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RESEARCH SUPPORTING  
*ReadingHorizons*  
IN **SECONDARY** SETTINGS

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*Reading Horizons helps struggling readers  
in secondary classrooms make quick  
gains in reading. Research proves it.*

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# Reading Horizons

## IN SECONDARY SETTINGS

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### Overview of the Reading Horizons Approach

Reading Horizons is a program designed to help struggling readers and English Language Learners develop skills that make reading automatic, fluent, meaningful, and enjoyable. The Reading Horizons method (formerly known as Discover Intensive Phonics) 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) that represents 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 engaging auditory, visual, and kinesthetic modalities simultaneously during instruction. A unique marking system is employed to draw student attention to the features and patterns of English as well as to give visual cues for pronunciation. Throughout the course of instruction, students are provided with engaging activities for practice and application of the skills learned.

*Reading Horizons Elevate™* is used as an intervention in fourth- through twelfth-grade settings and as a literacy curriculum in adult education settings. The *Reading Horizons Elevate* program correlates with the five pillars of effective reading instruction as identified by the National Reading Panel (National Institute of Child Health and Human Development [NICHD] in 2000). (See the Reading Horizons Research Base White Paper for more detailed information at [www.ReadingHorizons.com/RESEARCH](http://www.ReadingHorizons.com/RESEARCH).)

### Research Proving the Effectiveness of the Reading Horizons Approach

Reading Horizons recognizes the importance of conducting research to demonstrate the validity of its method and effectiveness of its products. Reading Horizons research has been conducted over the last two decades in a variety of educational settings. The following studies provide a summary of results from just a few of these settings and represent diverse student populations. Ongoing research relating to Reading Horizons method and products continues, as true research is a continuous process.

AUSTEN HIGH SCHOOL [ELL]  
CHAMBERLAIN HIGH SCHOOL [ELL AND SPED]  
AVALON EDISON HIGH SCHOOL [SPED]  
LIONEL MIDDLE SCHOOL [ELL]  
MILLINGTON YOUTH CENTER [ELL AND SPED]  
BAILEY MIDDLE SCHOOL [SPED]

# ACKNOWLEDGMENTS

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This summary of studies was developed through the combined work of several individuals.

We are particularly indebted to each site that implemented the Reading Horizons program and agreed to collect and share student outcome data. Without their willingness and efforts, this summary of studies would not have been possible.

The RISE Institute for Literacy provided valuable insights throughout the compilation of the research.

Additionally, we would like to recognize the contribution of Holly A. Hyte, a representative of the independent educational research firm Clear Insight for guidance in the tasks of data analysis and interpretation of outcomes. We would also like to recognize the Reading Horizons representatives who supported the data collection efforts across several research sites and who worked to extend product use to communities who will benefit from the systematic Reading Horizons approach.

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# AUSTEN HIGH SCHOOL

**TYPE OF STUDY**

*Comparison group*

**TYPE OF SCHOOL**

*Public*

**POPULATION OF STUDENTS**

*Linguistically diverse (ELL)*

**GRADE LEVEL**

*High school*

**LENGTH OF DATA COLLECTION**

*1 school year*

**LOCATION**

*Western United States,  
Mountain Region*

**POPULATION OF CITY**

*178,965 people*

**SOCIO-ECONOMIC STATUS**

*32% of total enrollment qualified  
for free or reduced lunch*

**NUMBER OF SCHOOLS**

*1 school*

**NUMBER OF STUDENTS**

*75 students*

**READING HORIZONS MATERIALS**

*Interactive software*

**ASSESSMENT TOOLS**

*Word Recognition Assessment in  
Reading Horizons software*

## Summary of Findings

*A higher percentage of students in a high school refugee program made gains on Word Recognition Assessment scores after receiving Reading Horizons instruction than did students in the program who did not receive Reading Horizons instruction.*

## Background

A program was established at Austen High School to meet the needs of students who had recently relocated to the area as refugees. The students, who are linguistically and culturally diverse, were separated into two classes for this study: one that received Reading Horizons instruction and one that didn't.

One program aspect that presented a logistical challenge to gathering student outcome data was the varied length of student enrollment. Some students spent a whole year in the program, whereas others spent less than half a year. Two types of students were in the program for fewer months: (a) those who relocated to the city mid-school year, and (b) those who, at the mid-year assessment, demonstrated sufficient linguistic skills to transfer to more inclusive classrooms. Although the partial-year student group varied as described, both classrooms had a similar proportion of students from this sub-group: 45% of students receiving Reading Horizons instruction spent less than four months in the program as compared to 46% of students who did not receive Reading Horizons instruction.

## Resources

Reading Horizons interactive software and a teacher trained in the Reading Horizons method.

### Implementation

The refugee program included two classes. Students in one class received instruction in Reading Horizons.

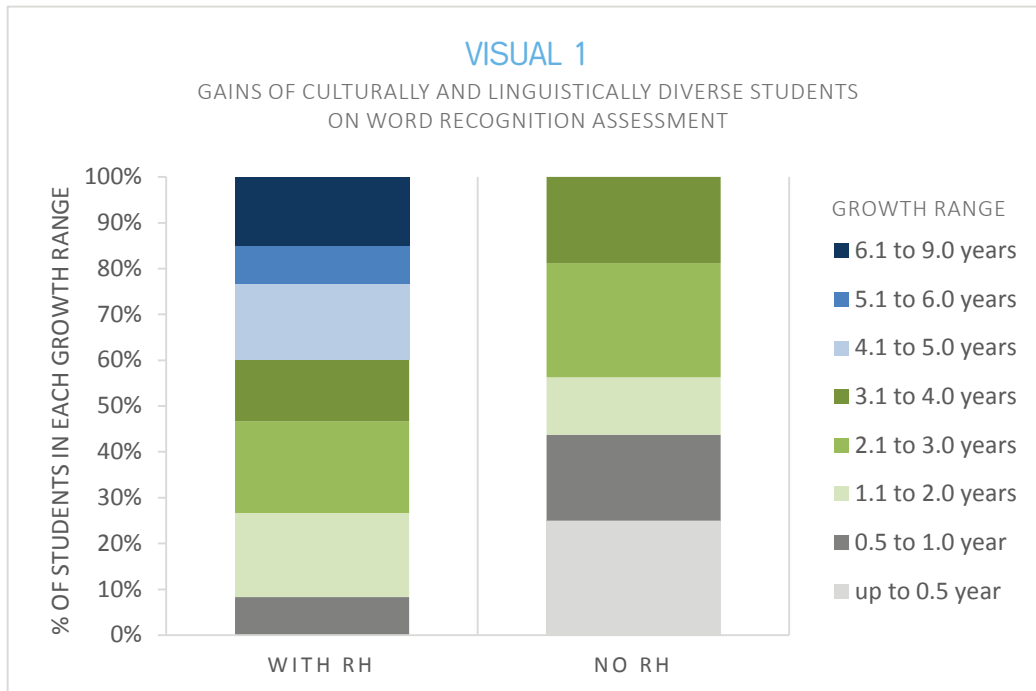
**NOTE:** In the Word Recognition Assessment included in the Reading Horizons software, students read word lists of increasing difficulty and receive a score based on corresponding grade-level equivalents. Levels on the assessment range from 0.0 to 12.0. The assessment was administered three times: at the beginning, middle, and end of the school year. Students in the program for less than four months participated in two rather than three assessments: at the beginning and end of their time in the program. The assessment was given to students in both classes; however, only a sample of students in the class not receiving Reading Horizons instruction took part in the assessment (60 students who were tested received Reading Horizons instruction and 15 students who were tested did not receive Reading Horizons instruction).

### Outcomes

Sixty percent (60%) of students who received Reading Horizons instruction demonstrated double the gains made by the same percentage of students who did not receive Reading Horizons instruction (four levels of gain versus two levels of gain, respectively) (Visual 1).

Forty percent (40%) of students who received Reading Horizons instruction made greater gains than the gains demonstrated by students who did not participate in the Reading Horizons program (Visual 1).

The average gain made by all students in each class was 3.7 levels for students receiving Reading Horizons instruction compared to 1.8 levels for students not receiving Reading Horizons instruction.



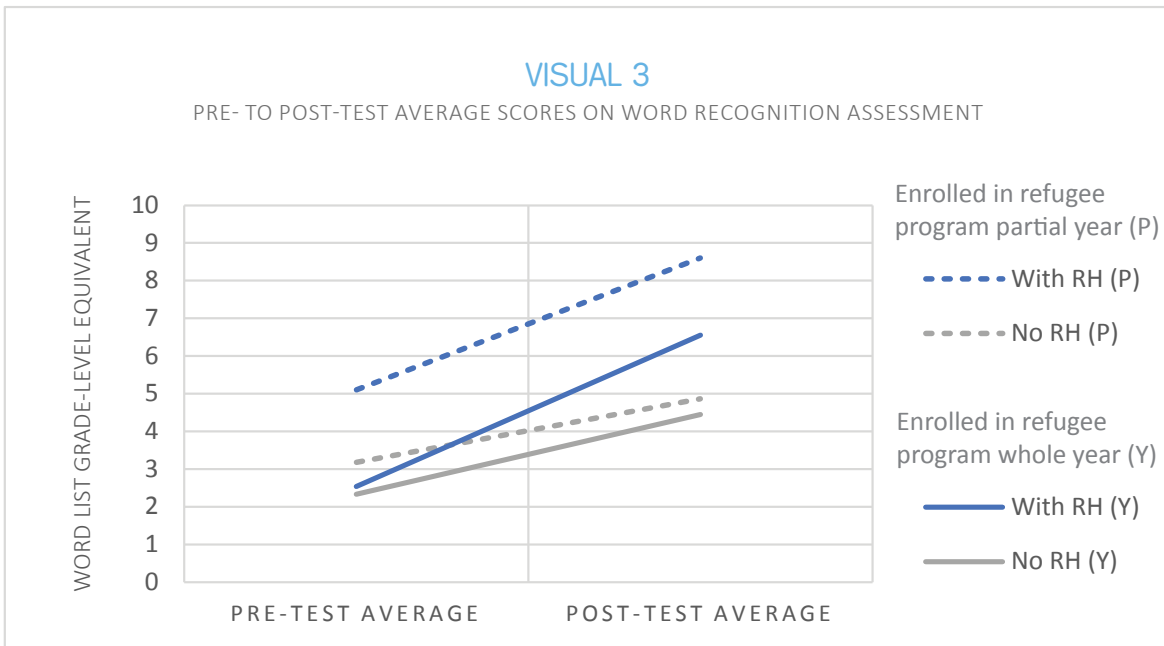
A comparison of gains for students enrolled for the whole school year is as follows: students who received Reading Horizons gained 3.8 levels, whereas students who did not receive Reading Horizons gained 2.0 levels (Visual 2). (The pre-scores of both classes were similar.)

A comparison of gains for students enrolled for the partial school year is as follows: students who received Reading Horizons instruction gained 3.8 levels, whereas students who did not receive Reading Horizons gained 1.6 levels (Visual 2). (The pre-score for students in the Reading Horizons class was higher than the pre-score for students who didn't receive Reading Horizons.)

VISUAL 2					
GAINS IN WORD RECOGNITION ASSESSMENT SCORES (INCLUDING RANGES)					
PRE-MID-POST TEST GROUP					
	PRE-SCORE	MID-SCORE	MID-GAIN	POST-SCORE	END-GAIN
WITH READING HORIZONS	2.4 [0.0-7.3]	3.9 [0.1-8.9]	1.6 [0.1-4.1]	6.2 [1.0-12.0]	3.8 [0.9-8.8]
NO READING HORIZONS	2.2 [0.1-6.2]	3.3 [0.4-7.3]	1.1 [0.1-2.6]	4.2 [1.0-8.8]	2.0 [0.7-3.7]
PRE-POST TEST GROUP					
	PRE-SCORE	POST-SCORE		END-GAIN	
WITH READING HORIZONS	5.1 [0.1-8.7]	8.6 [0.9-12.0]		3.5 [0.7-8.2]	
NO READING HORIZONS	3.0 [0.1-8.3]	4.6 [0.1-12.0]		1.6 [0.0-3.8]	

Students who received Reading Horizons instruction had a steeper rise in gains than did students who did not have Reading Horizons instruction (Visual 3).

The highest possible score on the word recognition test is level 12. Sixteen of the students who received Reading Horizons instruction reached the maximum score on the post test (27%) as compared to two students who reached the maximum score in the group that did not receive Reading Horizons instruction (13%).



# CHAMBERLAIN HIGH

## TYPE OF STUDY

*Pre-/Post-*

## TYPE OF SCHOOL

*Public*

## POPULATION OF STUDENTS

*Linguistically diverse (ELL),  
special education*

## GRADE LEVEL

*High school*

## LENGTH OF DATA COLLECTION

*1 school year*

## LOCATION

*Western United States,  
Mountain Region*

## POPULATION OF CITY

*178,965 people*

## SOCIO-ECONOMIC STATUS

*53% of total enrollment qualified  
for free or reduced lunch*

## NUMBER OF SCHOOLS

*1 school*

## NUMBER OF STUDENTS

*32 students (16 linguistically  
diverse [ELL], 16 resource room)*

## READING HORIZONS MATERIALS

*Interactive software*

## ASSESSMENT TOOLS

*Word Recognition Assessment in  
Reading Horizons software  
(See the note on p.6 for more  
information regarding this  
assessment.)*

## Summary of Findings

*After receiving Reading Horizons instruction, every student in the study made at least one grade-level gain on the Word Recognition Assessment.*

## Background

A high school resource teacher implemented the Reading Horizons program with 32 students. Pre- and post-test scores for all of the students were gathered before and after the students had used the Reading Horizons interactive software.

## Resources

Reading Horizons interactive software and a resource teacher trained in the Reading Horizons method.

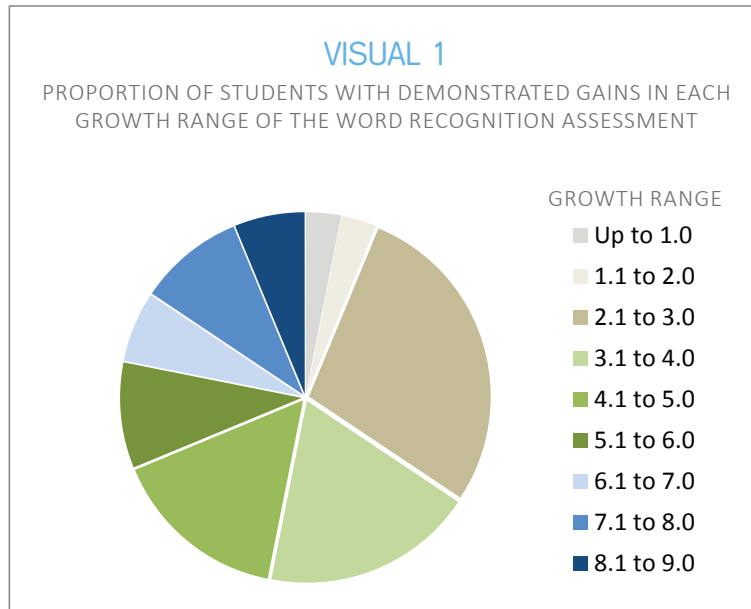
## Implementation

Thirty-two students participated in the study. Sixteen students were designated as linguistically diverse and learning English (Group 1), and 16 students were receiving special education services (Group 2).



Outcomes

Gains on the Word Recognition Assessment were demonstrated by every student in the study (Visual 1).



Group 1: Students enrolled in special education gained 3.5 levels on average on the Word Recognition Assessment, with a range of 1.0 to 5.6 levels (Visual 2).

Group 2: Students who are linguistically diverse gained 5.3 levels on average, with a range of 2.1 to 9.0 levels (Visual 2).

**VISUAL 2**  
WORD RECOGNITION SCORES AND GAINS (INCLUDING RANGES)

	PRE-SCORE AVERAGE [RANGE]	POST-SCORE AVERAGE [RANGE]	END-GAIN AVERAGE [GAIN]
GROUP 1: SPECIAL EDUCATION	5.54 [2.0 to 11.0]	9.05 [5.0 to 12.0]	3.51 [1.0 to 5.6]
GROUP 2: LINGUISTICALLY-DIVERSE	3.43 [0.3 to 8.5]	8.68 [3.8 to 12.0]	5.25 [2.1 to 9.0]
ALL STUDENTS	4.48 [0.3 to 11.0]	8.86 [3.8 to 12.0]	4.38 [1.0 to 9.0]

# AVALON HIGH SCHOOL

**TYPE OF STUDY**

*Pre-/Post-*

**TYPE OF SCHOOL**

*Public*

**POPULATION OF STUDENTS**

*Special Education*

**GRADE LEVEL**

*High school*

**LENGTH OF DATA COLLECTION**

*7 months*

**LOCATION**

*Western United States,  
Pacific Region*

**POPULATION OF CITY**

*7,456 people*

**SOCIO-ECONOMIC STATUS**

*20% of total enrollment qualified  
for free or reduced lunch*

**NUMBER OF SCHOOLS**

*1 school*

**NUMBER OF STUDENTS**

*12 students*

**READING HORIZONS MATERIALS**

*Interactive software*

**ASSESSMENT TOOLS**

*Word Recognition Assessment in  
Reading Horizons software  
(See the note on p.6 for more  
information regarding this  
assessment.)*

## Summary of Findings

*High school students receiving special education services were able to close gaps in reading abilities with Reading Horizons instruction.*

## Background

The Reading Horizons interactive software was used with twelve high school students receiving special education instruction.

## Resources

Reading Horizons interactive software.

## Implementation

Using the Word Recognition Assessment in the Reading Horizons software to gauge progress, twelve students receiving special education services used the Reading Horizons software over the course of seven months.

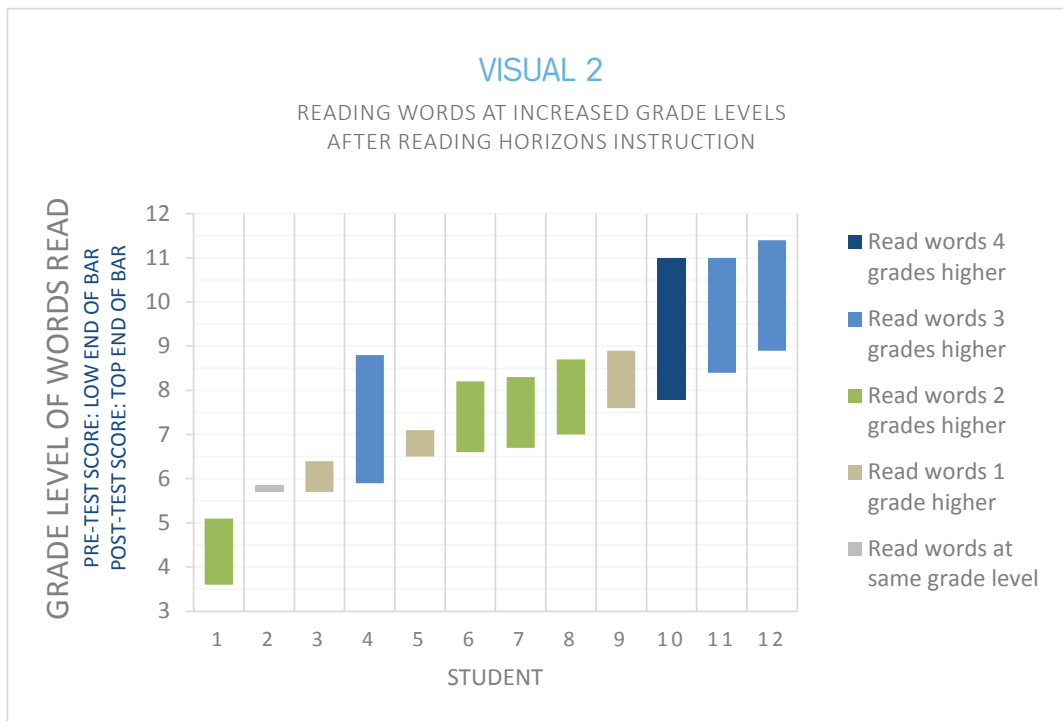
Outcomes

92% of students demonstrated gains on the Word Recognition Assessment following Reading Horizons instruction. Students averaged 1.7 levels of gain after seven months of Reading Horizons instruction (Visual 1).

VISUAL 1 AVERAGE SCORES AND AVERAGE GAIN BEFORE AND AFTER READING HORIZONS INSTRUCTION	
WORD RECOGNITION ASSESSMENT – HIGH SCHOOL SPECIAL EDUCATION	
AVERAGE PRE-SCORE [RANGE]	6.7 [3.6 to 8.9]
AVERAGE POST-SCORE [RANGE]	8.4 [5.1 to 11.4]
AVERAGE GAIN [RANGE]	1.7 [0.0 to 3.2]

After seven months of Reading Horizons instruction, grade level of words read at post-test compared to pre-test increased (Visual 2):

- Three students read words one grade higher.
- Four students read words two grades higher.
- Three students read words three grades higher.
- One student read words four grades higher.



High school students with reading delays were able to close gaps with Reading Horizons instruction:

*Words read at high school level:*

- Pre-test: No students read words at a high school level.
- Post-test: 25% of students read words at a high school level.

*Words read at an eighth grade level:*

- Pre-test: 16% of participants read words at an eighth grade level or higher.
- Post-test: 58% of participants read words at an eighth grade level or higher.

*One student progressed from elementary level at pre-test to middle school level at post-test.*

# LIONEL MIDDLE SCHOOL

**TYPE OF STUDY**

*Pre-/Post-*

**TYPE OF SCHOOL**

*Public*

**POPULATION OF STUDENTS**

*Linguistically diverse (ELL)*

**GRADE LEVEL**

*Middle school, grades 7-8*

**LENGTH OF DATA COLLECTION**

*Summer school session (6 weeks)*

**LOCATION**

*Southern United States,  
West South Central Region*

**POPULATION OF CITY**

*582,072 people*

**SOCIO-ECONOMIC STATUS**

*87% of total enrollment qualified  
for free or reduced lunch*

**NUMBER OF SCHOOLS**

*1 school*

**NUMBER OF STUDENTS**

*15 students*

**READING HORIZONS MATERIALS**

*Direct instruction and  
interactive software*

**ASSESSMENT TOOLS**

*Word Recognition Assessment in  
Reading Horizons software  
(See the note on p.6 for more  
information regarding this  
assessment.)*

## Summary of Findings

*Linguistically diverse middle school students gained an average of 2.5 levels on the Word Recognition Assessment after six weeks of Reading Horizons instruction during a summer school program.*

## Background

A school district in the southern United States implemented a pilot program to track the effectiveness of Reading Horizons direct instruction and computer courseware. Fifteen middle school students participated in a six-week ELL program over the summer, during which they received Reading Horizons instruction. All participants were linguistically diverse and learning English.

## Resources

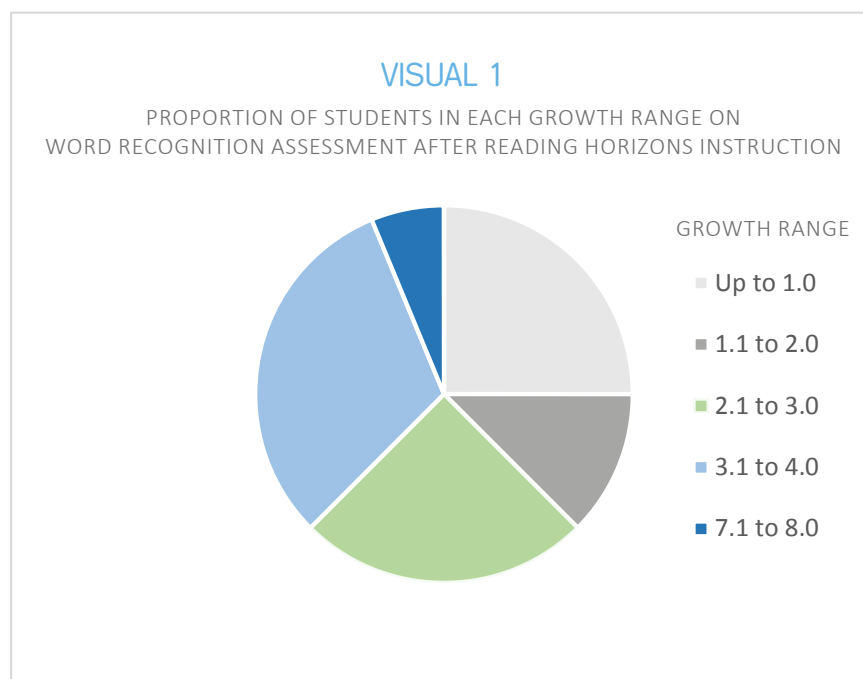
Reading Horizons direct instruction, Reading Horizons interactive software, and a teacher trained in the Reading Horizons method.

## Implementation

The Reading Horizons program was administered for one hour a day, four days a week, for six weeks.

## Outcomes

- At the end of the six week program, students demonstrated an average gain of 2.6 levels on the Reading Horizons Word Recognition Assessment. Gains for all students ranged from zero to eight levels.
- On average, students began the program reading words at level 3.3 [range: 0.6 to 6.3]; after six weeks, the average increased to level 5.9 [range: 0.6 to 12.0].
- A visual representation of student gains is provided in Visual 1.
- Based on the outcomes of this pilot program, several elementary and middle schools in the participating district adopted and began implementation of the Reading Horizons program.



**NOTE:** Even gains up to one year were significant as these gains were demonstrated in six weeks (the length of the pilot program).

# MILLINGTON YOUTH CENTER

## TYPE OF STUDY

*Pre-/Post-*

## TYPE OF SCHOOL

*Residential treatment center*

## POPULATION OF STUDENTS

*Special needs;  
linguistically-diverse (ELL);  
challenging behavior*

## GRADE LEVEL

*Middle and high school/  
Adolescent, ages 12 - 18*

## LENGTH OF DATA COLLECTION

*5 months*

## LOCATION

*Western United States,  
Mountain Region*

## POPULATION OF CITY

*104,449 people*

## NUMBER OF SCHOOLS

*1 school*

## NUMBER OF STUDENTS

*29 students*

## READING HORIZONS MATERIALS

*Interactive software*

## ASSESSMENT TOOLS

*Word Recognition Assessment  
and Most Common Words  
Assessment in the Reading  
Horizons software  
(See the note on p.6 for more  
information regarding this  
assessment.)*

## Summary of Findings

*Medical and educational needs of participants had been a barrier to their academic progress. Use of Reading Horizons interactive software with this population of students contributed to ability to read words of increasing difficulty and an ability to read more words on lists of most common words.*

## Background

This residential youth facility was established to meet the needs of adolescents with medical issues and academic challenges. The participants in the study were identified with at least one, and frequently a combination, of the following: intellectual disability, low IQ, suicidal, bipolar, ADD, aspergers, conductive hearing loss, fetal alcohol syndrome, speech and language disorder, and low retention. Some students were also linguistically-diverse. Needs resulted in low attendance for some participants. Most participants in the study had a history or reading difficulties and challenging behavior. Most participants began with at least a two grade-level deficit in reading skills.

## Resources

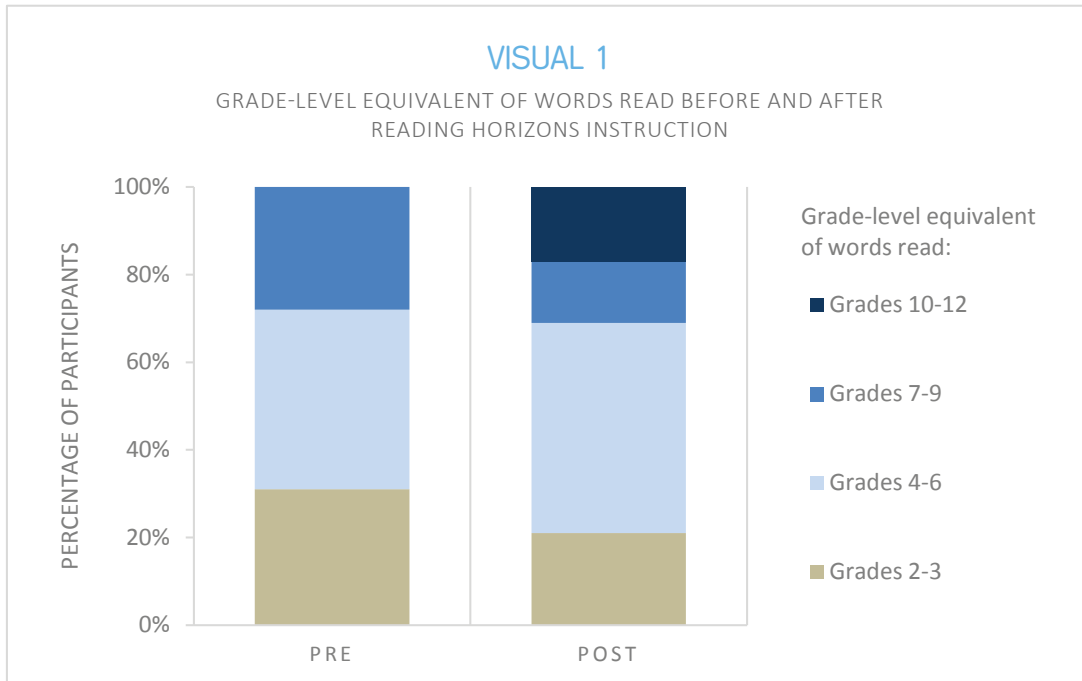
Reading Horizons interactive software.

## Implementation

Reading Horizons interactive software was implemented with participants. The Word Recognition Assessment and the Most Common Words Assessment were administered before and after software use. The Word Recognition Assessment provides students an opportunity to read word lists of increasing difficulty and receive a score based on corresponding grade equivalents. Levels on the test range from 0.0 to 12.0. The Most Common Words Assessment score is the percentage of sight words and high-frequency words read correctly on the list.

### Outcomes

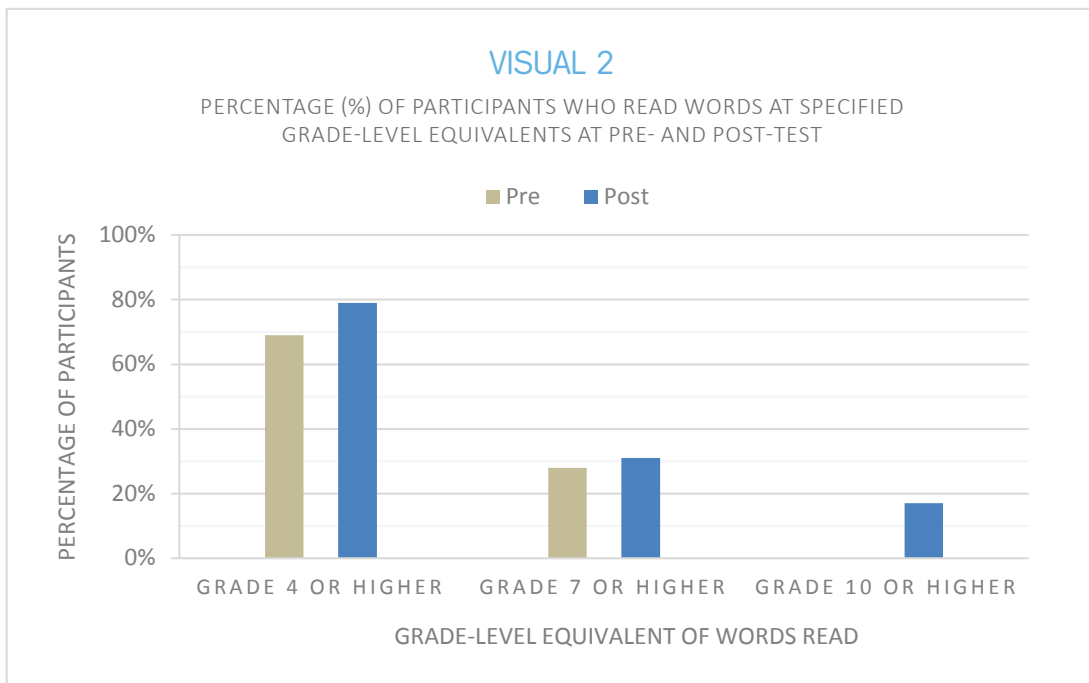
Comparison of data before and after Reading Horizons instruction shows movement from lower grade equivalents to higher grade-level equivalents of words read by participants on the Reading Horizons Word Recognition Assessment (Visual 1).



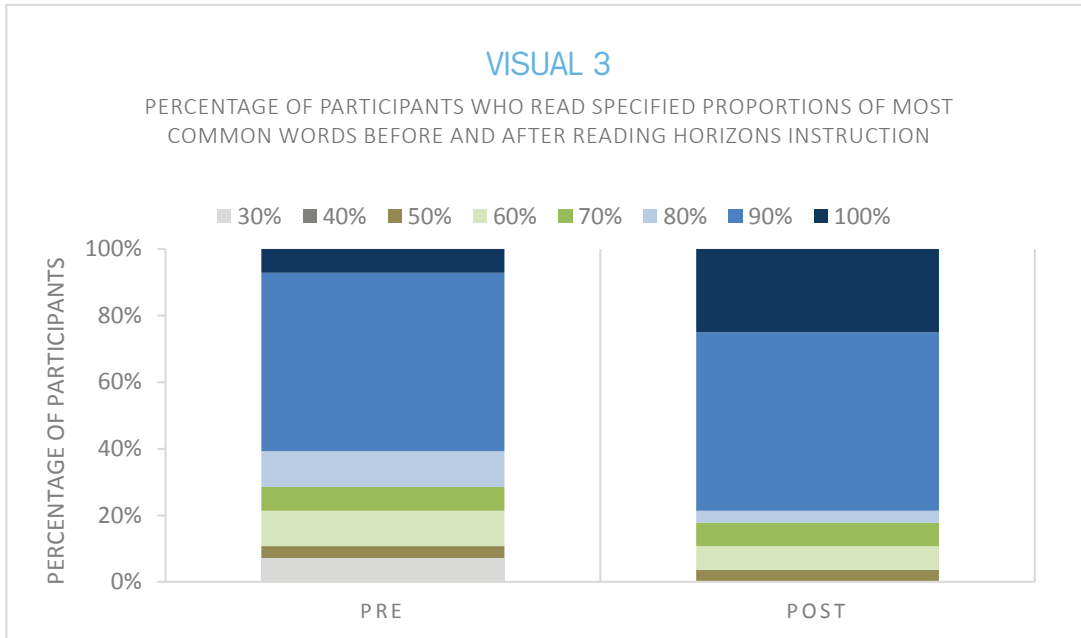


Visual 2 depicts word reading outcomes in more detail:

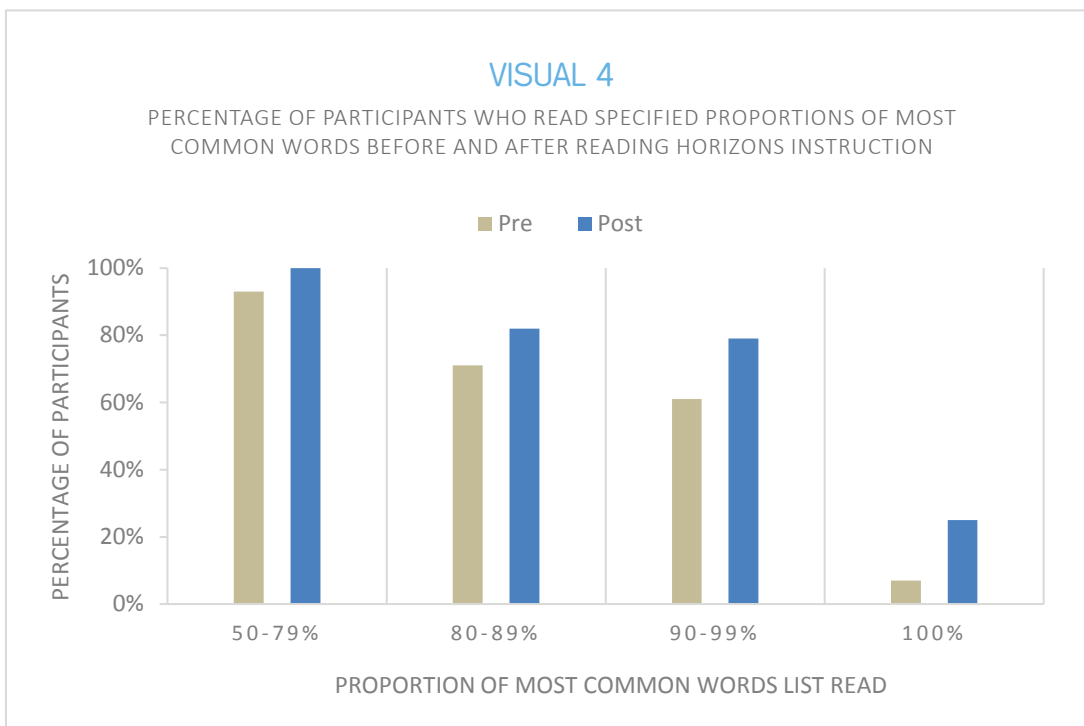
- More students read words at fourth grade level or higher (pre: 69%; post: 79%).
- More students read words at seventh grade level or higher (pre: 28%; post: 31%).
- More students read words at tenth grade level or higher (pre: 0%; post: 17%).
- The percent of students who could not read words above an early elementary level (grades 2–3) decreased from 30% at pre-test to 20% at post-test.



Before Reading Horizons instruction, slightly more than 60% of participants were able to read 90% of words on the Most Common Words Assessment. After Reading Horizons instruction, nearly 80% of participants could read at least 90% of the listed Most Common Words (Visual 3).



After Reading Horizons interactive software use, the proportion of students who could read 100% of the words on the Most Common Words Assessment increased from 7% to 25% (Visual 4).



# BAILEY MIDDLE SCHOOL

## TYPE OF STUDY

*Pre-/Post-*

## TYPE OF SCHOOL

*Public*

## POPULATION OF STUDENTS

*Struggling readers within a general education population; some students (23%) were deemed eligible for special education instruction prior to the start of the program*

## GRADE LEVEL

*Middle school, grades 6-8*

## LENGTH OF DATA COLLECTION

*1 school year*

## LOCATION

*Southern United States,  
West South Central Region*

## POPULATION OF CITY

*11,320 people*

## SOCIO-ECONOMIC STATUS

*63% of total enrollment qualified for free or reduced lunch*

## NUMBER OF SCHOOLS

*1 school*

## NUMBER OF STUDENTS

*185 students*

## READING HORIZONS MATERIALS

*Reading Horizons Software and  
Direct Instruction Materials*

## ASSESSMENT TOOLS

*Measures of Academic Progress (MAP®); AIMSweb® MAZE*

## Summary of Findings

*Following Reading Horizons instruction, underperforming middle school students improved reading skills as measured by nationally normed tests.*

## Background

A middle school resource teacher implemented the Reading Horizons program with 185 students. Pre- and post-test scores for all of the students were gathered before and after the students had used the Reading Horizons interactive software.

## Resources

Reading Horizons software and direct instruction materials, multiple assessments, and a teacher trained in the Reading Horizons method.

## Implementation

Bailey Middle School used multiple assessments, such as KPREP, Discovery Education, and MAP, to identify at-risk students. It began using Reading Horizons as an intervention for 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students in the bottom 10<sup>th</sup> percentile. The students used the program daily and stayed in the program until they tested above the 10<sup>th</sup> percentile or tested out of the program.

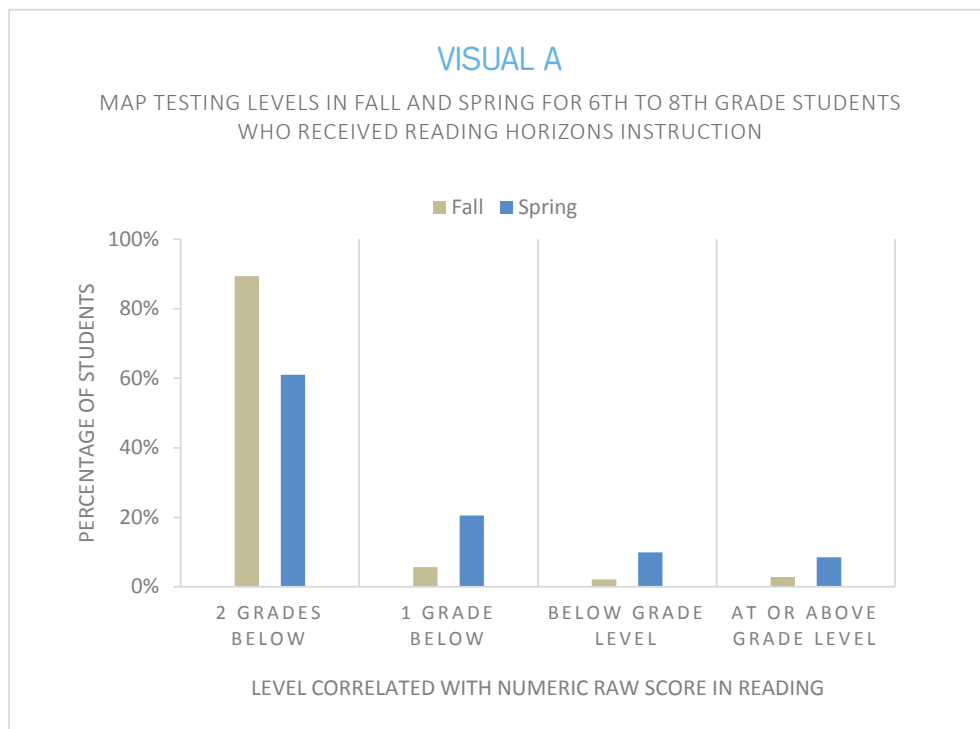
Outcome data was recorded for 185 students who received Reading Horizons instruction during their 6<sup>th</sup>, 7<sup>th</sup>, or 8<sup>th</sup> grade school year. MAP and AIMSweb MAZE tests were administered at the start (fall), middle (winter), and end (spring) of the school year. Some students moved during the study and others had data missing. MAP scores for all three data points were reported for 141 of the students. Complete AIMSweb MAZE data was reported for 157 of the students.

Outcomes

**Measures of Academic Progress (MAP) Testing**

**Assessment Description:** Numeric scores are categorized into levels drawn from national normative data: above grade level, at grade level, and below grade level. Below grade level data is broken into 3 sub-categories: Below, 1 grade below, and 2 grades below. The benchmark changes during the school year, so students who demonstrate no change in their numeric scores from the start to the end of the school year may end at a lower level than the one in which they started.

- For the 141 students with complete MAP data, the average group gain from fall to spring was 10.4 points.
- 84.4% of students demonstrated a gain in their fall to spring scores; 17.6% of this subgroup were deemed eligible for special education services prior to the beginning the program.
- Of the 14.2% of students whose scores declined from fall to spring, 40% were categorized as needing special education services prior to the start of the program.
- Initial scores for 89.4% of students fell within the lowest category (2 grades below). After a year of Reading Horizons instruction, 28.4% of that group had spring scores that fell within a higher level (Visual A).



- 34% of the students (48) had a spring score at a higher level than their fall score. Of those students, 58.3% gained one level, 20.8% of students' scores increased by two levels, 12.5% of students increased their scores three levels, and 8.3% of this subgroup gained four levels by the end of the year.
- Twenty-two students gained a level at mid-year testing (fall to winter); however, when the benchmark increased again at the end of the year, six of them were unable to retain the level gained, and they finished the year in the same level in which they began.

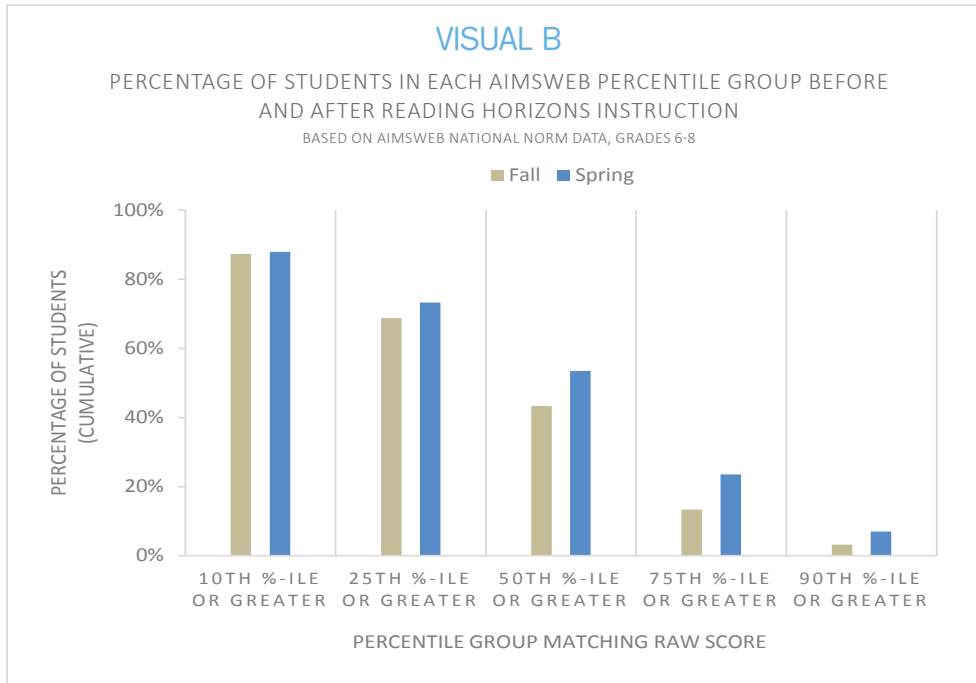
### **AIMSweb MAZE Assessment in Reading**

**Assessment Description:** *The AIMSweb MAZE assessment, although affiliated with a curriculum publisher, is not program-specific; it is a valid and reliable tool for assessing students regardless of the instructional program implemented. AIMSweb MAZE is a test of reading comprehension. National and aggregate norms are available for each school year, the national norms being slightly higher than the aggregate.*

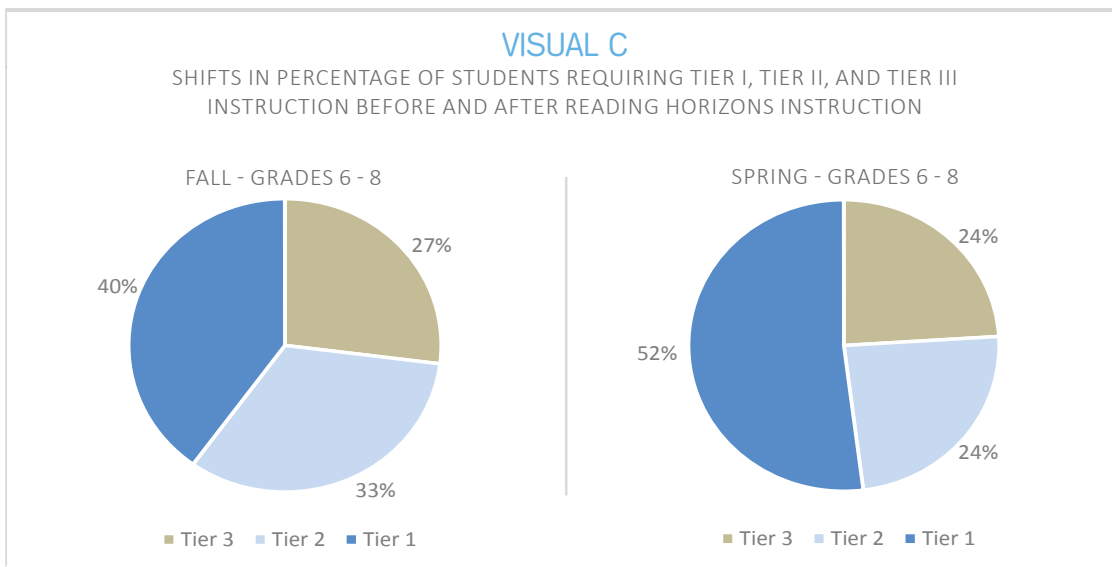
*This class's data were compared to national norms for the same year in which the program was implemented. Student raw scores can be compared to norm scores at the 10<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, and 91<sup>st</sup> percentiles.*

*In addition, the publisher provides data on Rate of Improvement (ROI), by which students' increase or decrease in reading comprehension skills can be compared to students with similar fall scores. ROI data is provided by percentile for each of 5 groups: Very Low (students with fall scores at or below the 10<sup>th</sup> percentile); Low (fall scores in the 11<sup>th</sup>-25<sup>th</sup> percentile); Average (26<sup>th</sup>-75<sup>th</sup> percentile); High (76<sup>th</sup>-90<sup>th</sup> percentile); and Very High (91<sup>st</sup> percentile and above). Additionally, cut-off scores that correlate with tiers of instruction yield information regarding the intensity of instruction that will likely produce the most benefit for students.*

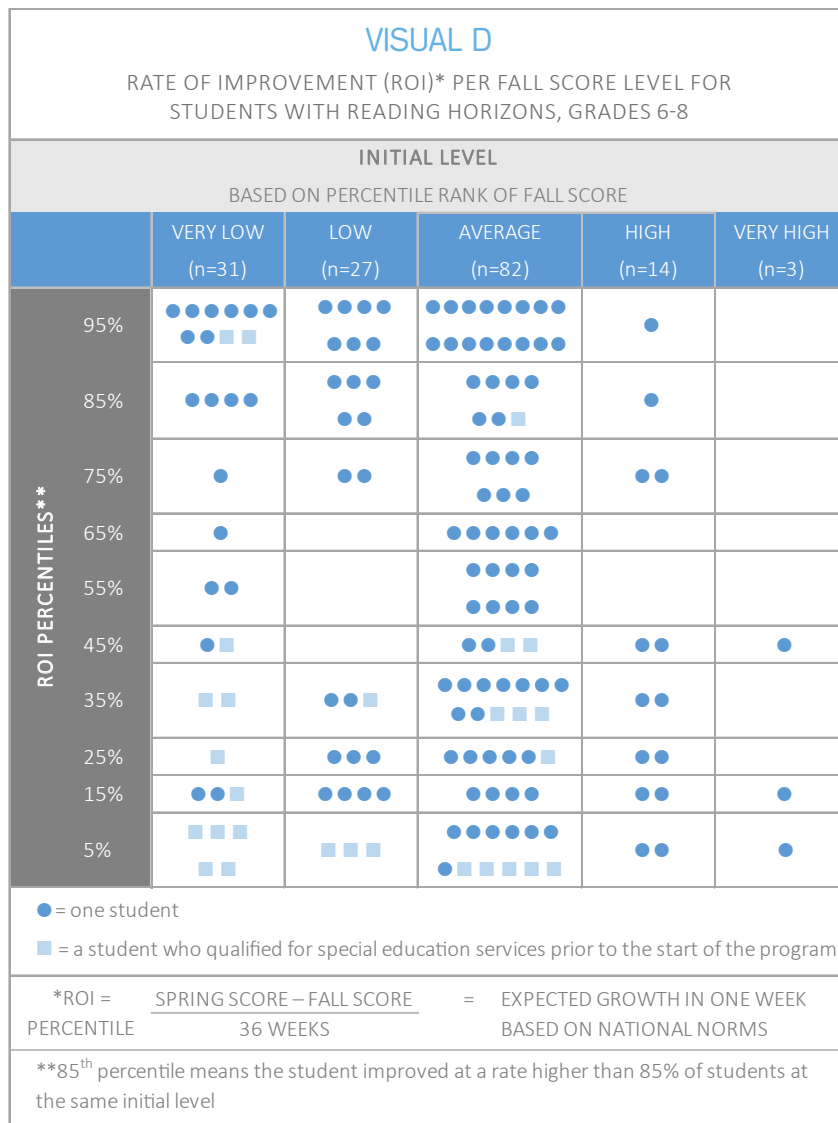
- 78% of students increased their AIMSweb MAZE scores from fall to spring; 13% of this subgroup were deemed eligible for special education services prior to beginning the program.
- Scores for 3% of students remained the same.
- Spring scores for 19% of students decreased compared to their fall scores; 37% of this subgroup were deemed eligible for special education services prior to the start of the program.



- Students whose initial scores indicated they would benefit from or require intensive instruction (Tier III) decreased to less than a quarter of the participants by the end of the study (Visual C).
- Students whose initial scores indicated they would benefit from or require strategic instruction (Tier II) also decreased to less than a quarter of participants by the end of the study (Visual C).
- Students whose initial scores indicated they would benefit from baseline instruction (Tier I) increased from 40% to 52%; by the end of the year, more than half of the participants were reading at a level correlated with success in Tier I instruction (Visual C).



- Eighty students (51%) progressed at an average rate or better compared to the national norms of students in their same initial level (as determined by fall scores) (Visual D).  
**NOTE:** Initial level is determined by fall score (Very Low=initial score within the 10<sup>th</sup> percentile and below; Low= 11<sup>th</sup>-25<sup>th</sup> percentile; Average= 26<sup>th</sup>-75<sup>th</sup> percentile; High=76<sup>st</sup>-90<sup>th</sup> percentile; Very High=91<sup>st</sup> percentile and above).
- The reading skills of 46 students (29%) improved at rates that correlate with closing the achievement gap (between the 50<sup>th</sup> and 85<sup>th</sup> percentile) (Visual D).
- Thirty-four students (22%) demonstrated rates of improvement at the 95<sup>th</sup> percentile, which means that during one school year, their reading scores improved at rates that only the top 5% of students achieved; students with this ROI are known as the “Ambitious” group (>85<sup>th</sup> percentile) (Visual D).
- Of the 49% of students who progressed at a below average rate, about a third of them (32.4%) qualified for special education services, and based on individual need, may have had an expected rate of progress differing from the trend of the national norm data (Visual D).





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