

# Case Study: High School Reading Academy Engages Readers with Computer and Audio Books

Using Start-to-Finish Books and Technologies May 2007



**Douglas McCoy, Graduation Specialist; Diane Hardenstein,  
Special Education Teacher and Kristi Bevis, School Psychologist**

## STUDENT OUTCOMES

*“50% of the students met or exceeded a growth of 1.5 reading levels.”*

*“...reading practice supported by quality technologies brought higher student achievement.”*

### **Background of Study**

In a four-month study beginning August 2004, Callaway High School in Troup County, GA developed a reading academy program to investigate the effects of using supplemental instruction to provide extra reading practice for 9th graders with deficient reading skills. The plan included empirical measures of progress, faculty tutors and a variety of technologies such as Simon S.I.O.<sup>™</sup>, WordMaker®, Start-to-Finish® books, Cornerstone Language Arts and Earobics®. This study will highlight the use of the Start-to-Finish computer books in weekly tutoring sessions to increase students' reading comprehension, fluency skills and positive reading enjoyment.

### **Strategy and Demographics**

Students were identified from the Fall 2003 ITBS composite reading scores (less than the 25th percentile) and 8th grade team recommendations. Twenty-four students completed the course and represented a diverse ethnic group from low socio-economic backgrounds. Most students were assigned two reading classes (Remedial Reading and Reading Enrichment). Faculty volunteers served as weekly reading tutors for 30 minutes of instruction within small groups.

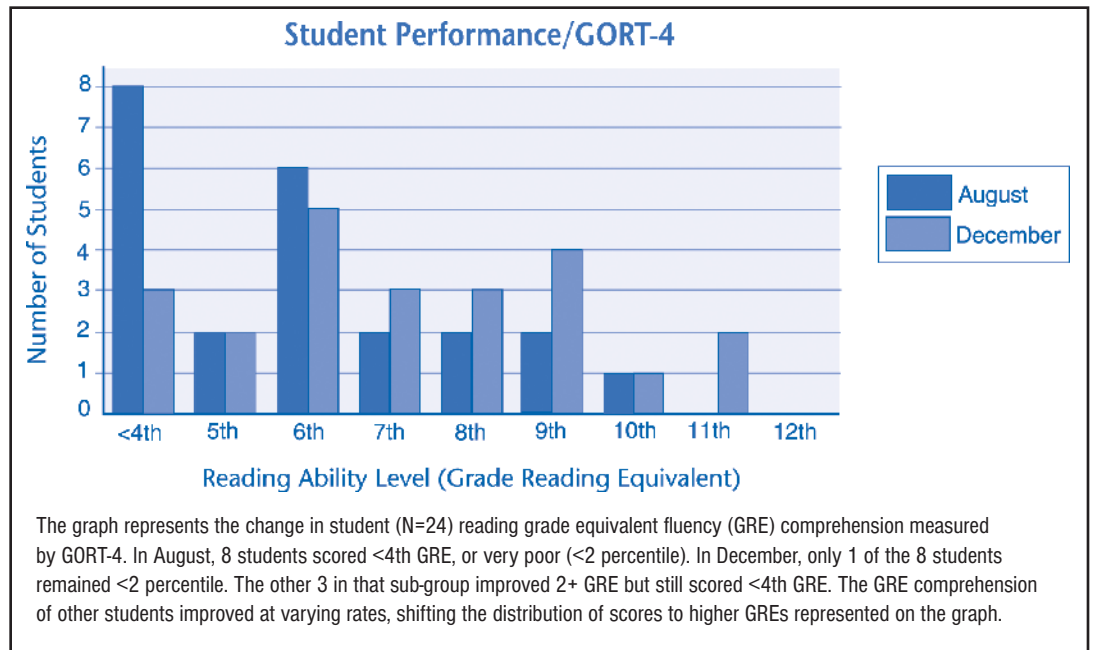
“One of our goals was to get more computers in the classroom and more educators trained to use technologies,” said Douglas McCoy, Graduation Specialist and Social Studies Teacher. “We targeted student growth of 1.5 reading levels per semester per remedial class. This target in fluency (accuracy + rate) was met or exceeded by four students. Six students met or exceeded the target in comprehension, and two students met both targets with improved competency in identifying the main idea, inferring meaning, finding details and reading with purpose through pre-reading, connection and post-reading activities.”

### **Gray Oral Reading Test – Fourth Edition (GORT-4) Measured Results**

GORT-4 was administered as a pre- and post-test at the beginning and end of the project (see chart on next page). There was no pattern regarding efficacy of one remedial class in comparison to the other. Students who took two remedial classes showed more improvement overall, inferring that reading practice supported by quality technologies brought higher student achievement.

“Our students have experienced a higher degree of success with Start-to-Finish than with other reading programs used in our school. The Don Johnston books have resulted in fewer discipline problems, a higher attention span, better comprehension, and much less frustration for the students, as well as an increase in test scores.”

“These books empower students to become independent readers and self-directed learners. The reading momentum was obvious. Students began helping other students.”



### Implementation Structure

The Start-to-Finish reading series was chosen to pique students' interest with short stories comparable to those found in standardized text. The books are written in two reading levels to engage students and to eliminate the reading frustration caused by high-level readability factors. These audio and computer books are carefully designed to improve reading comprehension through the improvement of meta-cognitive skills during independent practice.

**Students worked in a classroom with six computers to practice and improve reading competencies in:**

- Fluency
- Vocabulary
- Comprehension

“Struggling readers are resistant to remediation,” shared Diana Hardenstein, Special Education Teacher. “They feel defeated and their confidence is low. **When I discovered the Start-to-Finish books it allowed me to provide individualized instruction with minimal supervision. These books empower students to become independent readers and self-directed learners.** The reading momentum was obvious. Students began helping other students. Our library media specialist, Mrs. Sparks, observed students taking ownership of their reading and showing a real enthusiasm for reading. She started using the books in the library. Kids knew they were reading the same books as their classmates and began checking the books out. They started doing more research. The audio and narrative speech offered multiple approaches to connect students' diverse learning styles with core subject knowledge. The highlighted text helped them identify problem words and improve vocabulary.”

### Boredom Replaced with Reading Enthusiasm

Mrs. Sparks, Media Specialist for the school said, “The Start-to-Finish books have proven to be a most beneficial reading tool to capture the interest of low-level readers. **Students that once were bored and disruptive in class are now able to complete a story and answer questions.** Our students have experienced a higher degree of success with Start-to-Finish than with other reading programs used in our school. Don Johnston's books have resulted in fewer discipline problems, a higher attention span, better comprehension, and much less frustration for the students, as well as an increase in test scores.”

## Summary - Reading Stigma is Removed

“There is no stigma attached when using the Start-to-Finish books on the computer,” summarized Ms. Hardenstein. “The kids loved the biographies and stories of *Hurricane Carter*, *Anne Frank* and the *Tuskegee Airmen*. In fact, the airmen came to town recently and these kids were excited to share what they knew. **Having multi-cultural books really gets kids excited about reading!** Don Johnston saved my teaching life. I was in a space where I wasn't feeling good about the results. When we were given a classroom with computers and started using Don Johnston products, our students' learning took off! It was an incredible shift in the way I viewed teaching and became more evident to me just how much Don Johnston cares about struggling learners.”

## Future Planning and Collaborative Classes

“This study proved that better coordination of content and activities between the remedial class and core content areas would greatly enhance student achievement,” commented Mr. McCoy. “A more coordinated implementation should yield results closer to the target of 1.5 reading levels for larger student populations. We also learned new strategies for utilizing available technology in remediation of general education students. These strategies were brought to the attention of regular education teachers. Participating students demonstrated improved self-efficacy in assigned reading tasks. The most deficient readers were highly engaged in a productive manner working with the technology. We feel this is due to the high topic interest of the books and carefully programmed content which minimized student frustration.”

Future planning at the high school will include expanded utilization of these reading technologies in general classroom lessons. Students who utilized the technologies demonstrated significant gains as shown on this grade-equivalent chart representing changes in grade equivalent comprehension in August (pre-program) through December (post-program). The study also confirmed that vocabulary and spelling are important activities in developing reading competencies. Reading competencies in all participating students improved: 18 out of 24 participants now demonstrate reading competencies above 6th grade.

*Based on the positive research results found in this Reading Academy study, Callaway High School will fully integrate their remedial program into their school and will expand the academy to freshman students starting next year.*

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When we were given a classroom with computers and started using Don Johnston products, our students' learning took off!”

Ms. Hardenstein  
Special Education Teacher

# Our Vision...

## Empower Students with Accessible Technologies that Address Unique Literacy Needs

It's commonplace in schools to see stacks of textbooks, paper notebooks, pencils and pens. These are the "conventional" learning tools in schools, and they are effective for many students. But for students with physical, cognitive or learning differences, these tools pose significant barriers to learning. These students require **specialized accessible technology** and media to maximize their learning. *This is where Don Johnston excels.* Since 1980 we have been developing and supplying innovative technologies to schools who recognize that each student has *unique* learning needs and can thrive in the *right environment*.

**We strive to create the right environment.** This requires the right tools, the right implementation and the right instructional approaches. We are committed to providing you with the most value, from product selection to ongoing support and implementation.