



**ReadingHorizons**

The Foundation for Reading English

# Results

---

Scientifically Based Research Underpinning the Rationales of the *Reading Horizons/Discover Intensive Phonics for Yourself* Reading System

***Elementary Education***  
***Secondary Education***

***Reading Horizons***

60 North Cutler Drive, Suite 101  
North Salt Lake, UT 84054

**P** 800.333.0054

**F** 801.295.7088

[www.ReadingHorizons.com](http://www.ReadingHorizons.com)

[info@readinghorizons.com](mailto:info@readinghorizons.com)



# **Table of Contents**

Table of Contents .....	3
Overview of Competencies .....	4-6
Research on Phonics for Intermediate and Adult Students .....	7-10
No Child Left Behind Criteria .....	11
Program User Data .....	12-20
Iron Springs Elementary School.....	12-13
Huntington Elementary School.....	14
Seattle Hill Elementary School.....	15
Hale Elementary School .....	16
Webster Parish School District .....	17
King County Youth Facility .....	18
Burlington Edison High School .....	19
Granite High School .....	20
Other Current Findings .....	21
Phonics for ELL Students .....	23-24
National Right to Read Foundation .....	25
References .....	26

# Overview of Competencies

## Reading Horizons' *Discover Intensive Phonics*: Some Scientific, Research-Based Competencies That Underpin a Successful Reading Program

*Discover Intensive Phonics/Reading Horizons* is a program designed to enhance the reading effort so that the act of reading becomes automatic, fluent, enjoyable, and meaningful. *Discover Intensive Phonics/Reading Horizons* is designed to complement and supplement basal reading programs by employing explicitly systematic phonics instruction. The program correlates significantly with the National Reading Panel's (NRP) list of essential competencies that characterized a strong reading program. Among those competencies listed is the study of phonics: phonemic awareness, phonics instruction, fluency instruction, vocabulary instruction, and comprehension instruction.

This overview demonstrates how *Discover Intensive Phonics/Reading Horizons* incorporates the NRP's instructional recommendations into its product's scope and sequence of competencies.

### 1) Phonemic/Phonological Awareness:

*Phonemic/phonological awareness is the ability to notice, think about, and work with the individual sounds in spoken words.* It is also the single-best predictor of at-risk status for early reading difficulties. The *Discover Intensive Phonics/Reading Horizons* program provides comprehensive sections for assessing and teaching phonologic skills through both direct instruction and computer-assisted materials. Both mediums first address sensitivity to rhyme, followed by segmenting onsets, beginning with the task of syllable splitting. Full segmentation of all phonemes in words follows in this order: initial phonemes, final phonemes, and concluding with the medial vowel sound. Blending is addressed, and, finally, phoneme identification, dealing with the number of phonemes in a word, is taught. Manipulation and substitution of phonemes is experienced throughout the course, using a "Word Builder."

The *Discover Intensive Phonics/Reading Horizons* computer assessments include a nonsense words evaluation and a phonemic awareness evaluation. First, students read a series of nonsense words. If they make an error in pronouncing a word, that word is shown broken into individual phonemes. The administrator of the test then has the opportunity to indicate exactly which part of the word was mispronounced. At the completion of the assessment, a report displays phonemes consistently missed, allowing teachers to focus on the sounds perplexing that student. The phonemic awareness assessments provided in the *Discover Intensive Phonics/Reading Horizons* software meet five of the seven criteria set forth in the DIBELS assessment.

Throughout the *Discover Intensive Phonics/Reading Horizons* course, highly interactive, multi-sensory direct instruction and dictation is employed as the alphabet is introduced, over time, in letter sets of five, each set consisting of one vowel and four consonants. First, teachers help students learn to recognize the sounds of individual letters within the given set. At this time, students also learn the names of those letters and how they are formed. Next, students learn to blend consonant and vowel sounds and arrange those sounds and letters into simple, single-syllable words.

## **Overview of Competencies, Continued**

### **2) Phonics Instruction:**

*Phonics is the ability to draw relationships between the letters (graphemes) of written language and the individual sounds (phonemes) of spoken language. It teaches students to use these relationships to read and write words. Discover Intensive Phonics/Reading Horizons presents the 42 Sounds of English, using a uniquely crafted presentation. Within the cumulative sequence of image and sound, students receive explicit, systematic instruction identifying blends, Digraphs, diphthongs, and Special Vowel Combinations. Students are also immersed in language development, parts of speech, sentence structure, spelling, and handwriting skills. Moving through the logical sequence of information, each incremental step gives students continuous, intrinsic, positive reinforcement from the continual practice of previously learned skills.*

*Discover Intensive Phonics/Reading Horizons demonstrates how to teach students to identify phonetic patterns using the program's unique marking system, which helps students examine, scrutinize, and memorize the internal structure of words. Predictable, consistent daily practice strengthens the visual memory system's ability to recognize repeated word patterns and other pertinent visual cues. Marilyn Adams, author of *Beginning to Read*, states:*

*"The use of minor visual cues that do not distort the basic shapes of letters or spelling patterns of words may be quite helpful to students. Such cues may reduce the trial and error needed to master complex sound-symbol relations and may make the initial phases of learning to read easier. These are certainly worthy of further consideration."*

*(Adams, Marilyn Jager, *Beginning to Read: Thinking and Learning About Print*, Center for the Study of Reading, p. 81)*

### **3) Fluency Instruction:**

*Fluency is the ability to read text accurately and quickly, either silently or orally. Discover Intensive Phonics/Reading Horizons takes much care, early in the course, to eliminate breaking words into individual sounds when pronounced. This is accomplished through use of the *slide*: a blending process in which students are taught how to pronounce words smoothly, moving left to right.*

Fluency creates a bridge between decoding and comprehension, because fluency is grounded in the principles of prior knowledge and predictability. In order to achieve fluent reading, practice materials must reflect prior decoding experiences. Fluency requires accuracy, and accuracy requires not only repetition of previously learned concepts but also the ability to make reasonable predictions about print and content. For these reasons, *Discover Intensive Phonics* supplies many guided reading exercises and vocabulary-controlled reading passages that use carefully selected, decodable text that falls within a student's skill range, experience level, and expectations.

Students frequently apply the *Reading Horizons* skills in context using the *Reading Horizons v5* software or the Student Workbook. First, students apply the *Reading Horizons* skills when reading short, authentic texts, such as street signs, menus, blog posts, classified ads, and newspaper and magazine articles that contain the *Reading Horizons* skills they are learning. Then students apply the skills to longer texts by reading passages while being timed and then answer a series of comprehension questions. On the *Reading Horizons v5* software, students' progress is tracked, and passages of greater difficulty are made available as their fluency improves. Students can also track their fluency progress with the Reading Library student books, using the Reading Progress Fluency Chart included in the back of each book.

## **Overview of Competencies, Continued**

Given proper instruction, meaningful repetition, and sufficient opportunity to decode words, the brain's neural circuitry will classify, integrate, and store many graphic and phonemic features of words, instantly applying a previously stored model. Fluency patterns begin to form. With enough practice and exposure, students begin to recognize and recall words. Studies have shown that the ability to read long words skillfully may depend on a student's ability to break words into syllables. The unique marking system employed in the *Discover Intensive Phonics/Reading Horizons* approach helps accomplish this goal.

Fluency is not a stage when a student suddenly reads all words with ease. Fluency is an ongoing process that is refined as language learners accumulate enough language experiences to make reasonable and accurate predictions about words. The end result of the *Discover Intensive Phonics* method is fluency, and fluency empowers.

### **4) Vocabulary Instruction:**

*Vocabulary is the words necessary to communicate effectively. Discover Intensive Phonics/Reading Horizons* incorporates vocabulary development immediately following the introduction of the first letter groups (*b, f, d, g*, and the vowel *a*), because vocabulary growth correlates strongly with the ability to read with understanding. As students learn to decode a new word, they simultaneously learn the word's meaning and usage. The word is then used in context and in creative writing exercises. *Discover Intensive Phonics* provides several opportunities for vocabulary development. The *Reading Horizons v5* software includes a 10,000-word database to help students increase their vocabulary. Knowledge of word meaning and connotation helps in decoding and improves reading comprehension.

### **5) Comprehension Instruction:**

*Comprehension is the ability to understand, remember, and communicate meaning from what is read.* Comprehension activities continue to grow sequentially more complex as additional consonant and vowel combinations are explored. Within the *Discover Intensive Phonics/Reading Horizons* program, word meaning is discussed regularly and naturally as each new word is introduced and displayed in writing. New words are also identified within other contexts and are demonstrated in students' guided creative writing exercises.

Students are given opportunities to assess comprehension using the *Reading Horizons* Reading Library, which contains over 225 reading passages. On the *Reading Horizons v5* software, students preview a reading passage by looking at the pictures that illustrate the passage and learning the meaning of difficult vocabulary. After reading the passage, students answer a series of comprehension questions to assess their understanding of what they read. Students receive a composite score that includes both their reading rate and their comprehension score to determine which reading passages are made available for them to read. As students increase in fluency and comprehension, higher-level passages are made available to them so they can continue to challenge themselves as they practice applying *Reading Horizons* skills.

It is important to note that *Discover Intensive Phonics/Reading Horizons* is intended to serve as a supplement and not as a comprehensive reading program. Comprehension strategies are deliberately limited in scope to basic questions following the stories in "Little Books" and using the questions found within Mastery Checks.

# **What the Research Says about Using Phonics to Improve Literacy for Fourth-to-Twelfth-Graders and Adults**

"As the key that allows access to many forms of knowledge and information, *reading literacy is perhaps the skill most critical to learning*" (emphasis added).

--The National Assessment of Educational Progress

As summarized in the preceding quote, reading is a crucial skill. Because reading is so important, the discipline of reading has captured the attention of many researchers. The best approaches to teaching reading have been investigated, including those put forth by the National Reading Panel (2000). Educators, in turn, seek the most appropriate methods to teach reading. Reading is a complex process that requires the ability to appropriately orchestrate several different processes in order to achieve the ultimate goal of reading—comprehension. Struggling readers, however, often lack the foundational skills required to comprehend what they read. Without appropriate intervention, these readers experience alarming consequences as illustrated in data collected for adolescent and adult readers.

## **A Profile of the Problem**

According to the National Assessment of Educational Progress (NAEP), which tests the reading ability of America's fourth-, eighth-, and twelfth-grade students, over eight million students struggle with the reading and writing tasks required of them in school (2002). In addition, the National Education Goals Panel (1995) reported that only 28 percent of eighth graders and 34 percent of twelfth graders attain proficient reading levels. Furthermore, just over one-third of high school seniors read proficiently (NEA, 2007). When literacy needs are left unaddressed, there are serious consequences.

Poor literacy is the number-one risk indicator for students' dropping out of school. Deficient readers are far more likely than skilled readers to drop out. In their report, *To Read or Not To Read: A Question of National Consequence*, the National Endowment for the Arts (NEA) (2007) reports that one-half of adolescents in America that are below a basic reading level and one-third of readers who read at a basic reading level drop out of high school. In addition, only 70 percent of high school students earn a diploma on time.

Poor literacy skills affect the ultimate educational level attained by students. Many students lack the literacy skills needed to continue their education. It is estimated that only one-third of high school students graduate with the literacy skills that are needed to do well in college (Deshler et al, 2006).

Today, almost 40 percent of high school graduates lack the reading and writing skills that employers seek, and almost one-third of high school graduates who do enroll in college require remediation. (Deshler et al, 2006) Additionally, 38 percent of employers observe that high school graduates are deficient in reading comprehension, and one in five U.S. workers read at a lower skill level than what is required by their job (NEA, 2007). This results in serious economic consequences for individuals, state governments, and the nation.

## **Factors That Contribute to the Literacy Deficit**

What contributes to this literacy deficit? Three contributors to the deficit in adolescent and adult reading proficiency levels include: 1) the presence of learning disabilities; 2) the fact that reading is a declining activity among teenagers and adults; and 3) secondary teachers receive limited training in adolescent literacy instruction. Each factor is discussed in more detail below.

Learning disabilities are common sources of reading problems. The most common and carefully studied learning disability is dyslexia, which affects five to 17 percent of the school-aged population and 80 percent of individuals who are characterized as having a learning disability (Shaywitz & Shaywitz, 2001). Dyslexia affects reader's ability to convert visual information into sounds, which makes it difficult to decode words and identify them. Fortunately, however, research has shown that the brain can be "rewired" to learn these relationships with intensive phonics training (Shaywitz, S., 2003). It is important to identify and address these deficits. Shaywitz & Shaywitz (2001) assert that "both dyslexic and non-impaired readers improve their reading scores as they get older, but studies show that the gap between the dyslexic and the non-impaired readers remains" (p. 3). In addition, Archer et al (2003) report that, "74% of students identified with reading disabilities in third grade continue to have significant reading challenges in ninth grade (p. 89)," which illustrates the importance of providing appropriate intervention in intensive, systematic phonics training to struggling readers.

A second contributing factor to low literacy skills is the fact that reading is declining as an activity among teenagers. Less than one-third of 13-year-olds in America read daily, and 15-to-24-year-olds spend 7-10 minutes a day reading voluntarily (NEA, 2007). When reading does occur, it often competes with other forms of media, which suggests "less focused engagement with a text" (p. 10). Struggling readers are less often engaged in text because they are less motivated to read (Snow, Burns, & Griffin, 1998). Consequently, as the complexity of text increases, students fall further behind.

A third factor that contributes to the challenges of appropriately addressing adolescent literacy deficits is the fact that secondary teachers receive limited training in adolescent literacy instruction. All secondary teachers are not expected to be trained in teaching foundational literacy skills; however, if content teachers were familiar with some of the literacy strategies used by the reading specialist or special-education teacher, they could pre-teach difficult vocabulary, and their classes could decode difficult words together (NIFL, 2008). In addition, secondary teachers are often frustrated that remediation services are less available and less effective for their struggling adolescent students than they are for struggling young readers and that fewer resources are directed to secondary schools for literacy. Reading and literacy specialists, administrators, and teachers are all important resources to systematically address struggling readers' needs (NIFL, 2008).

## What Should Be Taught?

Snow, Burns, and Griffin (1998) assert that if three areas of reading were appropriately addressed, reading difficulties would be prevented. These three areas include: 1) knowledge of the alphabetic principle; 2) fluency; and 3) comprehension. The alphabetic principle, through further review by the National Reading Panel, has been elaborated to include phonemic awareness (the ability to manipulate sounds) and phonics (the knowledge of letter and sound correspondence). Phonemic awareness and phonics provide the necessary foundation for achieving fluency and comprehension; therefore, these foundational skills must be addressed.

Most children gather some level of phonemic awareness in their younger years. However, if phonemic awareness has not been fully developed and implemented, middle school and high school students may have difficulty when they encounter unfamiliar words. The National Institute for Literacy (2008) reports that “research has found that instruction in decoding, word recognition, and spelling help improve phonemic awareness for students who have difficulty understanding how to blend sounds to articulate unfamiliar words (p. 1). In addition, “phonics helps students to recognize familiar words and decode new ones, providing these students a predictable, rules-based system for reading” (p. 1).

Researchers estimate that one out of 10 adolescents have serious struggles with word identification (Curtis and Longo, 1999), which is a problem that usually stems from difficulties with phonological word analysis (Kamil, 2006; NIFL, 2008). In a study conducted with 346 adolescent readers, Deshler et al (2005) investigated which reading skills adolescents had mastered and which skills they had not. After analyzing several reading assessments, the researchers found that struggling adolescent readers who performed at or below the 40th percentile “need intensive word-level interventions in addition to comprehension interventions” (p. 2), including decoding and word recognition. Further investigation reveals that over half of the struggling adolescents in urban schools struggle with word-level reading (Hock et al, 2009). They conclude that adequate skills in word level reading, as suggested by the National Reading Panel (2000), must be addressed if proficient reading is to be achieved.

Word recognition is “the foundational process of reading and is needed to support vocabulary attainment and reading comprehension” (Archer et al, 2003, p. 90). The ultimate goal of reading is comprehension. In order to achieve this goal of comprehension, students must have the necessary foundation of phonological decoding skills at the word level to allow them to read individual words and strings of words fluently (Archer et al, 2003; Hudson, et. al., 2005; NIFL, 2008). Phonological decoding at the word level is a stepping stone to fluency and comprehension.

Difficulties with word-level reading have been found to be a major influence on reading comprehension (Jenkins et al, 2003; Stanovich, 1991). Slow, belabored decoding overloads short-term memory and impedes comprehension. Readers must learn to process words so automatically and effortlessly that they have the mental energy and capacity left to construct and reflect on meaning and message. There are many effective approaches that can be used to increase fluency and comprehension, but the fact remains that decoding skills must precede fluency. Decoding skills must be developed to the point that decoding occurs effortlessly, known as automaticity. While this ability comes easily for some students, for others, it takes a great deal of decoding practice to master this skill.

## **Phonics for English Speakers of Other Languages**

Phonics instruction is also effective in English for Speakers of Other Language (ESOL) classrooms. Although phonics has historically not been an area of emphasis in second-language reading, several researchers and educators suggest that the teaching of phonics skills is an effective approach to teaching the foundational skills necessary for literacy development (Birch, 2007; Eskey, 1998; Jones, 1996; Fish et al, 2007). Jones (1996) asserts that “the question should no longer be whether to teach phonics as a part of adult ESL instruction, but how this might be done most effectively” (p. 2). (For more information on phonics for ESOL students, see the section titled “Phonics for ESOL Students” on pages 23-24.)

### **Conclusion**

In summary, students need to be trained in hearing sounds and joining them into words, accurate decoding is required for skilled reading, and automatic recognition of words improves comprehension. Although more research is needed in the area of phonemic awareness and phonics with adolescents (NIFL, 2008), existing research is promising. As Kamil (2003) states, “We do know enough about adolescent literacy to make positive changes today” (29).

*See references on p. 26.*

## **No Child Left Behind Criteria**

### **A Description of the Following Scientifically Based Research Studies Examining Measurable Outcomes of the *Discover Intensive Phonics/Reading Horizons* Method**

The *Discover Intensive Phonics for Yourself* methodology matches those standards set forth in the No Child Left Behind Act (2001), either in principle or by individual research methods, whereby data were collected and comparables were constructed:

- Employs systematic, empirical methods based on observation and experiment
- Involves rigorous data analyses deemed adequate to test the stated hypotheses and justify general conclusions
- Relies on measurements and/or observational methods that provide valid data across various evaluators and observers, using multiple measurements and observation strategies
- Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review

#### ***Discover Intensive Phonics and Reading Horizons:* Reading Programs for Children, Adolescents, and Adults**

The following studies are a summary of research conducted in a variety of educational settings. Each is located in a geographically different area, representing diverse student populations. Certain required research guidelines (such as those mentioned in the No Child Left Behind Act, 2001) were applied to each study, either through principle or by research methods wherein data were collected and comparables were constructed.

New studies relating to *Discover Intensive Phonics* and *Reading Horizons* continue, as true research is always an ongoing and viable process.

#### **The following exhibits are detailed in this research packet:**

Iron Springs Elementary School

Huntington Elementary School

Seattle Hill Elementary School

Hale Elementary School

Webster Parish School District

King County Youth Services

Burlington Edison High School

Granite High School

**Scope of Work:**

The Institute for Behavioral Research in Creativity (IBRIC), in partnership with the Utah State Office of Education and the Iron County School District, conducted a three-year evaluation of a systematic phonics program, *Discover Intensive Phonics for Yourself*. This direct instruction and interactive software curriculum supplements reading programs in grades K-3 and has been reported to be effective with K-6 students who struggle with reading.

**Assessment Tools:**

The State of Utah Criterion-Referenced Test (CRT) scores for grades 1–3 in 2007 and for grades 2–3 in 2008 and 2009

- Norm-referenced Iowa Tests of Basic Skills percentile rank for grade 3 students

**Time Frame:**

Conducted between 2007 and 2009

**Observations:**

Overall, teachers reported a very positive attitude about their professional development experience for all three years of the study.

Overall, teachers reported a very positive attitude about key areas of the program elements.

## **An Evaluation of the Reading Horizons Discover Intensive Phonics Program at Iron Springs Elementary School**

**Cedar City, Utah**

Kindergarten through third-grade teachers at Iron Springs Elementary School in Cedar City, Utah, were trained in the program and began implementing the curriculum in their classrooms during the 2006-2007 school year. Student achievement outcome data was gathered via multiple assessments and was compared with a control school similar in Socioeconomic Status (SES) and its suburban extent percent on the same state-assessment tool.

**Results of state of Utah criterion-referenced testing data:**

- Consistent with the published research, systematic phonics instruction has a greater effect on students who receive the instruction in earlier grades and improves over time (Table 1).
- A measure of long-term effects of the program shows a higher percentile rank of grade 5 students in 2009 who had been enrolled in the program in their grade 3 school year compared to the percentile rank of students at the control school (Table 2).

**A measure of long-term effects of the program:**

- The state scores hover at the high 78 percent level (Table 3).
- The control school percentile ranking is random and, in this case, lower at higher elementary grades.
- Consistent with published research, on systematic phonics instruction the Iron Springs percentile ranking scores of Grade 3 students who had the curriculum early and ongoing for three years reveal the best outcomes.
- Although Iron Springs Elementary and the control school are matched on SES, the control school's percentile ranking is most often below district ranking, whereas Iron Springs percentile is most often above its district's ranking.

**Impact and Recommendations:**

Based on the findings of this study, the *Discover Intensive Phonics for Yourself* program positively impacted student outcomes, especially when implemented in the early grades. The positive reading attitudes of students and positive teacher attitudes regarding the professional development training and program elements adds to this program's sustainability as a piece of the reading pedagogy in classrooms. The improved outcomes of K-3 students in this study motivate further research of the use of this program in more K-3 classrooms as well as with students in upper elementary grades who have difficulty reading. If the outcomes of students enrolled in the program in this study generalize to other students given access to the program, this supplemental curriculum could play a part in states closing the gap in student reading outcomes and achieving Annual Yearly Progress (AYP) goals.

Table 1: Percent Proficient on the Language Arts State CRT

	Grade 1			Grade 2			Grade 3		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>Iron Springs</b>	81%	68%	79%	79%	77%	86%	77%	77%	93%
<b>Control School</b>	55%	75%	66%	66%	71%	91%	71%	72%	69%
<b>State</b>	74%	78%	77%	77%	78%	79%	78%	77%	80%
<b>Iron District</b>	83%	80%	83%	83%	83%	85%	83%	84%	88%

- 1 year of the curriculum
- 2 years of the curriculum, 1<sup>st</sup> & 2<sup>nd</sup> grade or 2<sup>nd</sup> & 3<sup>rd</sup> grade
- 3 years of the curriculum, K, 1<sup>st</sup>, 2<sup>nd</sup> grade or 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> grade

Table 2: Grade 5 National Percentile Rank for Iowa Test of Basic Skills, Fall 2009

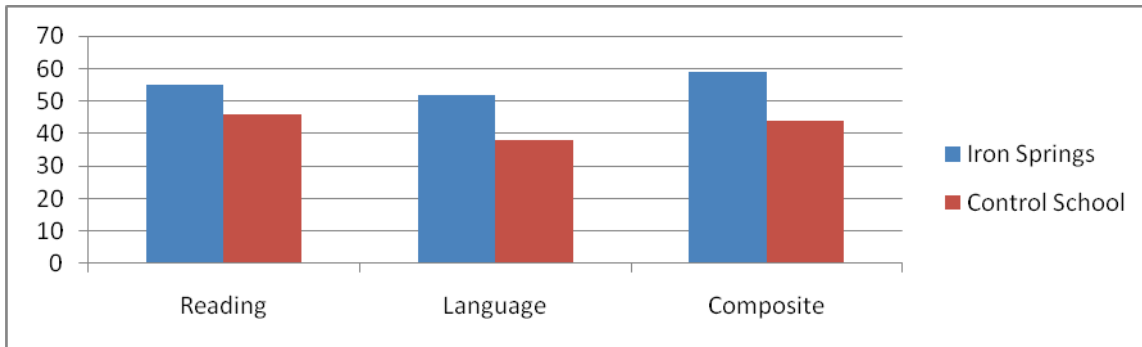
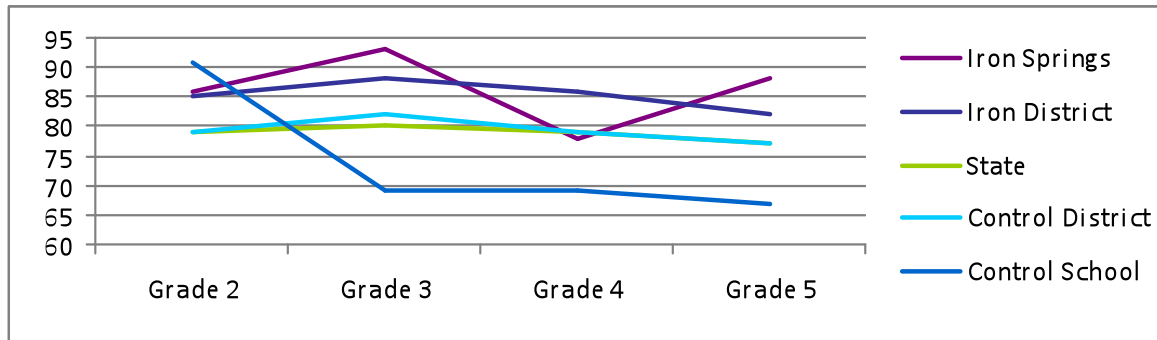


Table 3: Grades 2–5 Percent Proficient Language Arts CRT in 2009



**Scope of Work:**

Twenty-one first-grade students were administered a qualitative reading inventory (district-sponsored test) to quantify what (if any) reading gains were made after having used the *Discover Intensive Phonics* program.

**Tool:**

State Core Reading Test (Utah) Qualitative Reading Inventory

**Time Frame:**

Conducted between January and April 2000 (four months)

## Huntington Elementary School

### Huntington, Utah

In the spring of 1998, a first-grade instructor at Huntington Elementary School in Huntington, Utah, reported noticeable gains on the State Core Reading Test after having implemented the *Discover Intensive Phonics* program in the classroom. All 23 students scored above 90 percent (50 out of 60 points). It was reported that among those 23 students, there existed a wide range of skill levels upon entering the first grade.

In the spring of 1999, again, first-grade students were reported to have scored above 90 percent on the same state-assessment tool.

Student	Pre-Test	Post-Test	Increase by grade level
	Highest Instructional Level*	Highest Instructional Level*	
1	Pre-Primer	Grade 3	4 grade levels
2	Pre-Primer	Grade 2	3 grade levels
3	Grade 1	Grade 4	4 grade levels
4	Pre-Primer	Grade 3	4 grade levels
5	Grade 2	Grade 4	2 grade levels
6	Grade 1	Grade 4	4 grade levels
7	Grade 2	Grade 4	2 grade levels
8	Primer	Grade 3	3 grade levels
9	Primer	Grade 4	4 grade levels
10	Grade 1	Grade 4	3 grade levels
11	Pre-Primer	Grade 1	2 grade levels
12	Pre-Primer	Grade 2	2 grade levels
13	Pre-Primer	Grade 3	4 grade levels
14	Primer	Grade 3	3 grade levels
15	Pre-Primer	Grade 1	2 grade levels
16	Pre-Primer	Grade 3	4 grade levels
17	Grade 1	Grade 4	3 grade levels
18	Pre-Primer	Grade 3	4 grade levels
19	Primer	Grade 3	3 grade levels
20	Primer	Grade 4	4 grade levels
21	Primer	Grade 3	3 grade levels
		<b>Average</b>	<b>3.19 grade levels</b>

Evaluator’s Observations: In the third year of program use, the above-mentioned first-grade instructor reported giving each of the 21 students a Qualitative Reading Inventory used by the local district. Scores were reported as ranging from the first- to the fourth-grade reading level. “I am so appreciative of *Discover Intensive Phonics*,” commented the instructor. “I plan to continue using it for the remaining years of my teaching career.”

**Scope of Work:**

Using both a criterion-referenced assessment tool and a norm-reference tool, comparable percentages were constructed among the school, the school district, and the state to track the reading, writing and listening gains for K-2 students.

**Tool:**

Washington Assessment of Student Learning (WASL)

**Time Frame:**

Two-year study conducted 1996-1998. Seattle Hill Elementary School first implemented *Discover Intensive Phonics* as early as 1992. Convinced of the benefits of the program, the instructional staff made a commitment to add a stronger phonics instructional piece to the primary classes. All staff attended an in-service, district-wide training to upgrade their program.

**Seattle Hill Elementary School**

Everest, WA

School		
	School Year	Reading
Seattle Hill Elementary	96/97	<b>74.5</b>
	97/98	<b>90.4</b>
Snohomish School District	96/97	57.7
	97/98	72.3
State of Washington	96/97	47.6
	97/98	55.6

Evaluator’s Observations: It was reported on a user survey that according to data collected from the CTBD and the WASL, the excellent reading scores are most likely the result of the *Discover Intensive Phonics* program. The program evaluator strongly feels there is a causal relationship between the program and the charted results, seen above. “If it were due simply to socioeconomic, then other schools with our demographics would be scoring similarly. Our scores on the WASL are among the highest in the state.”

**Scope of Work:**

Pilot data collected between two first-grade classes selected to test and document the *Discover Intensive Phonics* product

**Tool:**

Scholastic Assessment Test (SAT) data

**Time Frame:**

One-year study conducted between August 1988 and May 1989

## Hale Elementary School

Chicago, Illinois

In 1988, two first-grade classes at Hale Elementary School in Chicago, Illinois, were selected to conduct a pilot test of *Discover Intensive Phonics*. The yearlong study used the SAT as a pre- and post-testing tool. At the end of the year, students who used *Discover Intensive Phonics* averaged 91 percent in word study skills, compared to 37 percent for those first-graders not participating in the *Intensive Phonics* program. In word reading, students using *Intensive Phonics* scored 67 percent, compared with 25 percent for non-participants. Students who used *Discover Intensive Phonics* also scored high in comprehension, listening, and spelling skills, with percentages in the 70s, compared with non-participating students' scores in the 30s.

	Non-Participants	<i>Intensive Phonics</i> Group	Difference
<b>Word-Study Skills</b>	37%	91%	54%
<b>Word-Reading Skills</b>	25%	67%	42%
<b>Comprehension</b>	29%	75%	46%
<b>Spelling</b>	38%	73%	35%

Evaluator’s Observations: A yearlong study of two first-grade classes was conducted using the SAT as the pre- and post-assessment tool. Data collected at the end of the year revealed the average percentage as follows:

- \* Ninety-one percent in word-study skills, compared to 37 percent for those first graders not participating in the *Intensive Phonics* program
- \* Sixty-seven percent in word reading, compared with 25 percent for non-participants
- \* Seventy-five percent in comprehension, compared with 29 percent for non-participants
- \* Seventy-eight percent in listening, compared with 34 percent for non-participants
- \* Seventy-four percent in spelling, compared with 38 percent for non-participants

The complete study also compares these results with first-grade scores district-wide.

**Scope of Work:**

The Legislature of Louisiana, in its 1997 session, passed House Bill 2444 (Act 45), which states:

“Effective with the 1997-98 school year, each governing authority of a public elementary school shall implement a reading program at each elementary school that is designed and intended to teach each student to read at grade level by not later than the end of first grade.”

It further states that the reading program should include, but need not be limited to, a phonics component.

Following this directive, Webster Parish School Board in Minden, Louisiana, implemented a four-pronged program during the 1997-1998 school year for all K-3 students in the 12 elementary schools in the district.

**Tool:**

Gates-MacGinitie Test

**Time Frame:**

Eight-month-long study conducted between October 1997 and May 1998

**Webster Parish School District**

**Minden, Louisiana**

First-grade students who scored at or lower than 1.5 were considered below reading grade level, 1.6 through 1.8 was considered at grade level, and 1.9 and above was considered above grade level. The same ratio was used in the second and third grades.

Grade	# of students	Average Gains	% of Students Improved
1st Grade	587	.47	87%
2nd Grade	539	1.05	95%
3rd Grade	622	.89	93%
Grades 1-3	1748	.80	92%

The reports indicate that greatest gains were shown in first grade and Kindergarten, indicating the importance of a good start. Eighty percent of Kindergarten students scored 70 percent or above in reading, as measured by the Webster Parish Kindergarten Exit Test.

The totals represent valid pre- and post-test scores on all students we could unquestionably verify.

**Scope of Work:**

Case study conducted by King County Youth Services, a pilot project with *Reading Horizons* software

**Tool:**

Pre- and post-tests provided with the *Reading Horizons* courseware

**Timeframe:**

Eight-month study conducted between November 1997-June 1998

**Demographic Population:**

Juveniles Charged: 7,377  
 Incarcerated: 6,682  
 Detention School: 5,629

**Racial and Ethnic Background:**

(in percentages)  
 White: 47.77%  
 African American: 34.81%  
 Asian: 8.08%  
 Hispanic: 4.73%  
 Native American: 2.90%  
 Pacific Islander or Other: 1.17%

**Other Statistics**

Repeat offenders: 75%  
 Cost of incarceration: \$144-\$180 per day  
 Estimated low-income families: 75%-80%  
 95% of repeat offenders attend school only when incarcerated.

## King County Youth Facility

### Seattle, Washington

Educators at King County School in Seattle, Washington, experienced phenomenal results with the *Reading Horizons* software. Every student who completed the program progressed three or four grade levels in a period of six weeks to two months. By contrast, the educators at King County found that traditional methods, such as one-on-one tutoring, rarely improved students' reading skills more than one grade level every three months. These results were imbued with great meaning for educators at King County because they have seen the ability to read become a powerful motivator for students who had given up hope of a better future.

Student	Pre-test	Post-test	Increase	Time
1	4.0	7.4	3.4	8 weeks
2	1.6	3.8	2.2	2 weeks
3	2.6	5.1	2.5	6 weeks
4	7.8	8.6	0.8	2 weeks
5	4.0	7.7	3.7	4 weeks
6	1.0	2.0	1.0	6 weeks
7	1.0	1.3	0.3	4 weeks
8	7.4	8.8	1.4	9 weeks
9	0.4	0.7	0.3	6 weeks
10	4.8	6.9	2.1	8 weeks
11	5.5	7.0	1.5	2 weeks
12	2.6	5.3	2.7	6 weeks
13	5.5	6.5	1.0	4 weeks
<b>Average</b>	<b>3.7</b>	<b>5.5</b>	<b>1.8</b>	<b>5.2 weeks</b>

**Evaluator's Observations:** The evaluator expressed outcomes as "phenomenal results" and said that every participant completing the program increased three or four grade levels. Most students finished the basic phonics software program in about six weeks to two months. It was reported that, by contrast, traditional methods such as intensive one-on-one tutoring rarely improved students' reading skills more than one grade level every three months. The evaluator expressed the observation that what makes the project even more important is that learning to read becomes a powerful motivator for students who have given up hope of a better future.

**Scope of Work:**

Reading Horizons, used with students participating in special-education classes

**Tool:**

Pre- and post-measurement tests accompanying the Reading Horizons program (based on the Slosson Oral Reading Test)

**Timeframe:**

Conducted during the 2001-2002 scholastic year

Burlington Edison High School in Burlington, Washington, purchased the Reading Horizons courseware in the fall of 2001. A special-education teacher put the software to use immediately.

## Burlington Edison High School

### Burlington, Washington

Burlington Edison High School in Burlington, Washington, purchased the Reading Horizons courseware in the fall of 2001. A special education teacher put the software to use immediately.

Student	Pre-test	Post-Test	Increase
1	5.7	5.7	0
2	7.8	11.0	3.2
3	8.4	11.0	2.6
4	7.0	8.7	1.7
5	3.6	5.1	1.5
6	6.7	8.3	1.6
7	6.6	8.2	1.6
8	5.7	6.4	0.7
9	6.5	7.1	0.6
10	8.9	11.4	2.5
11	5.9	8.8	2.9
12	7.6	8.9	1.3
<b>Average</b>	<b>6.7</b>	<b>8.4</b>	<b>1.7</b>

**Evaluator's Observations:**

The students served saw above-average gains, especially considering past performance. The above table illustrates the grade gains that were achieved by students who entered the program reading at or below an eighth-grade level.

**Scope of Work:**

Reading Horizons, used with students participating in special education and ESL classes

**Tool:**

Pre- and post-test measurement tests accompanying the Reading Horizons program (based on the Slosson Oral Reading test)

**Time Frame:**

Conducted between August 2005-May 2006. Data collection conducted by the resource teacher at Granite High School in Salt Lake City, Utah

**Granite High School**

Salt Lake City, Utah

Student	Granite High School Resource Class		
	Pre-test	Post-test	Increase
1	6.8	12.0	5.2
2	6.5	11.5	5.0
3	3.5	8.2	4.7
4	4.2	7.1	2.9
5	3.5	6.8	3.3
6	6.4	11.5	5.1
7	5.4	8.6	3.2
8	4.2	6.8	2.6
9	2.0	5.0	3.0
10	6.1	11.7	5.6
11	8.6	11.4	2.8
12	4.3	7.2	2.9
13	4.3	6.3	2.0
14	7.3	11.3	4.0
15	11.0	12.0	1.0
16	4.5	7.4	2.9
<b>Average</b>	<b>5.54</b>	<b>9.05</b>	<b>3.51</b>

Student	Granite High School ESL Class		
	Pre-test	Post-test	Increase
1	4.3	6.8	2.5
2	3.9	8.5	4.6
3	1.2	8.3	7.1
4	7.6	11.6	4.0
5	6.9	11.2	4.3
6	5.1	11.5	6.4
7	8.5	12.0	3.5
8	0.3	8.6	8.3
9	6.7	11.2	4.5
10	1.4	4.9	3.5
11	1.3	8.5	7.2
12	2.1	11.1	9.0
13	2.0	8.3	6.3
14	1.4	4.3	2.9
15	1.7	3.8	2.1
16	0.4	8.2	7.8
<b>Average</b>	<b>3.43</b>	<b>8.66</b>	<b>5.23</b>

**Evaluator's Observations:**

The evaluator expressed outcomes as "incredible" and "rewarding." Of the progress made, the evaluator said that "there was two-to-three years' progress in four weeks." The evaluator said that the gains were significant, because they happened "over and over" with students in her classroom.

## **Other Current Findings**

### **A Viable Option for Addressing Language-Processing Disorders**

Advancements in technology now allow researchers and educators to understand how the brain functions in relation to learning. A study conducted at Yale University, comparing dyslexic and non-dyslexic readers using MRI (Magnetic Resonance Imaging) data, allowed researchers to observe how certain areas of the brain behave during the process of reading. The resulting reports noted observable dysfunctions within phonologic modules of dyslexic readers' brains – specifically, their language-processing systems.

The phonologic module is a component of the brain's "language factory," located in the left occipital lobe. Here, the relationship between the basic elements of language (sounds/phonemes and symbols/graphemes) is discerned. According to the report, dyslexic readers' brains are unable to efficiently process the language information because of under activity in this area of the brain and over activity in others. It is suspected that dyslexic disruption most likely occurs during embryonic formation.

Consequently, because the neural systems either scramble or inefficiently relay the most basic "bytes" of language code, extracting meaning from print becomes a daunting task for the dyslexic reader. It is suspected that one out of every five people (approximately 10 million) may be affected with some degree or variation of dyslexia.

The good news is that research has shown how successful intervention can be achieved with instruction of explicit, systematic phonics.

*Reading Horizons/Discover Intensive Phonics* provides what language research advocates: explicit, systematic phonics presented in a logical sequence that is both easy to teach and learn. Students participate in many hands-on, multi-sensory experiences that encompass the visual, auditory, and kinesthetic modalities of learning. Throughout the course, students learn to use a unique marking system that helps develop left-to-right orientation, identify and prove the sounds within a word, and recognize word patterns and families.

Whether students are dyslexic, underexposed to the conventions of print, or are unaffected by reading problems, the program's highly structured delivery methods enhance students' understanding of the predictable and patterned constructs of language.



## **Phonics for ELL Students**

**Phonics for ELL Students:** *Reading Horizons* has been proven to be beneficial for English Language Learners (ELL). Some of the skill areas that are sharpened by teaching *Reading Horizons* as part of an ELL course include:

**Reading:** Students are taught decoding strategies that improve their ability to read unfamiliar words. When students acquire strategies that help them accurately decode, they are able to develop greater automaticity in applying these strategies, which leads to increased reading fluency—and, ultimately, increased reading comprehension.

**Vocabulary development:** Students are taught both the sound and meaning of English vocabulary words. Learning both the sound and meaning of vocabulary simultaneously is helpful, because if students can associate the sound of a new word when learning its meaning, the new word “sticks” better.

**Pronunciation:** Students are taught the pronunciation and articulation of the 42 Sounds of the English language. Instruction in the “segmental” pronunciation (pronunciation of individual sounds) contributes to improved pronunciation on the sentence-level, or “suprasegmental” pronunciation-level (including stress, rhythm, and intonation).

**Writing:** Students are taught patterns and rules for spelling English. In addition, students are taught basic sentence structure so they can apply these learned spelling strategies in context of sentence-level writing tasks.

**Affective factors:** Students gain increased motivation and confidence as they are empowered with strategies that help them successfully read, spell, and pronounce English vocabulary independently. In addition, the method utilizes a multi-sensory approach to appeal to a variety of learners with different learning-style preferences.

**Strategy instruction:** The strategy-based approach of *Reading Horizons* better prepares ELL students for “real-world” experiences rather than serving as a temporary fix to decoding, spelling, and pronunciation difficulties. The strategies taught in *Reading Horizons* help ELL students develop autonomy as they learn how to decode, spell, and pronounce English words independently.

## **Resources that promote teaching phonics strategies to ELL students:**

Aebersold, J. & Field, M. L., (1997). *From Reader to Reading Teacher: Issues and Strategies for Second Language Classrooms*. New York: Cambridge University Press.

Anderson, N. J. (2003). *Exploring Skills: Reading*. In D. Nunan (Ed.), *Practical English Language Teaching* (pp. 67-86). New York: McGraw-Hill.

Anderson, N. J. (2008). *Practical English Language Teaching: Reading*. New York: McGraw-Hill.

Birch, B. M, (2002). *English L2 Reading: Getting to the Bottom*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Carrell, P. (1993). *Introduction: Interactive Approaches to Second Language Reading*. In P. Carrell, J. Devine, & D. Eskey (Eds.), *Interactive Approaches to Second Language Reading*. Cambridge, England: Cambridge University Press.

Eskey, D. (1993). *Holding In the Bottom: An Interactive Approach to the Language Problems of Second Language Readers*. In P. Carrell, J. Devine, & D. Eskey (Eds.), *Interactive Approaches to Second Language Reading*. Cambridge, England: Cambridge University Press.

Genesee, F. (2008, April). *Learning to Read a Second Language: What Does the Research Say & What Do We Do About It?* Presentation presented at the international TESOL convention, New York.

Nunes, T. (1999). *Learning to Read: An Integrated View from Research and Practice*. Dordrecht, The Netherlands: Kluwer.

Schwarz, R. (1998). *Using Phonemic Awareness with ESL Students*. Washington, D.C.: National Adult Literacy and Learning Disabilities Center.



Burke, Virginia 22009  
(703) 425-5388

Tyson J. Smith, President  
Reading Horizons  
60 North Cutler Dr., #101  
North Salt Lake, UT 84054

Dear Tyson:

We are pleased to notify you that Discover Intensive Phonics for Yourself and Reading Horizons have been supported by The National Right to Read Foundation, as exemplary instructional programs for teaching children and adults to read.

The success of these programs in teaching the skill of reading is a precious gift to all those who have been locked out of society's mainstream because of illiteracy. You have made a significant impact nationally on how children are taught to read, and the response of the American people clearly indicates you are succeeding.

In our review of your program, we have used the following criteria: is it supported by experimental research; is the instructional approach direct and systematic; are the reading skills taught in the order of difficulty students have in learning them; is the phonetic system taught in a specific sequence; is adequate practice provided at each step to ensure that the principles being taught are thoroughly learned; are letter sounds taught in isolation; is the blending of the sounds of the letters taught; is the phonetic system taught in its entirety; and finally, does the individual learn to read using your system of phonetic teaching instruction? Based on our assessment, you meet and exceed these requirements.

According to the 2002 National Assessment of Educational Progress, from 26 to 69% of students in grade four are reading below basic level, depending on the state. The continued problem of illiteracy is an enormous one, but you have made a very significant contribution to solving one of America's greatest unmet needs. Congratulations on your achievement. We wish you continued success, as you pursue the goal of eliminating illiteracy in America.

Sincerely,

Joy Sweet  
Executive Director

## References

- Archer, A., M. Gleason, and V. Vachon (2003). Decoding and fluency: Foundational skills for struggling older readers. *Learning Disability Quarterly*, 26, 89-101.
- Birch, B. M. (2002). *English L2 Reading: Getting to the Bottom*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Curtis, M. E., & Longo, A. M. (1999). *When adolescents can't read: Methods and materials that work*. Cambridge, MA: Brookline Books.
- Deshler, D., Hock, M. & Catts, H. (2006). Enhancing outcomes for struggling adolescent readers. *Perspectives*, 32, 21-25.
- Eskey, D. (1993). Holding in the bottom: An interactive approach to the language problems of second language readers. In P. Carrell, J. Devine, & D. Eskey (Eds.), *Interactive approaches to second language reading*. Cambridge, England: Cambridge University Press.
- Fish, B. Knell, E., & Buchanan, H. (2007). Teaching literacy to preliterate adults: The top and the bottom. *AEIS* 5(2). Available at <http://www.tesol.org/NewsletterSite/view.asp?nid=3851>.
- Hock, M.F., Brasseur, I.F., Deshler, D.D., Catts, H.W., Mark, C., & Marquis, J.G. (2009). What is the reading component skill profile of adolescent struggling readers in urban schools? *Learning Disability Quarterly*, 32(1), 21-39.
- Hudson, O., Lane, P., & Pullen, V. (2005). Reading fluency assessment and instruction: What, why, and how? *The Reading Teacher*, 58, 702-713.
- Jenkins, J. R., Fuchs, L.S., van den Broek, P. Espin, C. & Deno, S. L. (2003). Sources of individual differences in reading comprehension and reading fluency. *Journal of Educational Psychology*, 95, 719-729.
- Kamil, M. L. (2003). *Adolescents and literacy: Reading for the 21st century*. Washington, D.C.: Alliance for Excellent Education.
- Jones, M. L. (1996). *Phonics in ESL literacy instruction: Functional or not? Proceedings of the 1996 World Conference on Literacy*. Philadelphia, PA: International Literacy Institute.
- National Assessment of Educational Progress (2002). *The nation's report card: Reading*. National Center for Education Statistics, US Department of Education: Washington, DC. Retrieved March 8, 2010 from <http://nces.ed.gov/nationsreportcard/reading/>.
- National Endowment for the Arts. (2007). *To Read or Not to Read: A question of national consequence*. Research Report #47. Retrieved March 10, 2010 from [www.nea.gov/research/ToRead.pdf](http://www.nea.gov/research/ToRead.pdf) /.
- National Education Goals Panel. (1995) *National education goals report: Building a nation of learners*. Washington, D.C.: Author.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Reports of the subgroups. Washington, D.C.: National Institute of Child Health and Human Development.
- National Institute for Literacy (NIFL). (2008). *Key literacy component: Decoding*. Retrieved March 8, 2010 from <http://www.adlit.org/article/27875>.
- Shaywitz, S., & Shaywitz, B. (2001). The neurobiology of reading and dyslexia. In *Focus on Basics*, Volume 5, Issue A, August 2001. Retrieved on March 8, 2010 from <http://www.ncsall.net/?id=278>.
- Shaywitz, S. E. (2005). *Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level*. New York: Vintage Books.
- Snow, C. E., Burns, M. S., & Griffin, P. (Eds.) (1998). *Preventing reading difficulties in young children*. Washington, D.C.: National Academy Press.
- Stanovich, K. E. (1991). Word recognition: Changing perspectives. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Volume 2, pp. 418-452). New York: Longman.





**ReadingHorizons**

The Foundation for Reading English

60 North Cutler Drive, Suite 101

North Salt Lake, UT 84054

[www.ReadingHorizons.com](http://www.ReadingHorizons.com)

[info@readinghorizons.com](mailto:info@readinghorizons.com)