

# Case Study: Assistive Technology Implemented Through a Response to Intervention (RtI) Design

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**Spotswood School District, NJ**

**Prepared by Dr. John Krewer, District Superintendent**

## QUOTES

*“The response was unanimous in support of full implementation of the assistive technology program SOLO.”*

The **Spotswood New Jersey Schools** have embraced the “learning for all” mission and tenets that underpin NCLB legislation. The district, in a suburb of New York City, has a history of high achievement, with two of its four schools receiving Blue Ribbon status.

The Spotswood School District is characterized by forward-looking teachers, administrators, board members and community stakeholders coming together to make a strong commitment to technology integration tied with the curriculum to ensure optimum success for each learner.

A review of student achievement data in 2006 identified a population of students that might benefit from intervention using research-based curriculum and program delivery. While considering the needs of general and special education students, the district recognized that the special education population and at-risk general education students might derive timely benefit with assistive technology in the Response to Intervention design.

### **Long-Range Plan**

As a part of its Long Range Plan for School Improvement, the district identified mastery objectives at each grade level aligning with the State of New Jersey Core Content Curriculum Standards. The Standards determined “the what” of the students’ learning experience; Don Johnston’s assistive technology, SOLO Literacy Suite, became an essential part of “the how” to accomplish set goals, i. e. how will we ensure our students demonstrate mastery of the priority objectives in our curricula?

During 2006/2007, a critical mass of teacher support for the use of assistive technology was established. Middle and high school teaching teams were provided training on the assistive technology program, as well as apprised of its underlying scientific research. Educators were asked to respond to a single question: “Is this the best we can do for our learners?” The response was unanimous in support of full implementation of the assistive technology program.

Key principles central to Don Johnston’s SOLO include these Response to Intervention design elements:

1. Provide effective classroom instruction for each student
2. Utilize high-quality assessments that align with state standards
3. Deliver differentiated instruction and monitor individual student progress
4. Identify students requiring additional instruction (Tier 2 and Tier 3 RtI)
5. Apply scaffolding interventions to respond to diagnosed student needs

The district's search for appropriate technology was driven by consideration of the following questions:

1. Does the program advance the mission of all children learning well?
2. Does it complement the ways teachers teach?
3. Does it accommodate differences in how students learn?
4. Is the program affordable and cost effective?
5. Does it accelerate rates at which students learn?
6. Does it reflect the response to intervention design?

**SOLO** was installed at the middle and high schools in both resource rooms and in-class support settings. Special education students receive an additional period for tutoring/re-teaching each day to maximize the programs' use during these extended learning periods.

Each year, as part of the federal requirement for ongoing improvement under NCLB, New Jersey schools set a minimum of two student performance/achievement objectives. The language arts middle and high school objectives and their results for 2006/2007 follow:

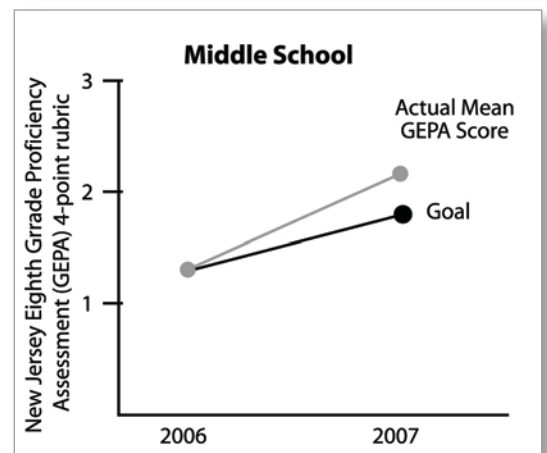
### **Middle School**

#### **Objective 2006/2007**

By June 2007, there will be an average increase of .5 in the scores of students with disabilities in grades 6–8 on the picture prompt of the New Jersey Grade Eight Proficiency Assessment (GEPA).

#### **Result**

In a district-developed picture prompt writing exercise graded using the GEPA 4-point rubric, students scored an average of 1.36 in September. A second assessment given in May produced an average score of 2.13. There was an increase of .77. The school exceeded its goal.

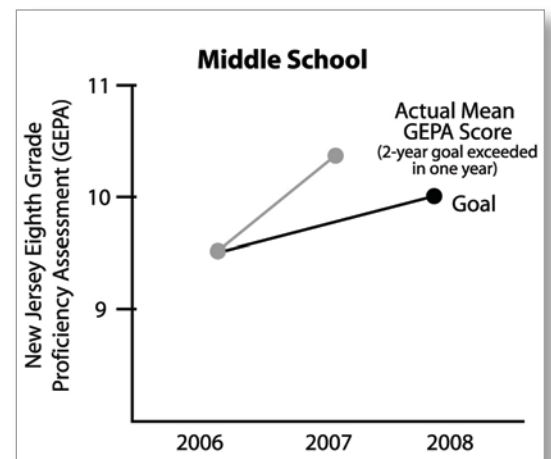


#### **Objective 2006/2008**

By June 2008, there will be an average increase of .5 in the scores of all students in grades 6–8 on the picture prompt of the New Jersey Grade Eight Proficiency Assessment (GEPA).

#### **Result**

On the writing section of the 2006 GEPA, students averaged a score of 9.5. On the writing section of the 2007 GEPA, students scored an average of 10.3. The school exceeded this objective—a two-year objective met in one year!



## High School

### Objective 2006/2008

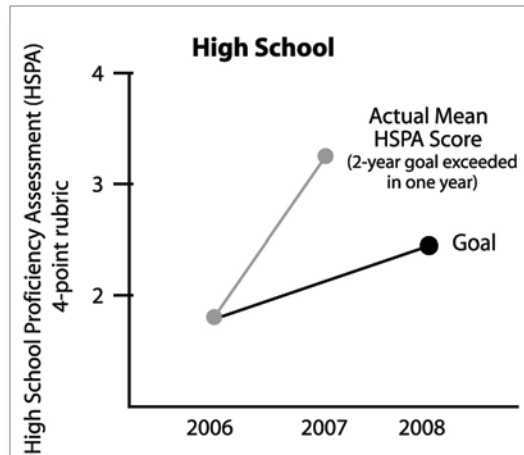
By June 2008, there will be an average increase of .5 in the scores of students in grades 9-12 on the open-ended responses in Language Arts Literacy in preparation for the High School Proficiency Assessment.

### Results

In an assessment given in September, students scored an average of 1.88 on HSPA-format open-ended questions using the HSPA 4-point rubric. Following instruction, students scored an average of 3.19 on a second assessment. They improved by 1.31. The school met their objective—a two-year goal met in one year! These impressive results are the culmination of dedicated staff effort, curriculum renewal, professional development and implementation of SOLO.

### Next Steps

Based on summer training opportunities and documented success, the program was expanded to include all students, special education and general education, at grades 2–5 during the current year. The expanded population is consistent with the district goal of maximizing student participation in the Response to Intervention program with an eye on reducing/minimizing additional special education enrollment to reduce cost-per-student ratios and to maximize opportunities to have all students reach their optimum learning potential.



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# 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.

Don Johnston empowers educators with specialized accessible technologies and supported reading and writing tools for students with cognitive, physical, and learning differences. Since 1980, the company has partnered with literacy experts, assistive technology specialists, speech language pathologists, psychologists, teachers, researchers, and scientists to develop over a dozen assistive technology products. The company also publishes Start-to-Finish®, a collection of paperback, audio and computer books for students who read below grade level.

