

Johns Hopkins Study Proves RFB&D's Effectiveness in Elevating Reading Comprehension

November 19, 2003 (Princeton, NJ) - Students with learning difficulties showed a 38 percent increase in content acquisition reading scores after using RFB&D's AudioPlus® textbooks on CD, a published study in Learning Disabilities Quarterly reports.

The study was conducted by Johns Hopkins University to evaluate the effectiveness of RFB&D's recorded textbooks on the acquisition of content - or the process of learning the assigned material - by secondary students with learning problems, the majority of which were identified learning disabilities. RFB&D, a national nonprofit with 28 recording studios nationwide, is the country's leading provider of textbooks and educational materials in accessible formats for students with disabilities that make reading standard print challenging or difficult.

Special education students from seven Baltimore County public high schools participated in the eight-week study that focused on the accessibility of the district's ninth grade American government textbook. Students were assessed by short- and long-term comprehension tests to determine whether content acquisition increased. A pre-test and a post-test, developed by the textbook test maker, were administered to determine impact on content acquisition during the course of the study.

Entire classes of students were assigned randomly to one of three groups:

- Students using RFB&D's AudioPlus textbook on CD for 15-to-20 minutes daily
- Students using RFB&D's AudioPlus textbook on CD for 15-to-20 minutes daily with a specific organizational learning strategy. The strategy was designed to aid comprehension and knowledge by cueing active listening, directing readers' attention to important text and integrating new information with the students' existing knowledge base
- A control group that engaged in 15-to-20 minutes of reading daily, using a standard textbook, with no audio text or specialized instruction

For each of the two experimental conditions, the comparison with the control condition was statistically significant.

- Students who had access to RFB&D's AudioPlus textbooks achieved a 38.1% increase in post-test scores compared to peers in the control group, whose scores increased by 21%
- Students using both RFB&D's AudioPlus textbooks and the complementary learning strategy had a 39.4% increase in their post-test scores

"Educating students with learning disabilities is particularly difficult at the secondary level because the emphasis in the classroom shifts from learning to read, to reading to learn," said Shari Gallin Washburn, a co-author of the study findings. "There exists a need to develop tools and strategies that stimulate a student's intellectual aptitude without watering down the curriculum. This is where RFB&D's recorded textbooks and complementary learning strategies can bridge the gap between a student's potential and performance."

"The findings are important because they demonstrate that students who need alternative ways to access high content material can experience success," said Michael Rosenberg, professor, department of special education, Johns Hopkins University. "Also important is this kind of partnership between a national nonprofit organization and a team of university researchers because it enables us to conduct applied research that directly impacts the lives of children."

While the degree of content acquisition was slightly higher among students using both audio textbooks and a learning strategy, anecdotal reports from teachers and students indicate the demands of the strategy may have been too challenging (i.e. too much writing). To enhance the efficacy of the audio textbook technology, the strategy, SLiCK (Set it Up, Look Ahead, Comprehend, Keep it Together) will be redesigned, based on teacher-feedback and tested in a future study.

Princeton, NJ-based RFB&D is the nation's educational library for students who cannot read standard print effectively because of a disability. Founded in 1948, RFB&D serves more than 117,000 students from kindergarten to graduate school and beyond with its library of 93,000 recorded textbooks. More than two-thirds of RFB&D's members have learning disabilities such as dyslexia.

Johns Hopkins University was the first research university in the United States. Founded in 1876, its aim was not only to advance students' knowledge, but also to advance human knowledge generally, through discovery and scholarship. The university's emphasis on both learning and research - and on how each complements the other - revolutionized US higher education. Today, Johns Hopkins has ventured from its home in Baltimore to countries throughout the world - China, Italy and Singapore, among many others. It remains a world leader in teaching, patient care and discovery.

The authors of *The Effects of Audio Texts on the Acquisition of Secondary Content by Students with Mild Disabilities* are Elizabeth Boyle, Michael S. Rosenberg and Vincent Connelly at Johns Hopkins University, Baltimore, MD; and Shari Gallin Washburn, Loring Brinckerhoff, and Manju Banerjee at RFB&D.