrated small to large effects (Cohen's *d* ranged from .445 to .944) on student performance over the school year for all grades, controlling for demographics.

Methodology

PURPOSE

During the 2021–2022 academic year, Oklahoma City Public 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 grades K–4.

RESEARCH QUESTIONS

The following guiding research questions informed the study design:

1. To what extent do teachers implement RH with integrity, as measured by the RHIRR?
2. How much do students grow as a result of exposure to the RH method throughout the 2021–2022 school year?
3. What is the relationship between teacher implementation of RH and student performance and growth, as measured by the iStation assessment composite scores and the relevant individual subscales?

STUDY DESIGN

This study employed a one-group pre-post quasi-experimental design. Elite conducted a four-level mixed model regression analysis accounting for the nested structure of the data (e.g., repeated measures nested within student, classroom, and school). Analysis was conducted within grade to allow for proper comparisons. A pre to post variable that captured average student performance at the beginning, middle, and end of year assessment points was included in the model. Key demographic covariates included in the models were gender, special education, low socioeconomic status, and race/ethnicity to account for selection bias. To assess the primary research question, the implementation integrity score developed by Reading Horizons (see discussion below), measured at the teacher level, was included in the model and interacted with the pre to post variable. This cross-level interaction was conducted to assess the impact of levels of implementation integrity on the outcome of interest over time. The results were considered statistically significant by the What Works Clearinghouse threshold of a p-value less than five percent ($p < .05$).

MEASURES

Implementation integrity—The RHIR contains five indicators that measure implementation integrity across four levels of practice:

- **Level 1 Emerging:** The educator is still learning about this element or is in the early stage of planning how to do this in the classroom.
- **Level 2 Exploring:** The educator has begun experimenting with this element in the classroom but has yet to form daily habits that directly impact student learning.
- **Level 3 Engaging:** The educator consistently implements this element, has identified lessons learned, and made minor improvements. Consistent practices translate to impacts on student learning.
- **Level 4 Empowering:** The educator can leverage the program’s full intent, making meaningful adaptations that equitably serve all students.

To measure implementation of the RH method, classroom observation scores across all five indicators of the RHIR were averaged, creating three groups of educators whose overall rubric score averages were $X_1 = 1.0$, $X_2 = 2.02$, and $X_3 = 3.6$, respectively. The reliability estimate for the composite rubric scores was adequate and desirable for this type of analysis (scale: 1 to 4; reliability = .854).

Student performance. The *iStation* assessment is a PreK–8th grade, 30-minute assessment that measures 14 reading skills. The subscales used for the analysis included reading comprehension, spelling, text fluency, vocabulary, decoding, letter knowledge, listening comprehension, and phonemic awareness. These subscales were selected given their close alignment with the learning outcomes identified in the *RH Discovery* curriculum.

Overview of Program Implementation

Oklahoma City Public Schools is an urban school district with 57 schools, 2,500 teachers, and 32,000 students. 40 percent of the students are English Language Learners, and 16 percent use an Individualized Educational Plan.

One of Oklahoma City Public Schools’ pillars for literacy is “A literate citizen is someone who has acquired the skills necessary to read text with fluency and automaticity. As foundational and process skills are acquired, fluency and automaticity in the reading of text are fully developed. Foundational and process skills allow for the ability to decode and comprehend a text.”

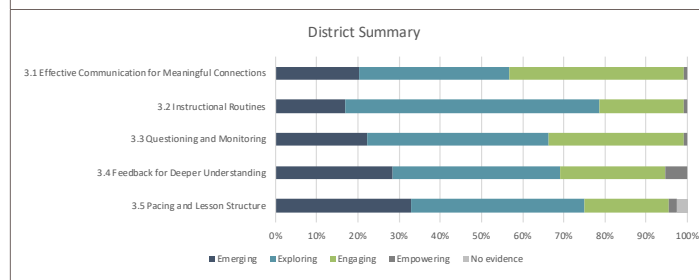
During the 2021–2022 school year, Oklahoma City Public Schools purchased and implemented the direct instruction curriculum and supported their implementation by offering the Reading Horizons’ in-person and virtual professional learning to all teachers. All 32 elementary schools implemented *RH Discovery* in grades K–4 as their Tier 1 phonics curriculum. A typical Tier 1 (full class) lesson occurred whole class on a daily basis, for approximately 30 minutes, from August through June.

Results

Question 1: To what extent do teachers implement RH with integrity, as measured by the RHIR?

Across the 115 classrooms where RH methods were observed, most teachers demonstrated evidence of Exploring or Engaging levels on the progression of practice for each of the five key indicators of implementation integrity.

VISUAL 1



Question 2: How much do students grow due to exposure to the RH method throughout the 2021–2022 school year?

As a result of exposure and teacher use of the RH method, student composite scores across all grade levels increased from pre to post. Student scores for a majority of the individual subscales also increased.

VISUAL 2

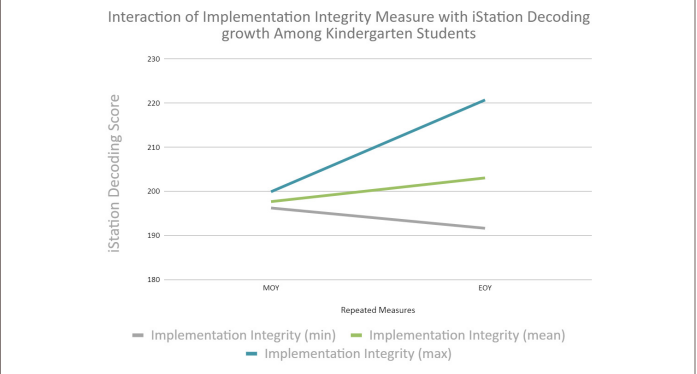
Green indicates statistically significant results, + indicates desirable results, - indicates undesirable results, and N/A indicates no observations were gathered for the particular subscale.

Scale	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Composite Score	+	+	+	+	+
Reading comprehension	N/A	+	+	+	+
Spelling	N/A	+	+	+	+
Text fluency	N/A	N/A	+	+	+
Vocabulary	+	+	+	+	+
Decoding	N/A	+	N/A	N/A	N/A
Letter Knowledge	+	+	+	N/A	N/A
Listening Comprehension	+	N/A	N/A	N/A	N/A
Phonemic Awareness	+	+	N/A	-	N/A

Question 3: What is the relationship between teacher implementation of RH and student growth?

To measure implementation of the RH method, classroom observation scores across all five indicators of the RHIR were averaged, creating three groups of educators whose overall rubric score averages were $X_1 = 1.0$, $X_2 = 2.02$, and $X_3 = 3.6$, respectively. Average student growth from the middle to the end of the year was significantly higher for students in classrooms where teachers scored higher on the rubric than in classrooms where teachers scored lower on the rubric, particularly on the *Decoding* subscale (see Visual 3).

VISUAL 3



Teacher implementation integrity impacted student growth the most in kindergarten and third-grade classrooms:

- For kindergartners, teacher classroom rating impacted decoding ($d = .944$) – a very large effect size. Higher classroom ratings indicated higher outcome scores compared to lower classroom ratings by EOY.
- For third graders, teacher classroom ratings impacted decoding ($d = .445$). Higher classroom ratings indicated higher outcome scores compared to lower classroom ratings by EOY.

Conclusions

Implementation integrity of the RH method, as measured by the classroom observation scores on the RHIR, was statistically significant and showed small to large effects (Cohen’s d ranged from .445 to .944) on outcomes for all grades, controlling for demographics. Substantial effects of observer ratings on decoding scores over time were identified for kindergarten students.

The results of the study exploring the relationship between implementation and outcomes (Research Question 3) demonstrates that the RH method, as implemented via its K–3 literacy solutions, meets the What Works Clearinghouse ESSA Tier 3 requirements – *Promising Evidence*.