

IMPLEMENTATION & RESULTS

Princeton
SCHOOL DISTRICT

Research Study

PRINCETON SCHOOL DISTRICT

TYPE OF STUDY

Pre-/Post-

TYPE OF SCHOOL

Public

POPULATION OF STUDENTS

Special education

GRADE LEVEL

Elementary (grades 2 – 4)

LENGTH OF DATA COLLECTION

1 school year

LOCATION

*Midwestern US,
East North Central Region*

POPULATION OF CITY

1,202 people

SOCIO-ECONOMIC STATUS

*49% of total enrollment qualified
for free or reduced lunch*

NUMBER OF SCHOOLS

1 school

NUMBER OF STUDENTS

5 students

ASSESSMENT TOOLS

*Accelerated Reader,
Scholastic Reading Inventory,
Dynamic Indicators of Basic
Early Literacy Skills*

Summary of Findings

All students made gains in reading skills during Reading Horizons instruction as measured by three different assessments administered pre-to-post instruction. All assessments used in the study have moving benchmarks from the beginning to the end of the school year. Even within the framework of the moving benchmarks, some students in the study made significant gains, matching or exceeding what is expected for typically developing students.

Background

Five elementary school students who were receiving special education services received instruction in the Reading Horizons program for one year. Participants included one student in fourth grade, two students in third grade, and two students in second grade.

Resources

Reading Horizons method and multiple assessments.

Implementation

Scores from three assessments measured growth from pre-instruction to post-instruction. Students were assessed prior to using the program and at the end of one school year of instruction. Assessments included: (a) Accelerated Reader (AR) grade equivalents; (b) Scholastic Reading Inventory (SRI) Lexile® scores; and (c) Dynamic Indicators of Basic Early Literacy Skills (DIBELS) measuring words per minute and accuracy.

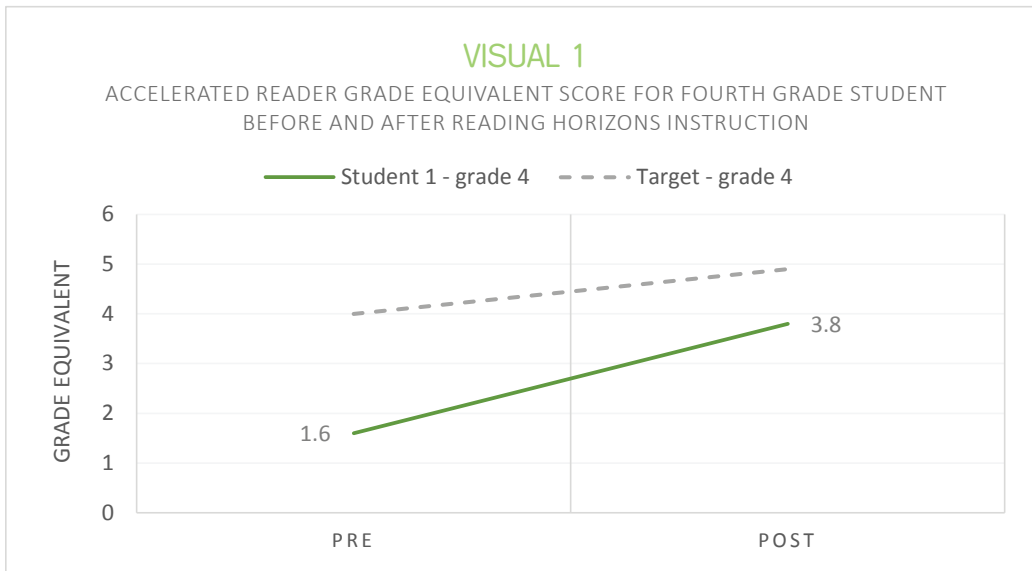
Outcomes

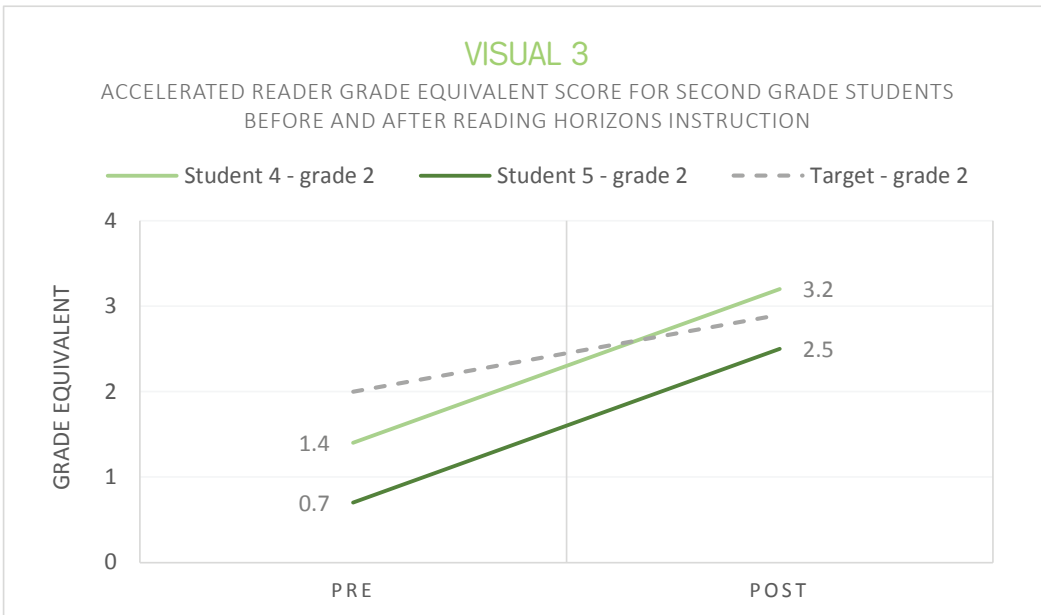
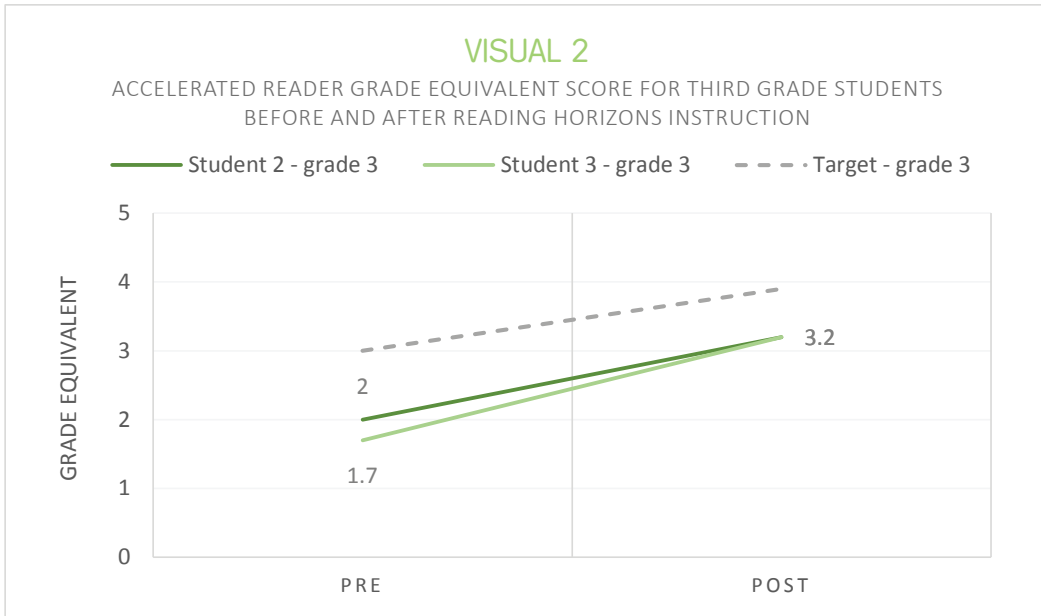
- Student 1: fourth grade
- Students 2 and 3: third grade
- Students 4 and 5: second grade

Accelerated Reader (Visuals 1–3):

Note: A score of 3.8 is equivalent to scores of students in third grade in the 8th month of the school year.

- Students closed the gap; their post-scores were nearer the scores of typical readers in their grade than were their pre-scores. (Visuals 1–3)
- Demonstrated gains in one year were 1.7 grade equivalents on average [range: 1.2–2.2].
- The post-score of student 4 exceeded the end-of-year benchmark for his/her grade.
- Although the remaining students’ post-scores did not match the end-of-year benchmark for their grade, post-scores for student 2, student 3, and student 5 did match or measure above the beginning-of-year benchmark for their grade, indicating that their scores were closer to typically-developing peers in their grade.





SRI Lexile® Scores (Visuals 4–6):

At pre-test:

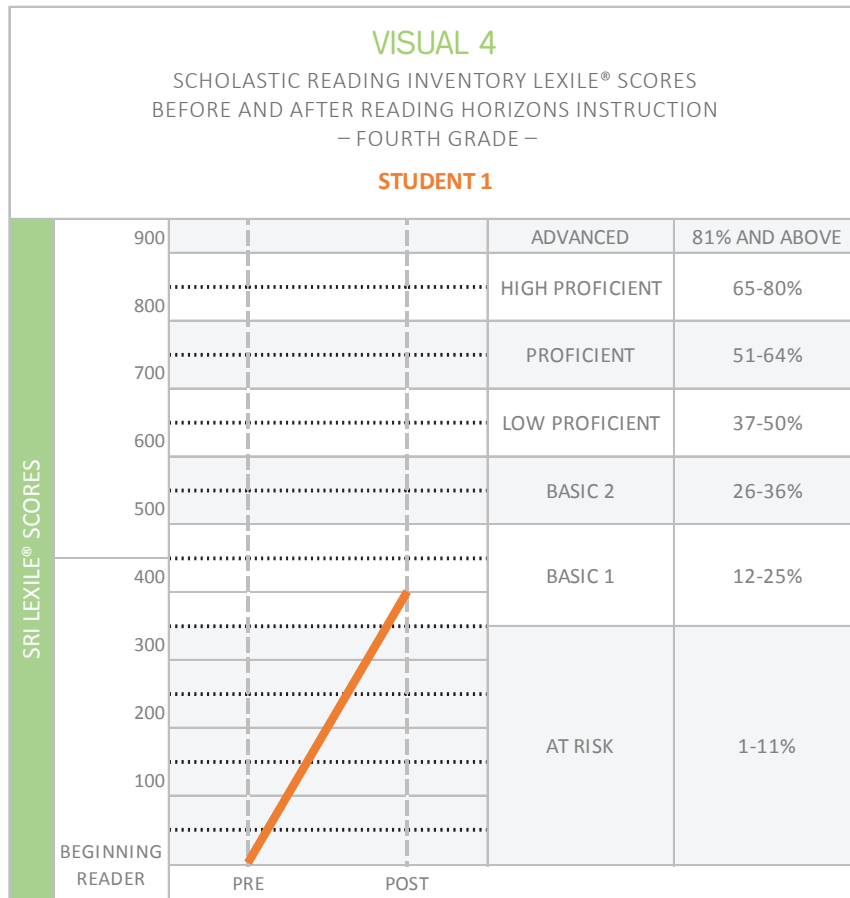
- Four students’ demonstrated reading skills were at a beginning reader level (at risk).
- One student pre-tested at the Basic 1 level.

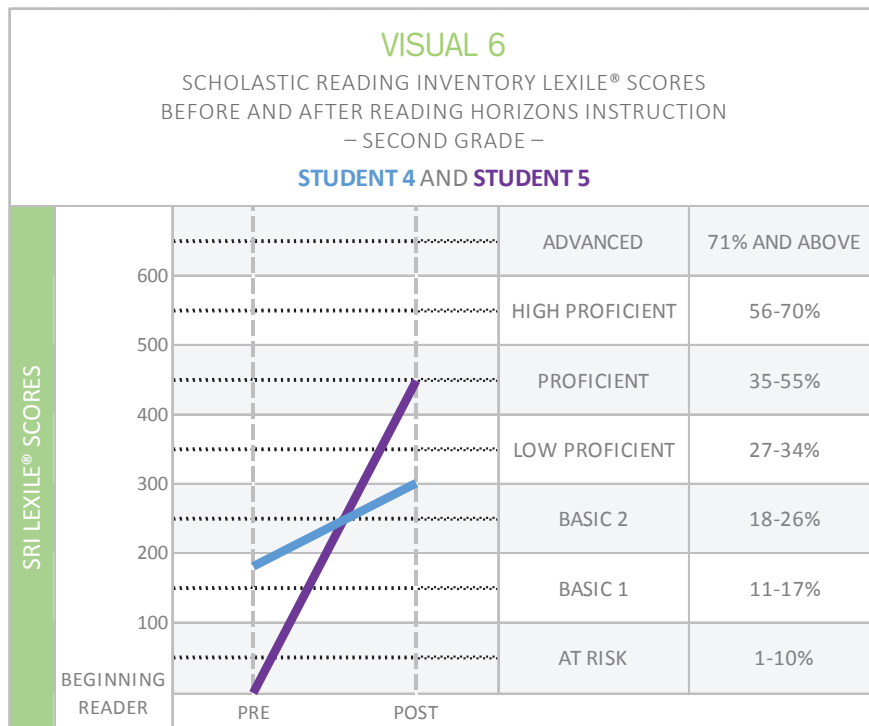
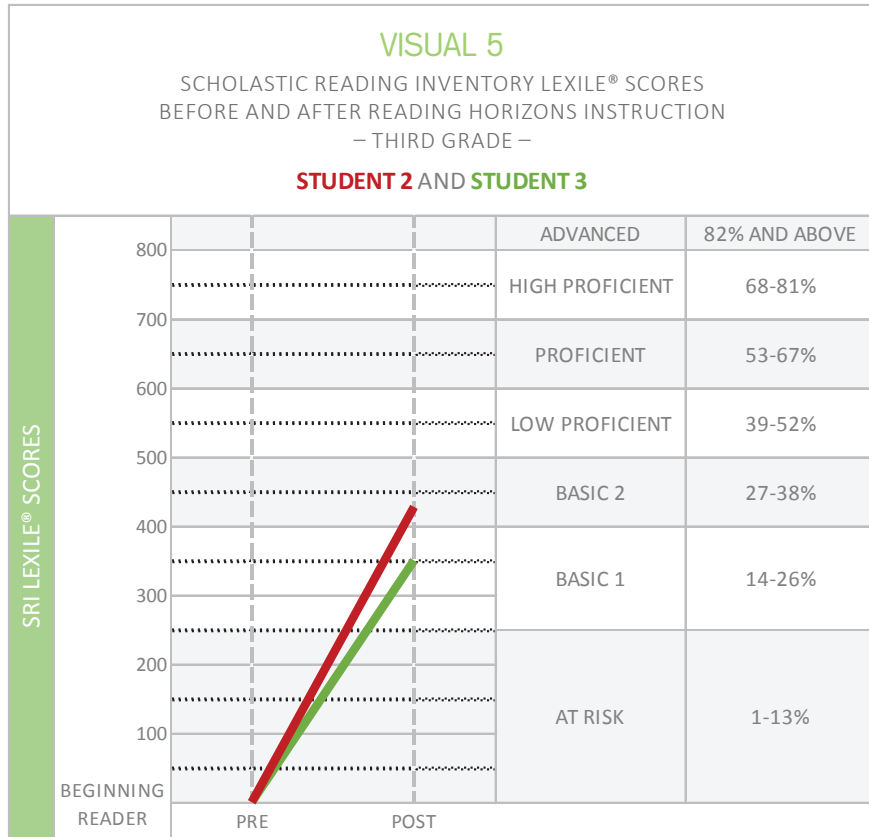
At post-test:

- Two students gained one level pre-to-post (student 1 and student 3).
- Two students gained 2 levels (student 2 and student 4).
- One student gained 4 levels (student 5).

Expected progress information (based on Scholastic’s Growth Expectations for SRI):

- Students 1 and 2 exceeded the expected progress for students in their grades who score at a beginning reader level in the fall.
- Student 3 achieved the expected progress for students in his/her grade who score at a beginning reader level in the fall.
- Expected progress information not available for students in second grade (student 4 and student 5).
- Student 4 and student 5 reached a proficient reading level for their grade (proficient and low proficient, respectively).





DIBELS (Visuals 7–9):

All students made gains on the DIBELS in both correct words per minute and accuracy (Visuals 7–9).

Correct words per minute:

- Student 1 correctly read 50 more words per minute pre to post. Correct word per minute (WPM) scores were in the “well below benchmark” range at pre- and post-test, however, progress was observed within that range. Student 1 began 33 words below the lowest score in the higher benchmark and ended only eight words below the higher level.
- Student 2 correctly read 45 more words per minute pre to post. Student 2 moved 1 level in WPM from “below benchmark” to “at or above benchmark”.
- Student 3 correctly read 69 more words per minute pre to post. Student 3 moved 1 level in WPM from “well below benchmark” to “below benchmark”.
- Student 4 correctly read 41 more words per minute pre to post. Student 4 made gains within the “at or above benchmark” level.
- Student 5 correctly read 22 more words per minute pre to post.






Accuracy:

- Student 1 increased reading accuracy by 10% pre to post, with a post-test score of 94% accuracy. Accuracy scores were in the “well below benchmark” range at pre- and post-test; however, progress was observed within that range. Student 1 began 9% below the lowest score in the higher benchmark and ended only 1% away. Therefore, with 1% more gain, student 1 would have moved one level pre to post.
- Student 2 increased reading accuracy by 45% pre to post, with a post-test score of 75% accuracy. Accuracy scores began at the lower end of the “below benchmark” range and ended only 1% away from the next level. Therefore, student 2 was 1% away from scoring in the “at or above benchmark” range in reading accuracy.
- Student 3 increased reading accuracy by 23% pre to post, with a post-test score of 98% accuracy. Student 3 moved 2 levels in accuracy – from “well below benchmark” to “at or above benchmark”.
- Student 4 increased reading accuracy by 9% pre to post, with a post-test score of 98% accuracy. Student 4 moved 1 level in accuracy – from “below benchmark” to “at or above benchmark”.
- Student 5 increased reading accuracy by 9% pre to post, with a post-test score of 89% accuracy.






VISUALS 7-9—KEY

SCORES ON THE DYNAMIC INDICATORS OF BASIC EARLY LITERACY SKILLS (DIBELS) ASSESSMENT INCLUDING BENCHMARKS BEFORE AND AFTER READING HORIZONS INSTRUCTION

KEY:

-  AT OR ABOVE BENCHMARK – LIKELY TO NEED CORE SUPPORT
-  BELOW BENCHMARK – LIKELY TO NEED STRATEGIC SUPPORT
-  WELL BELOW BENCHMARK – LIKELY TO NEED INTENSIVE SUPPORT
-  PRE-TEST SCORE TO POST-TEST SCORE MOVED ONE CATEGORY
-  PRE-TEST SCORE TO POST-TEST SCORE MOVED TWO CATEGORIES

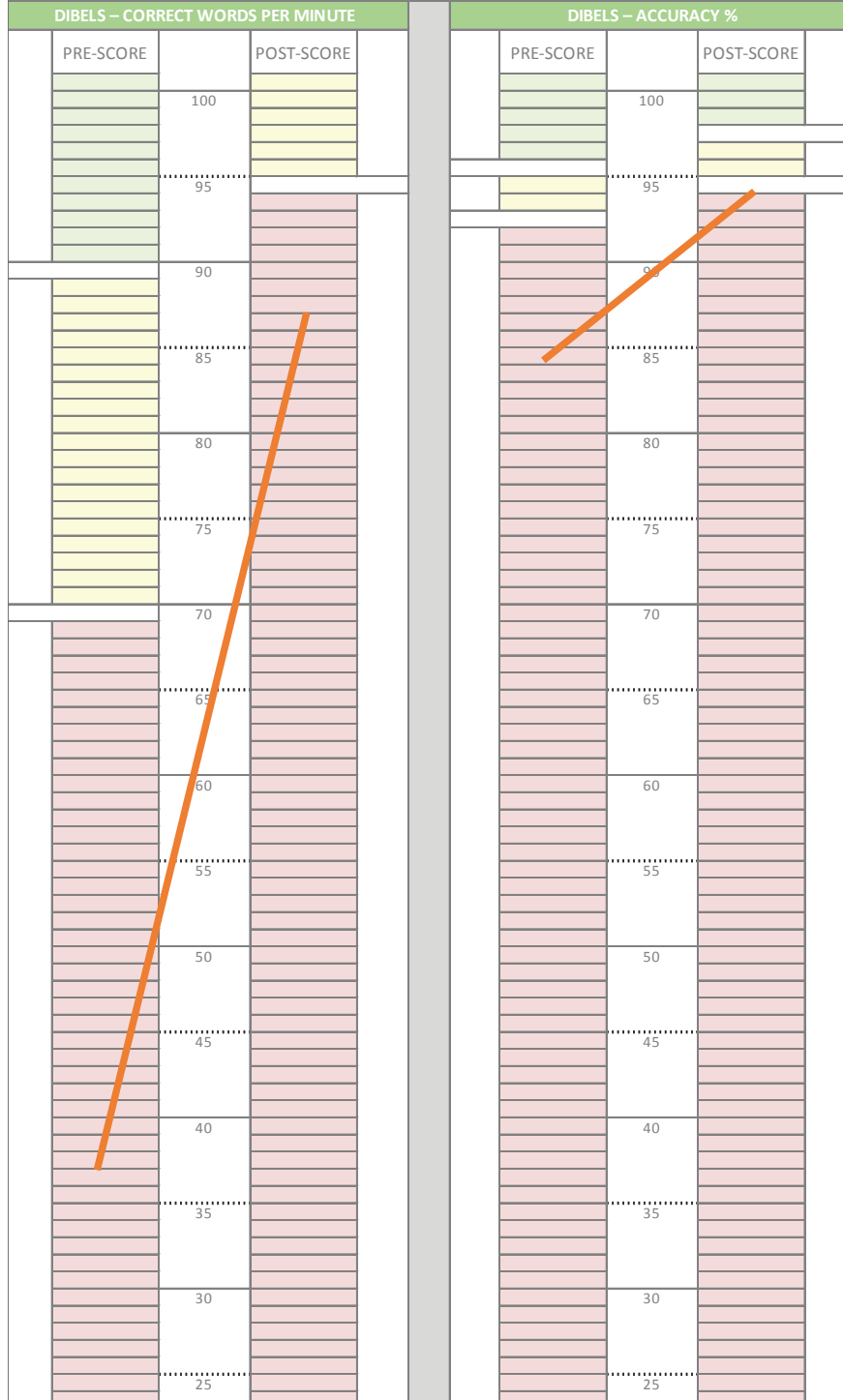
KEY:

-  STUDENT 1 – GRADE 4
-  STUDENT 2 – GRADE 3
-  STUDENT 3 – GRADE 3
-  STUDENT 4 – GRADE 2
-  STUDENT 5 – GRADE 2

VISUAL 7

DIBELS SCORES BEFORE AND AFTER READING HORIZONS INSTRUCTION—FOURTH GRADE BENCHMARKS

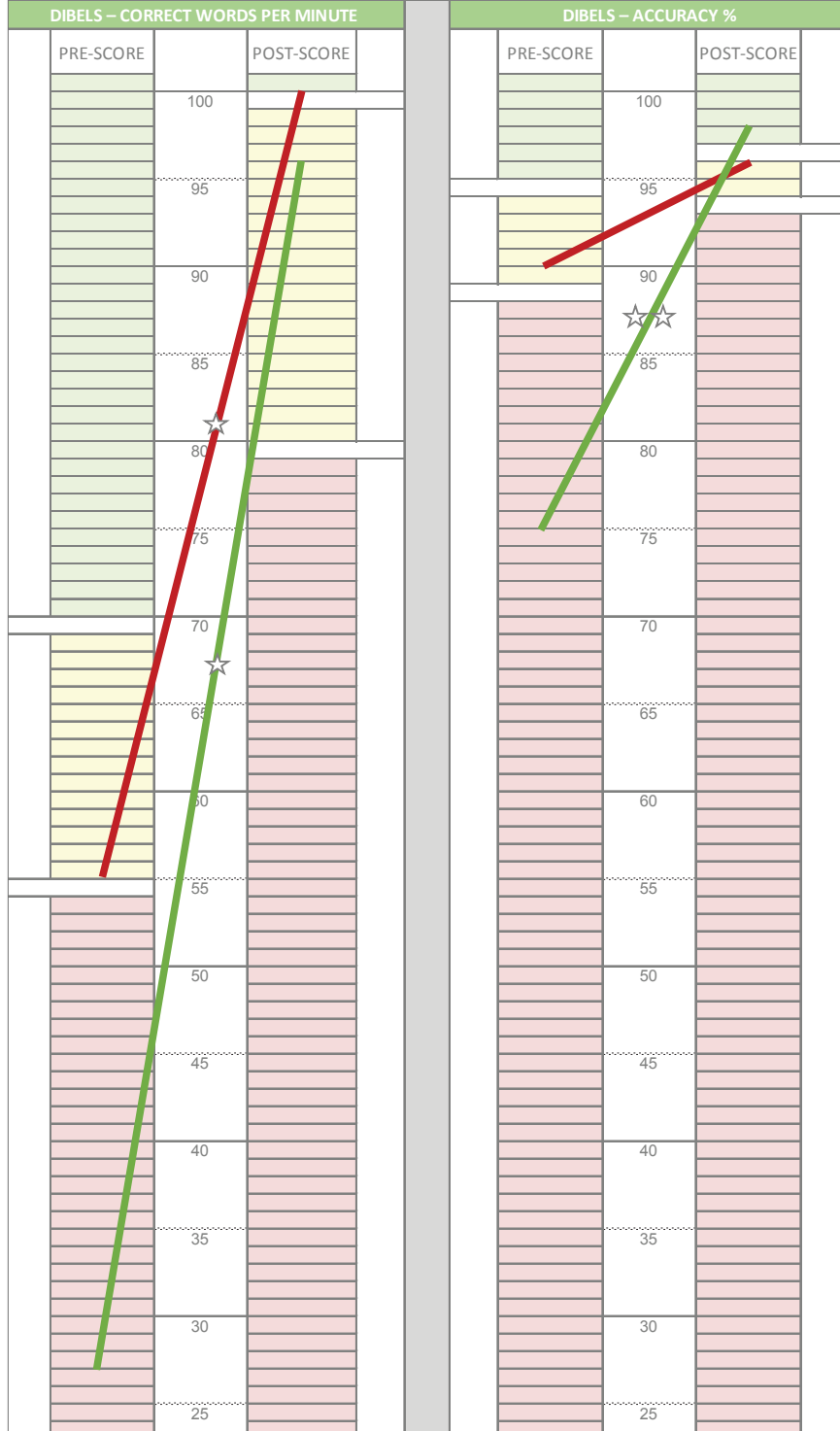
STUDENT 1



VISUAL 8

DIBELS SCORES BEFORE AND AFTER READING HORIZONS INSTRUCTION—THIRD GRADE BENCHMARKS

STUDENT 2 AND STUDENT 3



VISUAL 9

DIBELS SCORES BEFORE AND AFTER READING HORIZONS INSTRUCTION—SECOND GRADE BENCHMARKS

STUDENT 4 AND STUDENT 5

