

## Florida School District

# *System 44*<sup>®</sup> Students Achieve Significant Gains on State Assessment

**PROFILE**

**District:** Northeastern Florida School District

**Evaluation Period:** Fall 2008–Spring 2009

**Grades:** 6th–8th

**Model:** Daily 90 minute Model

**Assessment:** FORF, SRI, and FCAT

**IMPLEMENTATION OVERVIEW**

During the 2008-2009 school year, this Florida School district piloted *System 44* in three middle schools (a total of 9 classrooms) as an intervention to help students who failed to master basic phonics and decoding skills in the primary grades. The goal of this program was to provide intensive, engaging instruction that would help the most struggling readers achieve gains, as measured by: 1) Florida Oral Reading Fluency (FORF); 2) *Scholastic Reading Inventory* (SRI); and 3) Florida Comprehensive Assessment Test (FCAT) Reading Test.

Teachers integrated *System 44* into a 90-minute reading block. All teaching staff received one full day of training designed to provide instructional strategies, hands-on experience, and advice on how to implement the program in order to meet the individual needs of students. *System 44* was implemented in two types of classrooms. In three classrooms, a stand alone version of *System 44* was implemented. In six of the nine classrooms, *System 44* was incorporated within an existing *READ 180*<sup>®</sup> program<sup>1</sup>. In all classrooms, students were expected to use the software for

15-20 minutes per day. For the purposes of this study both models were analyzed together due to sample size constraints.

**Participants**

A total of 63 sixth-, seventh-, and eighth-grade students from three middle schools were selected to participate in the intervention program during the 2008–2009 school year based on a two-tiered screening process where students who scored “Below Basic” on the SRI also demonstrated foundational reading deficiencies on the Scholastic Phonics Inventory.

The demographic composition of *System 44* students included 76% African American, 16% White, and 8% Hispanic. Nearly 81% of students were eligible for free or reduced-price lunch and 8% were categorized as English learners. District education classification data reveals that 71% of the students were classified as having a learning, intellectual, or emotional disability, the most prevalent being “specific learning disability” (37%) and an “intellectual disability” (27%).

**Measures***Florida Oral Reading Fluency (FORF)*

The FORF includes grade-level passages that students read aloud for one minute. The score represents the number of words correct per minute (WCPM). The FORF is administered to students in grades 6–10 who have scored in Level 1 or Level 2 on the prior year’s FCAT and is administered three times each year, in the Fall, Winter, and Spring.

<sup>1</sup>For more information about *READ 180* and its instructional model, please refer to the Scholastic website: <http://teacher.scholastic.com/products/read180/>

### Scholastic Reading Inventory (SRI)

SRI measures reading comprehension by focusing on: 1) identifying details in a passage; 2) identifying cause-and-effect relationships and sequence of events; 3) drawing conclusions; and 4) making comparisons and generalizations. During test administration, the computer adapts the test continually according to student responses. Performance on the SRI is reported as a Lexile (L) scale score. Scores can range from Beginning Reader (less than 100L) to 1500L (graduate-school readers). The SRI was administered twice in order to measure growth in reading comprehension over time. The pretest was given between August and November of 2008 and the posttest in May 2009.

### Florida Comprehensive Achievement Test (FCAT): Reading Test

The FCAT Reading Test is a criterion-referenced test administered to students in grades 3–11 to measure student progress toward meeting the state benchmarks in English language arts standards. The test measures four key areas: 1) words and phrases in context; 2) main idea, plot, and purpose; 3) comparisons and cause/effect; and 4) reference and research.

The FCAT Reading Test provides vertically scaled Developmental Scale Scores (DSS) which range from

0–3000 and allow student progress to be tracked over time. The pretest was given in 2008 and the posttest in 2009.

### RESULTS

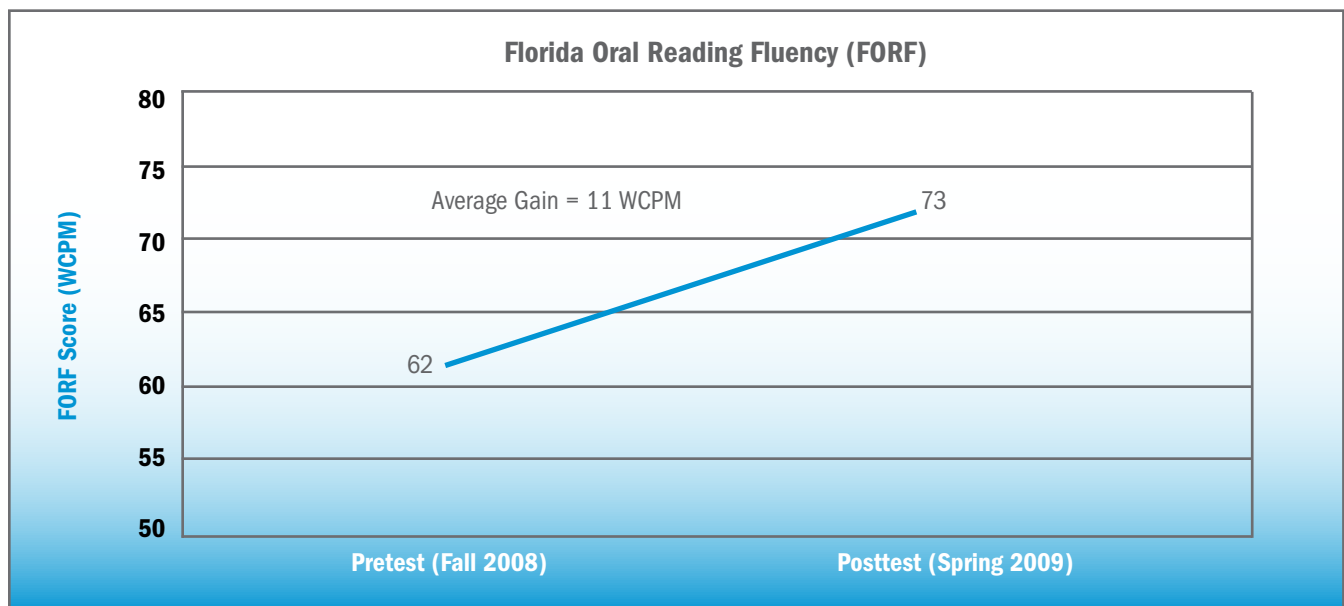
In order to measure changes in oral reading fluency, FORF data was obtained from 48 *System 44* students. Dependent t-tests revealed that *System 44* students improved, on average, from a fall pretest score of 62 words correct per minute (WCPM) to a posttest score of 73 WCPM, resulting in a statistically significant gain of 11 WCPM [ $t(47) = 3.27, p = .00$ ]. See Graph 1.

Students also exhibited improvements in their reading skills. Graph 2 shows *System 44* middle school students' performance on the SRI. Results indicate that the 52 students who had pre- and posttest SRI scores averaged a statistically significant gain of 147L over the course of the 2008-2009 school year [ $t(51)=6.37, p=.00$ ].

Consistent with these findings, *System 44* middle school students demonstrated gains on the FCAT Reading Test. Overall, the 59 middle school students who had Spring 2008 and 2009 FCAT DSS scores achieved an average pretest score of 1051 and an average posttest score of 1182, resulting in a statistically significant gain of 131 DSS points [ $t(58) = 3.61, p = .00$ ]. See Graph 3.

### Graph 1.

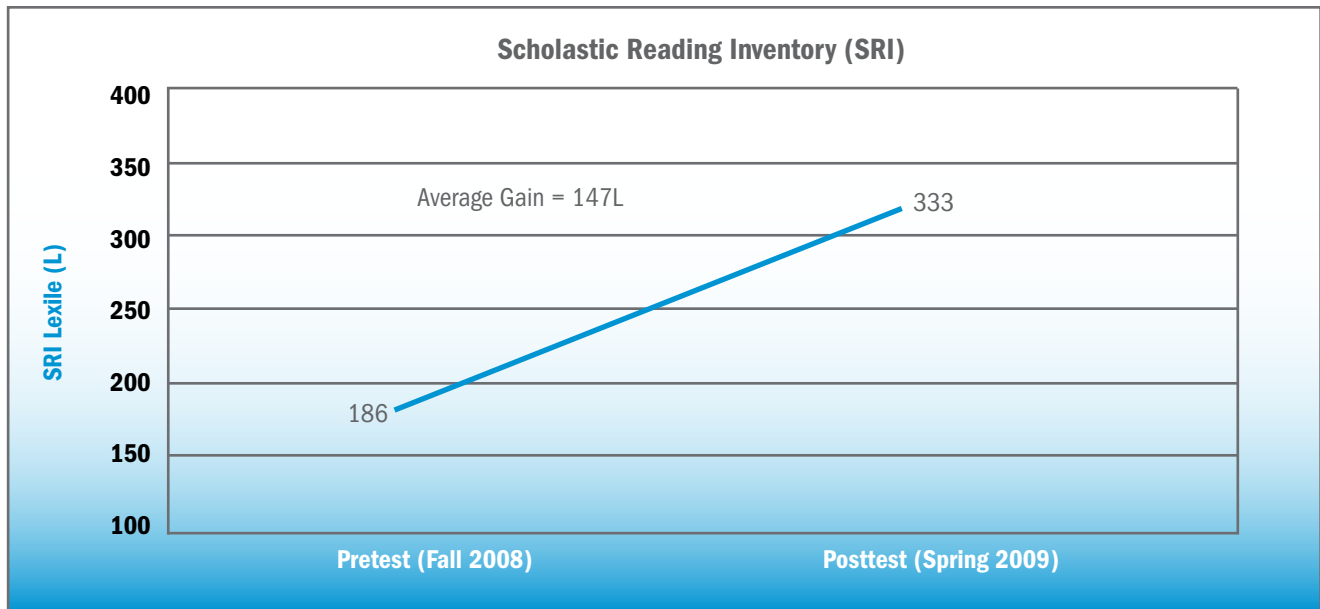
System 44 Students (N=48)  
Performance on the FORF Reading Test in Fall 2008 and Spring 2009



**Graph 2.**

System 44 Students (N=52)

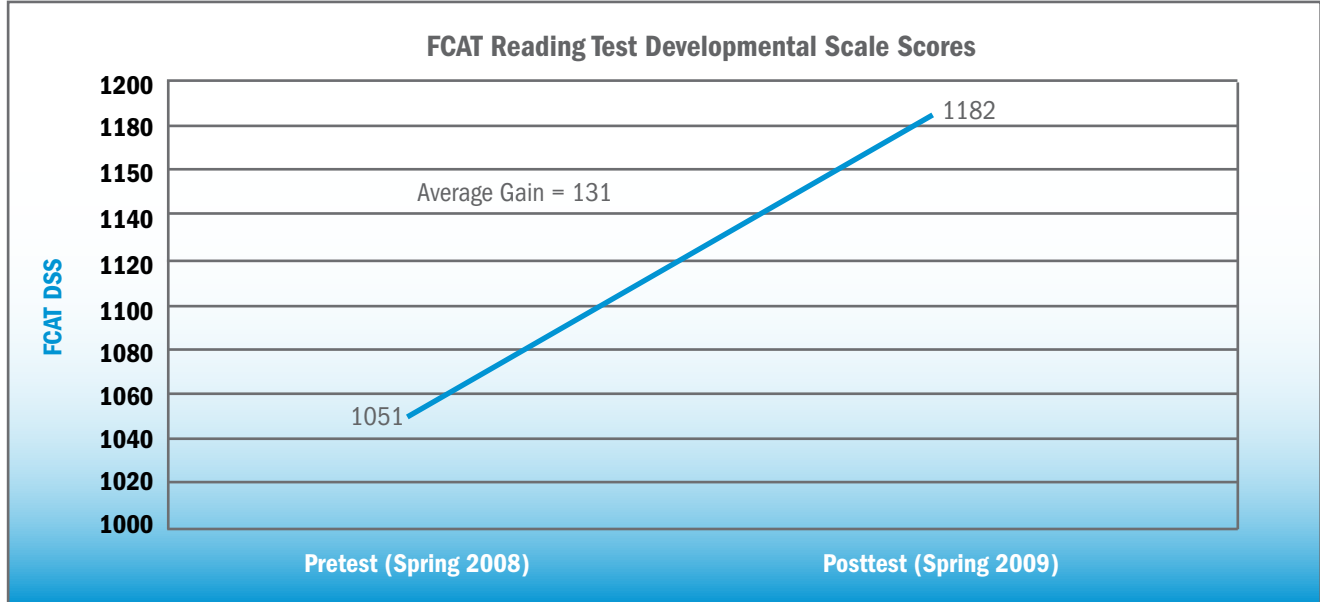
Performance on the Scholastic Reading Inventory in Fall 2008 and Spring 2009



**Graph 3.**

System 44 Students (N=59)

Performance on the FCAT Reading Test in Spring 2008 and Spring 2009



**CONCLUSION**

Middle school students who participated in *System 44* showed substantial gains on the FORF, SRI, and FCAT Reading Test. FORF data revealed that *System 44* students evidenced a statistically significant gain of 11 words correct per minute over the course of the school year. Further, findings

showed that on average, from pretest to posttest, *System 44* participants evidenced a 147L gain in performance on the SRI and a 131 DSS point gain on the FCAT. This preliminary research suggests that *System 44* is having a positive impact on students' oral reading fluency and reading comprehension.

# RESEARCH UPDATE



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