![Reading Horizons logo]

Research Study

IMPLEMENTATION & RESULTS

Harriet
ELEMENTARY

HARRIET ELEMENTARY SCHOOL

TYPE OF STUDY
Pre-/Post-

TYPE OF SCHOOL
Public

POPULATION OF STUDENTS
Reading skills significantly below grade level

GRADE LEVEL
Early elementary (grade 2)

LENGTH OF DATA COLLECTION
1 school year

LOCATION
Midwestern Unites States, East North Central Region

POPULATION OF CITY
7,393 people

SOCIO-ECONOMIC STATUS
18% of total enrollment qualify 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
AIMSweb

Summary of Findings

Prior to the implementation of the Reading Horizons interactive software program, all participants were significantly below grade level standards and identified as "struggling readers". At the conclusion of the study, all students demonstrated a significant increase in oral reading fluency competencies. Eighty percent (80%) of participants met grade level expectations and were identified as demonstrating third grade reading readiness.

Background

As the academic rigor and performance expectations continue to increase, so does the imminent need for quality instructional interventions. Educators are continuously attempting to solve this problem by researching and implementing viable programs that meet the needs of each individual student while combating time constraints and classroom management obstacles. Teachers need to efficiently provide tools for a deeper learning experience and actively engage (student) audiences. The use of technology has greatly influenced the teaching and learning styles of today, as it has allowed for classrooms to be more dynamic and productive than ever. Teachers strive to utilize and implement quality computer-based academic programs to foster effective instruction with a focus on differentiation and individualized instruction. One challenge is to find effective programs that meet the standards of learning to address the foundational components of reading. The ultimate objective is to find a quality and effective computer-based program that provides individualized instruction and an accurate assessment component to measure student progress. This study was implemented to investigate the effectiveness of Reading Horizons interactive software with second grade struggling readers.
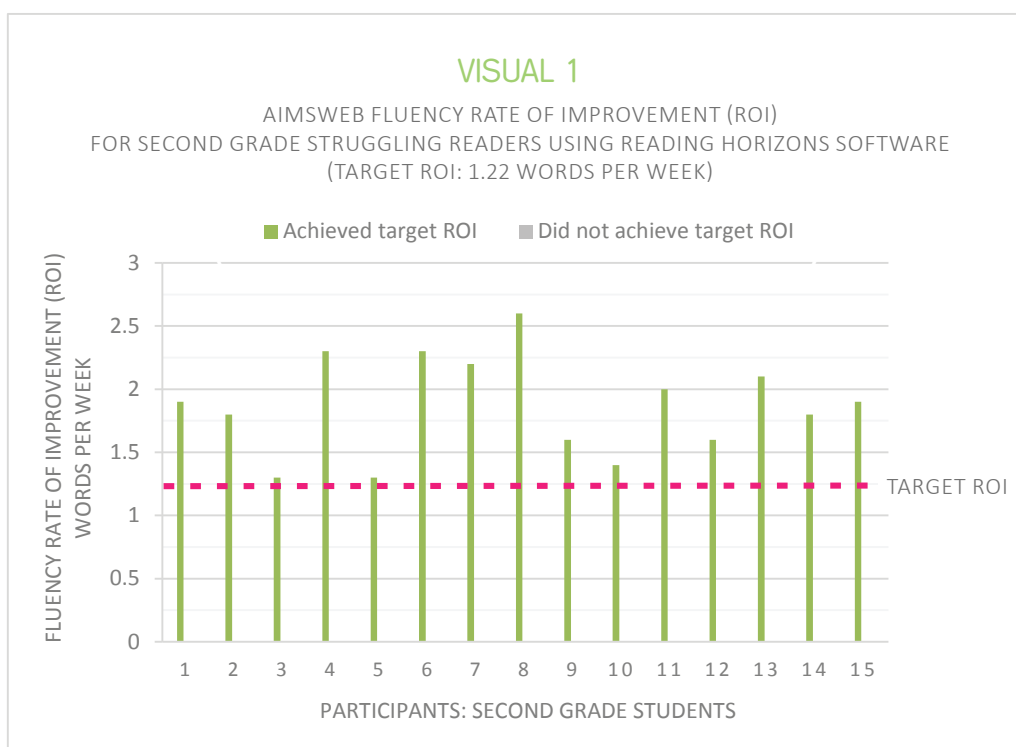
Resources

Reading Horizons interactive software.

Implementation

Fifteen second grade students who were significantly below grade level expectations according to initial screening data were chosen as participants for a 36-week study. All participants were pre-screened using AIMSweb benchmark assessments to determine a baseline rate of oral reading fluency. During the 36 weeks, students were exposed to the Reading Horizons software program for 150 minutes weekly (30 minutes daily of self-paced computer-based instruction). Students participated in weekly progress monitoring to determine frequent progress and rate of improvement. After the 36-week implementation phase, students were reassessed to determine their overall reading growth (words per minute) and rate of improvement. This was done by comparing baseline data to AIMSweb grade level expectancy with national aggregate norms in oral reading fluency and overall rate of improvement. Two strategies were implemented to increase consistency and validity: (a) an integrity log was kept for the duration of the study to validate that all participants were exposed to the intervention for at least 90% of instructional time (taking into account absences, schedules, meetings, etc.); and (b) students were supervised to ensure all students were actively working and completing course tasks and expectations.

Outcomes

According to AIMSweb aggregate norms, second grade students are expected to increase their fluency rates by 1.22 words per week. According to the data, all second grade students (100% of participants) exposed to the intervention met grade level Rate of Improvement (ROI) standards (Visual 1).

VISUAL 1

AIMSWEB FLUENCY RATE OF IMPROVEMENT (ROI)
FOR SECOND GRADE STRUGGLING READERS USING READING HORIZONS SOFTWARE
(TARGET ROI: 1.22 WORDS PER WEEK)

■ Achieved target ROI   ■ Did not achieve target ROI

According to AIMSweb national aggregate norms, all second grade students should be able to accurately decode 90 correct words in one minute. Data shows that 80% of student participants met grade level oral reading fluency (ORF) expectations (Visual 2).

VISUAL 2

AIMSWEB READING FLUENCY FOR SECOND GRADE STRUGGLING READERS BEFORE AND AFTER USE OF READING HORIZONS INTERACTIVE SOFTWARE (SECOND GRADE TARGET WORDS PER MINUTE [WPM]: 90 WPM)

SOURCE: Mendes, J. (2014). The implementation of "Reading Horizons Discovery" interactive software with struggling second grade readers. Retrieved from: personal communication on March 6, 2014.

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