



Race to the Top Assurance Areas:

- Turning Around the Lowest-performing Schools
- Great Teachers and Great Leaders
- Standards and Assessments
- Data Systems to Support Instruction

Product Description

No Child Left Behind (NCLB), signed into law in January 2002, is considered one of the most significant federal education policy initiatives in a generation. An important aspect of this legislation is to encourage schools to adopt programs, strategies and materials that have been researched using rigorous scientific methodology and have proven to be effective.

Fortunately, the fruits of over 30 years of research on reading, most of it sponsored by the federal government, are now available. While much of the research focuses on the mechanics of reading, the picture that has emerged makes a strong case for the use of assistive technology tools such as Kurzweil 3000, or other accommodations, to provide access to content while students are receiving explicit instruction in reading, spelling, writing, test taking and study skills. In fact, without this type of accommodation, it becomes almost impossible for struggling readers to catch up academically.

Assistive technology like Kurzweil 3000 allows struggling students to read more advanced grade-level material; it also helps improve word recognition and decoding. As students using the program become more active readers, they develop the skills that support independent reading without the assistive technology.

- Poor reading skills affect all academic areas
- The ability to decode every word is essential to comprehension
- Comprehension, the ultimate goal of reading, is equally dependent on vocabulary development and background information as on accurate decoding
- The right accommodations allow students to demonstrate what they know and not how well they can read.
- Struggling readers require a multi-sensory approach to reading instruction
- Pre-Reading skills improve comprehension
- Vocabulary instruction improves comprehension
- Enhanced concentration improves reading fluency



- Auditory and visual access to text improves comprehension
- Fluency improves with practice
- Struggling readers struggle to write

For students to benefit from independent reading, they must be able to decode 95% of the text they read with speed and accuracy. This precludes most struggling readers from actively reading grade level texts. Struggling readers will not develop the vocabulary and background knowledge necessary for subject matter mastery unless they have timely access to grade-level materials. Along with remediation in decoding, spelling and writing, accommodations such as Kurzweil 3000 providing access to grade-level text, offer struggling readers their best chance to succeed.

While Kurzweil 3000 is a sophisticated text reader, the program also offers a rich array of features to reinforce the core reading skills research has shown to be important. These include decoding, fluency, comprehension and writing.

In his address to the 2003 International Dyslexia Conference, Reid Lyon, Director of the National Institute of Child Health and Human Development, commented with both concern and dismay that national reading scores have not improved despite the widespread adoption of phonics based reading materials. Other speakers picked up on this theme suggesting that both researchers and educators have to pay more attention to the other parts of reading: vocabulary development, reading for comprehension and information and fluency. Text to speech software such as Kurzweil 3000 has proven to be one of the most successful ways of exposing struggling readers to subject matter content at their grade level while helping them become more accurate and fluent readers. Given the high stakes set by NCLB, making assistive technology like Kurzweil 3000 available to students may be one of the wisest investments a school can make.

Reading support

Kurzweil 3000 provides multisensory access to virtually any text or curriculum, including print, electronic, and Web-based documents. This access allows users to engage in the study of cognitive and age-appropriate materials. As both a UDL and Response to Intervention (RtI) tool, research has shown *Kurzweil 3000* to be highly effective in addressing the development of three critical reading skills:

- **Fluency**—*Kurzweil 3000* reads text aloud at a rate appropriate for each user, providing a model of and support for fluent decoding of text
- **Vocabulary**— By fluently reading text aloud, *Kurzweil 3000* not only increases student reading speed; it provides exposure to grade-appropriate vocabulary and immediate support in the form of dictionary and reference tools

- **Comprehension**— Compensating for weak decoding skills, *Kurzweil 3000* allows the user to focus on the meaning of content, offering highlighters and other tools to enhance understanding of material

Writing support

Kurzweil 3000 has numerous research-based writing tools to support the student at every stage of the writing process, from brainstorming to publishing.

Enhanced writing supports include:

- Templates to assist writers with pre-writing organization in both text-based and graphical formats
- A “Start Writing” button and a newly reorganized Write menu to streamline the beginning of the writing process
- A “Create” button that converts the outline to a draft
- Additional spelling correction support

Study skills

Access to content is just the beginning, as *Kurzweil 3000* study skills tools enable educators to teach and reinforce research-based strategies. The *Kurzweil 3000* Study Skills Toolbar provides the following tools.

- Six colors for highlighting
- Footnote, sticky note, text note, voice note, Bubble Note, and bookmark
- MP3, DAISY 2, and WAV audio file creation
- Circle tools (red and blue)
- “Join Column Notes” feature allows the user to combine separate column notes into a single file to keep research material organized

Comprehension and test-taking support

From classroom worksheets and quizzes to state-level assessments, *Kurzweil 3000* provides tools to accommodate a student’s individualized education program (IEP), provide a teacher’s formative decision-making data, or facilitate a test administrator’s security needs.

- Picture Dictionary of more than 1,300 graphics and illustrations as well as real-life photos from NASA and NOAA (National Oceanic and Atmospheric Association)
- Human voice pronunciations from American Heritage® Dictionary
- The multi language recognition option allows users to recognize documents that contain multiple languages
- Additional support for phrases in pronunciations and optical character recognition (OCR) corrections lists expands *Kurzweil 3000*’s ability to provide greater accuracy in aiding language learners
- Question and Response Formats include multiple choice, fill-in-the-blank, true/false, matching and essay

- Fill-in-the-Blanks lets students use *Kurzweil 3000* Text Notes to complete and print many assignments
- Record Responses using Voice Notes to provide responses orally for teacher review

Additional benefits for users of the Web License edition of Kurzweil 3000:

Through the addition of enhanced Web technology solutions, *Kurzweil 3000* Version 12 for Windows Web License Edition was developed to address the challenges of administering coursework, monitoring individual student progress, and the file storage and sharing required for successful implementation.

VPORT License and user management

VPORT® is a URL-based license delivery and management service developed by our sister company Voyager.

- Manage district, schools, classes, teachers, and students
- Roaming User Profiles allow users to log in wherever a *Kurzweil 3000* Version 12 Web License client is installed

Web-based universal library service

- Makes files available anywhere *Kurzweil 3000* Web Client and an Internet connection exist
- Share, reuse, and distribute documents and curriculum across users, schools, districts, and beyond
- Serves as the repository for assignment

Create, assign, and monitor student assignments

- Organized means of assigning and receiving student work
- Assign reading, writing, and comprehension activities
- Score true/false, multiple choice, and matching questions
- Follow progress toward task completion and communicate based on individual needs

Obtain reports of assignments and work

- Generate assignment score and usage reports to meet IEP objectives
- Use score and usage reports to drive decision making toward goals for adequate yearly progress (AYP)
- Ability to track usage at all levels (student, teacher, class, school, and district/campus)

Kurzweil 3000 Version 12 for Windows® is available as a standalone, lab package, USB and Web License edition.

Kurzweil 3000 Version 4 for Macintosh® is available as a standalone, lab package, and Web License edition.



Site and District-Wide Licensing plans are available.

Lowest-Performing Schools

After the passage of No Child Left Behind, educators were challenged to find effective, research-based interventions that would help close the achievement gap for students with special needs. A review of the literature found little research existed at that time. In response, the Iowa Assistive Technology Text Reader Project, under the auspices of Iowa Department of Education, Bureau of Children, Family, and Community Services studied the impact of the use of text-to-speech (TTS) software like Kurzweil 3000 on student achievement.

The Iowa Text Reader Longitudinal Study 2006-2007 was the work of a collaborative team from across the state of Iowa. A multidisciplinary study committee of five individuals designed and managed the implementation of the Iowa Assistive Technology Text Reader Project. Assistive technology liaisons from across the state were trained, collected data, and supported the implementation with their students and teachers. Classroom teachers then implemented the design in their classroom setting.

The study hypothesized that use of Kurzweil 3000 as an accommodation would improve student access to core content through improved fluency and comprehension. The Time Series Concurrent and Differential (TSCD) Approach (Smith, 2000) was used to study enhanced student performance by comparing comprehension on passages read with and without the TTS software. Students and teachers received training on the Kurzweil 3000 software to implement with core content. Biweekly progress monitoring data were collected for 27 weeks using curriculum-based measures of fluency and comprehension. Periodically, subjective measures of implementation, participant satisfaction, and proficiency were also gathered. The results documented that students accessed information twice as fast and performed significantly better on passage comprehension measures when accommodated with the Kurzweil 3000 than when not accommodated. The use of the TTS software also allowed students to demonstrate significantly improved comprehension scores on factual and inferential comprehension questions. Participants reported strong positive feelings on staying on task, reading the text, understanding passages and working independently. Overall, use of the TTS software provided significant impact on fluency, passage comprehension on both recall and inferential questions, and improved school behaviors.

The Iowa Assistive Technology Text Reader Project has examined the impact of the use of text reader software on student achievement in an ongoing attempt to find effective interventions to close the achievement gap between students with disabilities and their non-disabled peers.



Summary of results:

Twenty students from across the state of Iowa participated for a second year in a 27-week longitudinal study of the impact of the use of a text reader software program with embedded study skills on multiple measures of academic performance. The Time Series Concurrent and Differential (TSCD) Approach (Smith, 2000) was used to study the enhanced performance of students using a text reader by comparing student comprehension on passages read with and without the text reader. The order of the reading format (print vs. scanned) of the probes was randomly varied. The repeated measures over time with and without assistive technology were used to provide evidence of the impact and outcome of assistive technology use. Enhanced performance was observed in the following areas:

- Students demonstrated the ability to access twice as much information with improved comprehension levels.
- With two years of use, students demonstrated improved comprehension even as the reading difficulty increased.
- Without appropriate accommodations the comprehension scores declined, while with the accommodation comprehension scores improved.
- Students performed statistically significantly better on passage comprehension measures when accommodated by the text reader than when not accommodated.
- The use of the text reader allowed students to demonstrate improved comprehension scores on factual and inferential (higher level thinking) comprehension questions. When not accommodated their scores on the same tasks declined as the difficulty increased.
- Greater gains were seen after the cumulative effect of two years of experience with the text reader than in the first year.

In the second year of use, the students moved to more fluid use sooner than they did in the first year (Week seven compared to week eleven). Both the students and teachers participating reported strong positive feelings on feedback surveys linking the use of the text reader to a variety of positive school behaviors, such as staying on task. In addition, students and teachers alike reported strong support for essential impact items such as reading and comprehending text and working independently.

In addition to the results being statistically highly significant, they are also educationally significant. The results demonstrate that students can access the core materials at twice the rate, with understanding at levels of higher thinking, allowing them to work competitively in an inclusion setting. From a teacher perspective, the students using the text reader accommodation would be better able to

independently access and understand the same material as his/her peers at an increased rate. Full report available upon request.

Great Teachers and Great Leaders

Cambium Learning Technologies' innovative tools can enhance instruction and help all students achieve – but only when used effectively. We empower educators by providing the ongoing training and support needed to learn how to integrate CLT products into the classroom for individual, small group and whole class instruction.

Our Implementation Services team consists of highly qualified educators with extensive experience in educational technology integration, curriculum, assistive technology, literacy, and universal design. Expert professional development is designed to meet your needs and your budget. Options include:

- Curriculum alignment services
- High-stakes test preparation services
- Self-study online workshops
- Live online workshops
- Public regional workshops
- Private on-site workshops
- Long-term implementation partnerships: training, lesson preparation and consultation support

The Implementation Services team will help you plan for successful technology integration with the appropriate professional development and planning, the team can help:

- Ensure that all students achieve
- Integrate technology
- Differentiate instruction
- Supplement and enhance existing curriculum
- Support the UDL classroom
- Extend teachers' reach
- Meet educational goals
- Build internal capacity
- Enhance instructional strategies in:
 - Reading
 - Writing
 - Mathematics
 - Study Skills
 - Test taking

Combing Kurzweil 3000 with a comprehensive professional development model that focuses on proven instructional strategies that are specifically designed to meet the needs of the diverse populations of the students in Tennessee will help close the achievement gap and turn around low performing schools.



Standards and Assessments

Kurzweil 3000 has been approved to have the state test loaded and available for those students who have IEPs written for assessment accommodation. Assessments can be taken securely whether it is a short classroom quiz or longer state standards based test.

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