Teachers Report Benefits of *READ 180*® for Autistic Students

SCHOOL PROFILE

School: East High School
Grades: 7–12
Total Enrollment: 1,700
READ 180 Implementation: 90 Minutes,
  4 days per week
Case Study Period: 2010–2011
Data Collection Instruments:
  Teacher and Student Interviews,
  Scholastic Reading Inventory (SRI)

ABSTRACT

This case study describes how East High School teachers use *READ 180* to meet the literacy needs of students in their autism program. The report details benefits of *READ 180* for the autistic students—including three eighth graders who achieved reading proficiency and graduated to mainstream ninth-grade classrooms.

SCHOOL CHARACTERISTICS

Located in Rochester, NY, East High School enrolls approximately 1,770 students in Grades 7–12. About two-thirds (68%) of the student population is African American; the remaining students are Hispanic (21%), Caucasian (10%), and Asian/ Pacific Islander (2%). The majority of students qualify for free or reduced price lunch (82%), 20% of the students are identified as having disabilities, and 6% of students are identified as limited English proficient. East High School runs a middle school autism program that consists of two self-contained classrooms of seventh- and eighth-grade autistic students.

IMPLEMENTATION OVERVIEW

All students in East High School's autism program participate in *READ 180*. The school begain using *READ 180* in 2006 and the program was first implemented for autistic students in 2009–2010, when the autism program was in its beginning stages. *READ 180* was initially acquired to be used with two seventh-grade students on the recommendation of their teacher, who surmised that the structure, visual support, and engaging content in *READ 180* would be well suited to the needs of autistic students. Based on the students' success with *READ 180* and other instruction, other schools in the district began sending their autistic students to East High School to join the class. By the 2010– 2011 school year, there were two classrooms of autistic students—seventh and eighth grade—with eight students in each class.

After graduating from the autism program, students' academic and social skills are evaluated to determine their placement for the following year. The objective is for students to successfully transition into an integrated setting by ninth grade, if possible.

Participants

The sample described in this report consists of all 16 students in the autism program at East High School, all of whom participated in *READ 180* during the 2010–2011 year. Out of the 16 students, 14 (88%) were male, 13 (81%) were identified as economically disadvantaged, and 3 (19%) were designated limited English proficient (LEP). Half

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(50%) of the students were African American; the remaining students were Latino (31%), Caucasian (13%), and Asian (6%).

All students in the program have been diagnosed with autism spectrum disorder. According to the Centers for Disease Control, "Autism spectrum disorders (ASDs) are a group of developmental disabilities defined by significant impairments in social interaction and communication and the presence of unusual behaviors and interests." Students with ASDs display a wide range of differences socially, behaviorally, and academically. A majority of the students in the East High program are at the higher-functioning end of the autism spectrum. Most of the students have learned basic social skills, but still easily misinterpret typical social situations. Academically, the students tend to struggle with abstract thought and apply definitive meanings to open-ended questions and statements (e.g. idioms and sarcasm). The students varied in their initial reading level and in their ability to acquire and retain new skills and knowledge. Behaviorally, the students demand a high degree of consistency in their surroundings and tend to experience anxiety and frustration when confronted with a disorganized or unpredictable environment.

Each classroom is staffed with one classroom teacher and three additional staff members. The eighth grade has two teaching assistants and one paraprofessional, while the seventh grade has one teaching assistant and two paraprofessionals. An additional paraprofessional provides one-to-one assistance to one of the seventh-grade students.

This report describes how the teachers in the autism program designed the *READ 180* implementation to suit the needs of the students. It includes information from interviews conducted with the school principal and the lead teachers from both classrooms. In addition, data is reported on student performance on the *Scholastic Reading Inventory* (SRI).

Implementation Model

READ 180 uses a research-based instructional model that provides a simple and clear organization for instruction and classroom activity. Each day's instruction begins and ends with whole-group, teacher-directed instruction. In between the Whole-Group Instruction, students are broken into three groups and rotate among three areas in the classroom: Small-Group Instruction, independent reading, and individual practice on the Software.

The program for autistic students at East High School retains the basic *READ 180* model, with some minor modifications and increased support for certain components. Each day begins and ends with Whole-Group Instruction, as prescribed, and is delivered to each grade level separately. During the Small-Group rotations, the two grade levels are combined, and students move between the two classrooms as they rotate through stations. The teachers report that the following adjustments and supports help make the program successful for autistic students:

1) **Grouping by reading level.** The seventh and eighth grades are combined for the *READ 180* block, and students are placed into rotational groups based on their reading level rather than grade level. Because autistic students vary widely in their reading and cognitive skills, this allows for greater flexibility in creating the reading groups.

2) **Stations located in separate spaces.** During the rotations, one classroom is designated for Small-Group Instruction, and the other classroom is reserved for independent reading. Meanwhile, students work on the software at banks of computers in each classroom, using headphones. By physically separating the small-group lesson from the independent reading space, the teachers are able to provide students at each station with a calm and focused learning environment. This frees the students from disruptions that can be particularly distracting or upsetting to autistic students, who tend to be exceptionally sensitive to various types of sensory input.

3) **Occasional supplemental materials to target individual needs.** In addition to using the *rBook*® and *READ 180* teacher-directed instruction during small-group lessons, the East High teachers occasionally introduce additional custom-made or commercial resources (such as worksheets, graphic organizers, or additional practice materials for a specific topic) in order to target individual students' cognitive or behavioral needs.

4) **Common *READ 180* planning time for teaching staff.** The teachers and teaching assistants from both classes meet together weekly to plan specifically for *READ 180*. They discuss strategies for implementing the program and differentiating instruction for individual students, based on their particular academic and behavioral needs.

5) **Ongoing professional development and coaching.** The entire teaching staff of the autism program—teachers, teaching assistants, and paraprofessionals—meet once a month for concentrated professional development related to teaching autistic students. In addition, the district autism specialist often joins their planning meetings each week. She provides tips about how to adapt instruction for autistic students, and also observes the classes and gives feedback to the teaching staff about strategies to support specific students.

INTERVIEW RESULTS

A group interview was conducted with the two classroom teachers, the literacy coach, and the principal to ascertain their impressions of *READ 180* in the autism program. Brief interviews were also conducted with two students. The interviewees identified a number of specific aspects of *READ 180* that they found were particularly beneficial for autistic students and their teachers.

1. Highly Predictable Structure

The school staff emphasized that the predictable structure of *READ 180* is reassuring to autistic students, allowing them to focus on learning and minimize anxious or disruptive behavior. As one teacher explained, unpredictability and change are stressful to autistic students, and when they are stressed their learning is hampered. With *READ 180*, students are reassured by knowing that each class period, each Software lesson, and each type of *rBook* lesson will follow a specific structure. This allows them to concentrate on the lesson content, and comfortably transition from one station to another.

2. Motivating Computer-Based Instruction

The school staff and students all reported that the computer-based component of *READ 180* is a favorite with many of the students. The technology provides individualized instruction suited to each student's needs, in a predictable and consistent format. Furthermore, the computer is an intrinsically motivating medium for students, and has been shown to specifically increase the attention spans of autistic students. The students interviewed confirmed that they like the different zones—their teachers point out that they like knowing what to expect in each zone—and they feel good whenever they reach the Success Zone.

3. High-Interest Content

Teachers noted that the *READ 180* materials were of high interest and engaging to even the most struggling readers. Like other students their age, the autistic students want to be reading about the same topics as their peers. With the independent reading books, the Software, and the *rBook*, teachers said that autistic students of all reading levels are able to access text that reinforces their interests and builds motivation to read.

4. Visual Resources to Support Comprehension

According to the teachers, the visual components of *READ 180* provide valuable comprehension support for autistic students, by making abstract concepts more concrete. The teaching staff makes frequent use of visual aids included throughout the program—such as Anchor Videos, graphic organizers, and Topic Software video segments—to help the students create a focused mental picture of what they are learning, and to provide a concrete starting place when discussing abstract ideas. The teachers also use the Lexile charts and Scholastic Achievement Manager (SAM) reports when conferencing with students to provide a visual representation of personal progress, which is motivating to many students.

5. Scaffolded Writing

The teachers felt that students have benefited significantly from the scaffolded support for writing in *READ 180*. In particular, the graphic organizers in the program break broad writing tasks down into concrete, manageable steps, providing critical structure to help autistic students focus their ideas, organize their thoughts, and understand the elements of skilled writing. The students write in weekly journals, and with the scaffolded support and graphic organizers in the program they have moved from writing simple sentences to writing complete, grammatically correct paragraphs. The teachers reported seeing students apply these organizational skills in their writing in other settings as well.

6. Scaffolded Support for Reading Comprehension

As with writing, the scaffolded support for comprehension was identified as being particularly beneficial for the autistic students. According to teachers, the explicit instruction helps focus students' attention on the specific learning comprehension strategies, and guides them in applying those strategies to improve comprehension, draw inferences, and engage in higher order

thinking. The students have been observed applying those strategies in other subjects as well.

7. Daily, Differentiated Lessons With Teachers and Peers

Both students and teachers reported that the students like the daily small-group lessons in *READ 180*. The regular small-group lessons provide teachers a valuable opportunity to give students direct, targeted attention each day. For the students' part, they enjoy the opportunity to interact with their peers, and to have more direct attention from the teachers. As one teacher explained, for many of the students this is their first time meeting other autistic students, and it is often a reassuring and affirming social experience for them. One of the students interviewed noted how much he enjoyed small-group time with his friends and teacher, saying: "When you're in a small group with [the eighth-grade teacher], you know you're going to laugh."

Overall, the interviewees were pleased with the positive impact that *READ 180* has had on the students' reading skills. Although the students vary greatly in their capacity to achieve reading proficiency, the teachers have observed improvement in reading skills for the majority of the

students—even some who have not been responsive to reading instruction in the past. Furthermore, three eighth-grade students—each of whom has been in the program for two years—have made substantial enough progress academically and socially that they will be transitioning to a mainstream classroom next year.

Equally important, teachers observed that the program has a positive effect on students' affect about reading. According to the teachers, even the most struggling readers in the class are able to pick out their own books in their Lexile range, and read *READ 180* books that engage their interests. One teacher reported, "They love to go to the library now."

SRI RESULTS

The *Scholastic Reading Inventory* (SRI) was administered to the students in the autism program at least three times over the course of each year to track their progress. SRI measures reading comprehension by focusing on the following skills: identifying details in a passage; identifying cause-and-effect relationships and sequence of events; drawing conclusions; and making comparisons and generalizations. During test administration, the

Graph 1
East High School Autistic Students, Grade 8 (N=8)
Performance on SRI, 2009–2011

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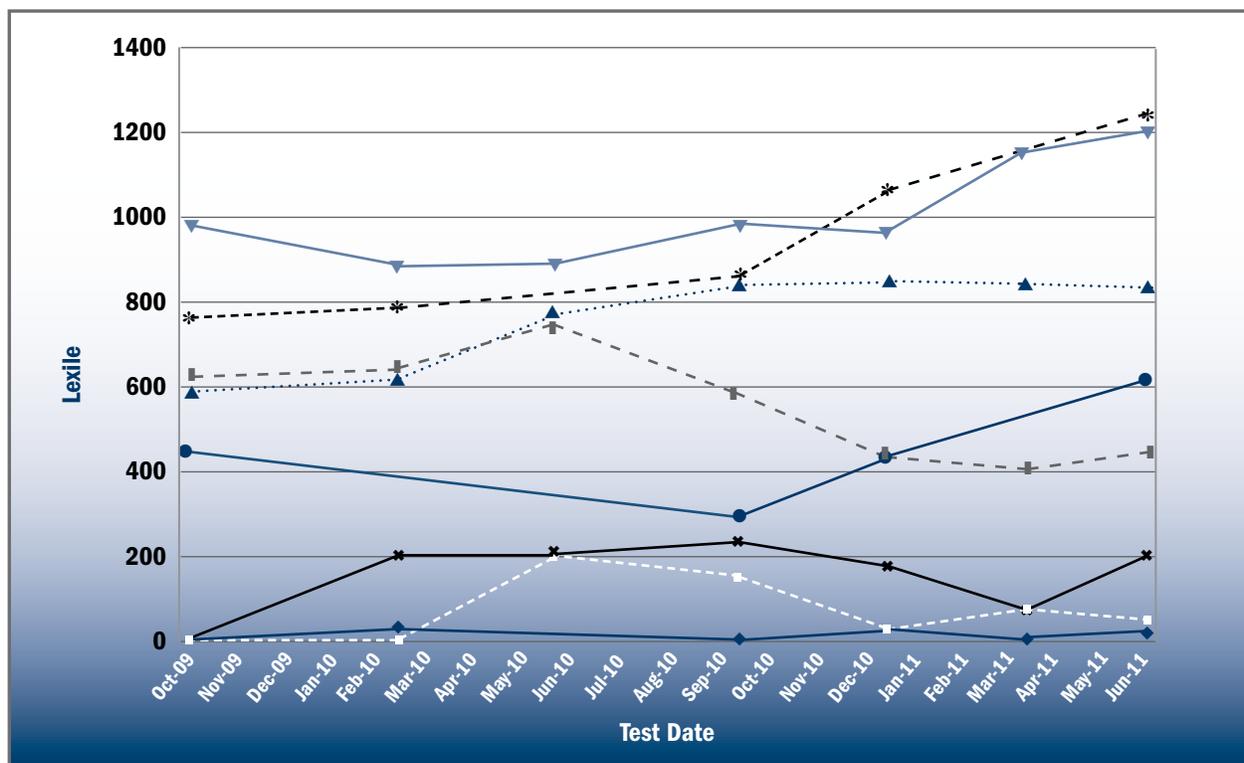
computer adapts the test continually, according to student responses. Performance on SRI is reported as a Lexile (L) measure. The higher a student's score, the more challenging material that student is likely to be able to read and understand. Scores can range from Beginner Reader (BR to 100L) to Graduate School Readers (1500L).

The SRI results revealed a wide range of reading proficiency and progress across the two classrooms. This is typical among autistic students, who may each exhibit a variety of other cognitive and/or behavior challenges that impact their individual learning. In the 2010–2011 school year, seventh grade fall Lexile measures ranged from Beginning Reader (BR) to 796L, while spring Lexile measures ranged from BR to 820L. In the eighth grade, fall Lexile measures ranged from BR to 986L, and spring Lexile measures ranged from BR to 1242L. When compared to Lexile norms for the general population, where the 50th percentile score is 955L in seventh grade and 1000L in eighth grade, it is clear that the autistic students' spring Lexile measures ranged from far below grade level to on grade level.

Graph 1 shows the SRI performance of the eighth-grade students over the two years that they were in the autism program. As the graph shows, there were five students who entered the program with some reading proficiency, with Lexile measures ranging in 2009 from 400L to 1000L. Four of these students made more than one grade level of growth after participating in *READ 180*. The teachers were pleased with the progress shown by these students, particularly since several had not shown this degree of responsiveness to literacy instruction in prior years. One of these students' scores declined between fall 2009 and spring 2011; his teacher notes that this student's level of effort declined in general over the year, possibly due to a tendency to become easily overwhelmed and a high degree of difficulty working independently.

Graph 1 also shows that three other students presented limited reading abilities when they started the program in 2009, and gained 52L to 213L by 2011 when they completed eighth grade. Although these students remained in the Beginning Reader range, their teachers were proud of the progress they made. One of the students was an English language learner who only spoke one or two words when he entered the program. Within two years he was able to speak complete sentences and initiate conversations; his teacher views the visual supports and sentence starters in *READ 180*

as a major reason for his progress. The other two students who scored in the Beginning Reader range have difficulty retaining information for extended periods of time. Nonetheless, the teacher observed that these students "made tremendous strides with their decoding skills, understanding vocabulary through context clues, and the use of graphic organizers to assist with their writing." These students also exhibited substantial changes in their attitudes toward reading; although initially both were uninterested in reading, as they moved through the program they became active and engaged participants in class and enjoyed working on the *READ 180* Software. As the teachers point out, the different patterns of SRI progress shown in Graph 1 illustrate the fact that autism affects the brain differently for each individual, and that there are many different ways to measure success for autistic students.

CONCLUSION

Now in the fifth year of implementing *READ 180* in the autism program at East High School, teachers, administrators, and students report a high level of satisfaction with *READ 180* as a literacy intervention for autistic students. Participation in *READ 180* contributed to improved reading skills for students at widely varying initial reading levels, and three students were able to graduate from the autism program reading on grade level. The school and district staff have built a strong implementation tailored to the needs of this population, by instituting practices such as mixed-grade groups, separate spaces for reading and small-group lessons, and substantial time for collaborative planning and coaching. According to the teachers, *READ 180* is well designed to facilitate learning for the autistic students, with components such as structured and scaffolded instruction, high-interest materials, extensive visual support, and small-group and computer-based instruction. The students show improved attitudes toward reading and more than half demonstrate reading gains—particularly those with two years of exposure to the program. The experiences of the teachers in East High's autism program provide valuable information for other schools and districts seeking to use *READ 180* to have a positive impact on autistic students' engagement and learning.

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