

Reading Horizons Discovery®

ESSA Tier 4 Evidence Brief

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This document summarizes how *Reading Horizons Discovery*® meets the Every Student Succeeds Act (ESSA) Level 4 standards: 1) well-defined logic model based on rigorous research, and 2) commitment to ongoing research to study and disseminate impact.

About *Reading Horizons Discovery*®

The *Reading Horizons Discovery*® **program** uses a combination of direct instruction, software, professional learning, and support to prepare teachers to provide reading instruction for beginning and struggling readers that is aligned with the science of reading.

The Reading Horizons **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 or letters that represent 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 Reading Horizons 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 the course of instruction, students are provided with engaging activities for practice and application of the skills learned. *RH Discovery* was designed to teach the Reading Horizons method to students in kindergarten to third grade.

Standard 1 - Well-defined logic model based on rigorous research

Research Support

RH Discovery currently meets the ESSA standards for Tier 4 evidence requirements through a well-defined curriculum design and logic based on rigorous research.

Elements of effective reading instruction as reported by the National Reading Panel (NICHD, 2000) are well established in the literature. Empirical studies confirm that instruction that builds phonemic awareness, decoding skills, text-reading fluency, vocabulary, and comprehension is the best antidote for reading difficulty (Fletcher, Lyon, Fuchs, & Barnes, 2007; Foorman & Moats, 2004). Instruction delivered through the Reading Horizons method not only helps prevent reading difficulty by establishing necessary foundational skills for all learners but also provides a remedy for readers who struggle with the task of decoding. Mastery of the concepts taught in Reading Horizons programs—particularly **phonemic awareness, phonics, and fluency**—empowers students with the ability to successfully decode the great majority of words they encounter in printed text.

Phonemic awareness: Phonemic awareness (PA) is the ability to identify and manipulate phonemes (individual sounds) in spoken words (Liberman, Shankweiler, Fischer, & Carter, 1974) and is one of the best predictors of reading success (Langenberg, 2000; Muter, Hulme, Snowling, & Taylor, 1997; Stuart & Masterson, 1992). Phonemic awareness instruction does not require use of printed words or letters. However, a meta-analysis conducted by Bus and van IJzendoorn (1999) revealed that programs combining graphemes (letters) with phonemes (sounds) during instruction were more effective than phonemic awareness training alone. Phonemic awareness is necessary for all readers to succeed, although it is only a beginning step in learning to read (NICHD, 2000). In the Reading Horizons method, phonemic awareness is addressed before phonics instruction. Seven areas of phonemic awareness (rhyming, syllable counting, initial sounds, blending, final sounds, medial sounds, and segmentation) are addressed, with explicit instruction in the 42 sounds of the English language. As each phoneme (sound) is instructed, the grapheme (letter or letter combination) that represents each sound is explicitly taught, strengthening phonemic awareness and laying the foundation for fluent decoding.

Phonics: Proficient reading is the ability to identify individual words quickly and accurately (Adams, 1990; Ehri, 1998; Perfetti, 1985; Rayner & Pollatsek, 1989; Snow, Burns, & Griffin, 1998). This is sometimes referred to as reading by sight. Mastery of letter-sound correspondences aids in the successful identification of words. Phonics is a method of instruction that teaches students the relationships between written letters and spoken sounds and guides them in how to use this knowledge to fluently read and spell words.

Prevention and intervention studies support the explicit teaching of patterns and rules for successful decoding and spelling as opposed to whole-word memorization (Berninger, 2000; Berninger et al., 2005; Ehri, 2004; Felton, 1993; Foorman, Francis, Beeler, Winikates, & Fletcher, 1997; Scalon & Vellutino, 1996; Torgeson, 2000; Torgeson, Wagner, & Rashotte, 1997). Students who are taught to blend sounds to form words learn letter-sound correspondences more quickly, strengthen phonemic awareness, increase automaticity in word reading, and improve spelling and comprehension skills significantly beyond their chronological ages (Johnston & Watson, 2006).

Phonics instruction is most effective when it is explicitly taught and systematically organized in a sequence that moves from simple to complex (NICHD, 2000). Reading Horizons programs explicitly teach the structures of words in the English language. Each of the 42 sounds in our language is taught sequentially along with the letter or letters that represent that sound. Students are immediately taught to blend sounds to read and spell real and nonsense words. Five Phonetic Skills are taught to help students quickly and accurately read and spell words with short and long vowel patterns. Two Decoding Skills provide students with strategies to decode multisyllabic words. A particular emphasis is placed on

transferring skills to connected text through reading decodable and complex sentences, passages, and books.

Fluency: Fluency is defined as the speed of decoding gained as one masters the alphabetic code (Stanovich, 1980). Phonics instruction initiates the development of decoding ability and word reading accuracy, both of which improve a student's ability to recognize words with automaticity. With practice and repeated exposure to print, fluency develops and improves (NICHD, 2000). When fluency is fully developed, accuracy, rate, and expression function well, and attention can be allocated to comprehension (Wolf & Katzner-Cohen, 2001). Throughout the Reading Horizons program, students are given multiple opportunities to develop reading fluency. As students master the written code of English, they more quickly read and spell a growing number of words. Within each lesson, particular emphasis is placed on transferring skills to connected text through the process of reading and rereading sentences, passages, and books.

Multisensory approach: In a number of research studies, multisensory instruction is proving to be more effective than traditional instruction in the areas of phonemic awareness, decoding skills, and reading comprehension (Carreker et al., 2005; Carreker, Neuhaus, & Swank, 2007; Foorman, Francis, Shaywitz, et al., 1997; Joshi, Dahlgren, & Boulware-Gooden, 2002). In one study on the development of literacy-related skills, second and third graders who received an Orton-Gillingham-based, synthetic phonics (i.e., part-to-whole) approach outperformed children who received a combined synthetic/analytic (i.e., part-to-whole/whole-to-part) phonics approach or a sight-word approach (Foorman, Francis, Beeler, et al., 1997).

Reading Horizons is an Orton-Gillingham-based reading program. Visual, auditory, and kinesthetic-tactile modalities are used simultaneously throughout the instructional sequence. As each letter/sound is introduced, students see it, say it, write it, and pronounce it through the process of dictation. Visual cues are also given as each vowel is taught. As instruction progresses, students continue to participate in dictation by hearing, repeating, writing, and reading each word that is dictated. Kinesthetic responses are also emphasized throughout the process of dictation through actions that focus student attention on what is being taught or practiced. In addition, a unique marking system is employed to engage students and focus their attention on the features and patterns in English and give visual cues for pronunciation.

Conclusion: A converging body of research supports explicit and systematic phonics instruction for all students (Ehri, 2004; McCardle, Chhabra, & Kapinus, 2008; Carreker et al., 2005; Joshi et al., 2002; NICHD, 2000; Ryder, Tunmer, & Greaney, 2007). The National Reading Panel found that phonics instruction is most effective when taught from kindergarten to second grade and builds the foundation for reading success in later grade levels (NICHD, 2000). Both beginning and struggling readers benefit from explicit phonics instruction (Aaron, Joshi, & Quatroche, 2008; Berninger & Wolf, 2009; Birsh, 2005; Fletcher et al., 2007). Such instruction can lead to significant success when intervening with at-risk readers in the early grades (Foorman & Schatschneider, 2003). The logic model below visually depicts how the key design features of *RH Discovery*, as well as key supporting activities, produce the intermediate outcomes for teachers and students, which lead to its long-term impact.

Key Design Features and Activities

- Reading Horizons Discovery® **direct instruction materials** provide teachers with an easy-to-use guide for teaching foundational reading and spelling skills (phonemic awareness, phonics, word recognition, fluency, etc.) using a research-based approach
- Reading Horizons Discovery® **software** provides each student with highly differentiated instruction that can be used to pre-teach or reinforce concepts taught in the corresponding direct instruction materials
- **Support resources** that professional learning days, administrative software, customer service support, and online resources

Intermediate Outcomes

TEACHERS

- Increased **knowledge of teaching practices** in phonemic awareness, phonics, and fluency
- Increased skills in differentiating instruction and managing mastery-based progression

STUDENTS

- Increased engagement in a multisensory learning process
- Increased literacy skills (accuracy, decoding fluency)

Long-Term Impact

- **Increased proficiency** in key reading outcomes:
 - Phonemic awareness
 - Phonics and decoding
 - Comprehension
 - Fluency
- Increased percent of students **“on level” by the end of Grade 3**

To learn more about how the design of *Reading Horizons Discovery* addresses the findings from the National Reading Panel and the corpus of literature at large, please [click here](#).

Standard 2 - Commitment to ongoing research to study and disseminate impact

Commitment to Third-Party Research

***RH Discovery* currently meets the ESSA standards for Tier 4 evidence requirements by establishing a multi-pronged research agenda to evaluate its effectiveness on teacher practice and K–3 student reading proficiency.**

For the 2021–2022 school year, Reading Horizons has commissioned McREL International to conduct two quasi-experimental studies that meet ESSA Tier 2 level requirements, and lead a randomized control study for the 2022–2023 school year that meets ESSA Tier 1 level requirements.

In addition, Reading Horizons sponsors up to six districts per school year to participate in collaborative research to explore the correlation between implementation of *RH Discovery* and student proficiency—a design which meets ESSA Tier 3 level requirements. Reading Horizons works directly with a third-party evaluator and district leaders to select guiding research questions, develop a data collection strategy, and build the district’s capacity to measure implementation. Reading Horizons and the third-party evaluator provide partner districts ongoing data and reports throughout the year to help guide their planning, professional learning, and structural improvements.

Finally, Reading Horizons supports districts to use 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.

Research Opportunities for Districts

Reading Horizons is currently recruiting districts to participate in a variety of studies. These projects help districts better understand the impact of *RH Discovery* on teaching practices and student outcomes in their contexts and help Reading Horizons learn how we can improve our curriculum and professional learning.

Large-Scale Efficacy Research (ESSA Tier 1 Evidence Study)

Reading Horizons sponsors one cluster randomized trial study composed of multiple districts or schools per year. Check out these criteria to see if your district is eligible to participate:

Study Design	Multi-district, randomized design
Adoption Type	<ul style="list-style-type: none">• Year 1 only; no prior student exposure to <i>RH Discovery</i>• Cross-district study; multiple districts can participate
District Size	Minimum of 4 schools: half are assigned to treatment and half are assigned to control groups
Assessment	NWEA MAP Reading Fluency or Dibels only
Registration	Sign up here , or contact Dr. Ashley Hunt at McREL International at ahunt@mcrel.org

Single District Efficacy Research (ESSA Tier 2 Evidence Study)

Reading Horizons sponsors two quasi-experimental studies with individual districts each year. Check out these criteria to see if your district is eligible to participate:

Study Design	Quasi-experimental design
Adoption Type	<ul style="list-style-type: none">• Year 1 only; no prior student exposure to <i>RH Discovery</i>• Partial adoptions only; districts must have a minimum of four K–2 schools using <i>RH Discovery</i> and about 10–12 K–2 schools doing business as usual
District Size	Minimum of 14+ schools within a single district
Assessment	NWEA MAP Reading Fluency or Dibels only
Registration	Contact Dr. Shelby Danks, Chief Impact Officer at Reading Horizons, at shelby.danks@readinghorizons.com

Single District Implementation Research (ESSA Tier 3 Evidence Study)

Reading Horizons sponsors up to six implementation studies with individual districts each year. Check out these criteria to see if your district is eligible to participate:

Study Design	Correlational design
Adoption Type	<ul style="list-style-type: none">• Years 1–3 only
District Size	Minimum of 4 schools using <i>RH Discovery</i>
Assessment	Any aligned and validated third-party assessment
Registration	Contact Dr. Shelby Danks, Chief Impact Officer at Reading Horizons, at shelby.danks@readinghorizons.com

For more information about Reading Horizons' research agenda or activities, please reach out to Dr. Shelby Danks, Chief Impact Officer at Reading Horizons, at shelby.danks@readinghorizons.com.

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