Note: The Henderson is formerly the Patrick O'Hearn Elementary School. Excerpts taken from http://boston.k12.ma.us/Henderson/honors.html

About The Henderson

The Henderson is a small elementary school, serving children from early childhood through Grade Five. The students are from diverse ethnic, linguistic, and ability backgrounds. Being an inclusive school, students who have disabilities learn in general education classrooms with their nondisabled peers. Teachers and support staff collaborate to help all children learn and succeed at high levels.

Within the school population, approximately 33 percent of the students have a disability, many of which are labeled significant. Integral to the school's success is the use of accommodations. According to Dr. Bill Henderson, former Principal of The Henderson School, "There can be no pretense of teaching all students in inclusive classrooms by using the exact same curriculum materials and instructional strategies. This "one-way fits all" would not be good pedagogy even in so-called homogeneous classes. At [The Henderson], where there are students working at, above, slightly below and well below grade level in every room, a single approach was never an option.".

Why Implement Kurzweil 3000?

The decision to adopt Kurzweil 3000 as the text reader at The Henderson was based on a careful and thorough evaluation of student needs. The staff and administration recognized that many students struggled with reading as a direct result of vision issues, specific learning disabilities and language processing problems. Prior to implementing Kurzweil 3000, many students accessed text through books on cassette but the school identified some flaws with this accommodation. When Dr. Henderson and the staff became aware of the Kurzweil 3000 text-to-speech functions, as well as its ability to scan content and provide study skills, they were optimistic this could be an effective accommodation for certain students. "…It allowed kids to both see and hear the text. They were using their eyes and ears and accessing information in dual mode. I think any boost they can get the better. Since it was on the computer and because of the control [students] can get over changing and selecting [their] own voice style, changing and selecting [their] own voice speed, it was more attractive, sophisticated and cool. We found very little embarrassment or stigma about using the computer. The teachers found that other kids who did not have learning difficulties or disabilities were requesting, "…can I read the book on the computer too?"" reports Dr. Henderson.

Quantitative and Qualitative Impact

The Kurzweil 3000 solution has shown a positive impact for students both quantitatively and qualitatively. To analyze its specific quantitative impact, The Henderson used two reading measures, the Developmental Reading Assessment (DRA) and the Fountas and Pinell Reading Level. They found that across the board, students were able to read at higher levels when using the accommodation. According to DRA scores, students performed 4-10 levels better with the accommodation, which equated to 1-1.5 grade levels better, and leapt one to four levels on the Fountas and Pinell measure.

FOCUS On Children — Boston Public Schools

FAST FACTS

There are 135 schools in the BPS:

- 6 early learning centers (K–grade 1)
- 53 elementary schools (K–5)
- 23 elementary & middle schools (K–8)
- 10 middle schools (6–8)
- 2 middle & high schools (6–12)
- 29 high schools (9–12)
- 1 elementary through high school (K-12)
- 3 "exam" schools (7–12)
- 6 special education schools (K–12)
- 2 alternative (at-risk) programs

Of these, 21 are pilot schools (1 early learning center, 4 elementary, 5 K–8, 2 middle, 2 middle/high, 7 high). In addition, 2 high schools are Horace Mann charter schools approved and funded by the BPS; and 1 high school is a Commonwealth pilot school.

SY10 enrollment is 56,340 (a decrease of 177 from SY09 actual), including:

- 26,540 students in kindergarten–grade 5
- 11,460 students in grades 6-8
- 18,340 students in grades 9-12
- Student demographics:
- 39% Hispanic
- 37% Black
- 13% White
- 74% of BPS students are eligible to receive free & reduced-price meals in school (65% free, 9% reduced).

Qualitatively, student work and efficiency greatly improved with the implementation of text readers in the classroom. Several articles of student work, with and without the accommodation, were collected and analyzed. A second-grade student was asked to write three sentences about a book that he had read. In the first sample the student completed the task without Kurzweil 3000 and used only pen and paper to convey his thoughts. After laboring for 45 minutes to complete the assignment, the student was only able to produce three relatively illegible and incomplete sentences. When given a different but similar prompt and allowed to use the text reader, the student was able to write ten complete sentences within 15 minutes.

Implementation

Technical implementation of this accommodation consists of four major areas: technology, training, funding and capacity. When considering the technological requirements for implementation of a text reader, one must take into account the infrastructure, software, and hardware that are currently available and subsequently needed.

In order to take full advantage of the text reader technology faculty, staff, parents and students must be properly trained to use it. At The Henderson, certain teachers felt more comfortable with new technology and were more computer savvy. As such, they were targeted first for training. The teachers were trained as part of their required in-school professional development. Due to this training, the school created a teacher-identified support team in order to help teachers who needed assistance. The school also established a technical support liaison with Kurzweil Educational Systems so that faculty with questions could quickly call or email the company for help. To address student capabilities, all children engaged in some level of training during their normally scheduled work groups. Finally, a small group of parents were trained by the Kurzweil Educational Systems staff to use text

readers at home. These parents then became parent trainers. They established a program using the "train the trainer" model whereby the parent trainers went into the homes of families who required the accommodation.

Funding is the third technical component that must be addressed. In the case where a school cannot implement text readers in all classrooms, a flash drive allows sites to prioritize this accommodation for students who need it most. Moreover, there are many funding sources to pay for a text reader. A school may use special education funding or Title I funding. It can also apply for grants, solicit private funders, or hold fundraisers. The Henderson accessed each of these funding sources to pay for their text reader technology, including Easter Seals grants. Finally, it is important to address capacity; what the school currently has and where it needs to expand. In order to implement text reader technology into every classroom, The Henderson had to build capacity in its staff. The school has designated one teacher to serve as a full time Kurzweil 3000 coach.

The Henderson recognized four concrete steps for bringing text readers into a school; (1) identify student need, (2) choose a text reader, (3) plan for implementation and finally (4) develop a supportive culture. The Henderson commitment reflects their original theory of action: "if we provide teachers with the awareness, knowledge, and skill to implement the text reader accommodation in their schools, then we will ensure more students with various disabilities get access to print or content by way of minimizing the impact of their disability. And that by helping to change adults' behaviors by way of introducing them to the accommodation, they will understand the potential impact and change their beliefs about the essential nature of this accommodation for maximizing students' opportunity to participate in the general curriculum alongside their non-disabled peers."

To learn more about Kurzweil 3000,™ or find your local representative, please visit our web site at www.cambiumtech.com.

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