How Does Kurzweil 3000 Support Reading Instruction and No Child Left Behind?

About No Child Left Behind

In 2002, the No Child Left Behind Act (NCLB) was passed by Congress, overhauling the main federal law for K-12 education. The goal of this legislation is to improve American education by placing new demands on states and school districts to improve student achievement. NCLB requires schools to gradually demonstrate progress toward ensuring all students are academically proficient by 2014.

A key component of the NCLB legislation is the Reading First Initiative, which will distribute nearly $5 billion among the 50 states over the next several years to ensure schools use effective, scientifically based teaching methods to teach reading. The goal of this program is to have every child reading by the end of grade 3. The program places emphasis on providing professional development for classroom teachers in proven instructional practices, programs and materials for teaching the major components of reading.

The Reading First Initiative has identified five areas of reading instruction that are essential and proven to be successful in teaching children, particularly at risk readers, to read. These five areas are:
1) Phonemic Awareness; 2) Phonics & Word Study; 3) Fluency; 4) Vocabulary; and 5) Comprehension.

About Kurzweil 3000

Kurzweil Educational Systems is committed to helping schools meet the requirements of NCLB by providing a software product, Kurzweil 3000, which supports the main components of effective reading instruction. Kurzweil 3000 is reading, writing, and learning software for struggling students, and is widely recognized as the most comprehensive and integrated solution for addressing language and literacy difficulties. The software uses a multi-sensory approach — presenting print or electronic text on the computer screen with added visual and auditory accessibility. It incorporates a host of dynamic features, including powerful decoding, study skills and test taking tools, designed to adapt to each individual's learning style and to promote active learning.

What Does Research Say About Effective Reading Instruction?

The National Reading Panel (NRP) was convened in 1997 at the request of Congress to assess the status of research-based knowledge about reading in the largest, most comprehensive evidence-based review ever of research on how children learn to read. In their results, which were published in 2000, the panel determined that the most effective reading instruction involves using a combination of methods in the five areas of reading.

Some of their findings were:

1) Scientific evidence shows that teaching children to manipulate the sounds in language (phonemes) helps them learn to read. The panel concluded that teaching **phonemic awareness** to children significantly improves their reading when compared to instruction without attention to phonemic awareness.

2) Systematic **phonics** instruction leads to significant, positive benefits for students in kindergarten through sixth grade and for children with difficulty learning to read.

3) Reading practice, both orally and silently, leads to an improvement in reading **fluency**.

4) In the teaching of **vocabulary** development, which is one of the keys to improved reading comprehension, repetition and seeing vocabulary words several times are very important.

5) Research shows that reading **comprehension** improves when a combination of techniques are used such as question answering, question generation and summarization.

Why is it So Important for Children to Learn Good Reading Skills?

Reading is fundamental to learning about Math, History, Science, Literature, Geography, and much more. Therefore, young, capable readers have a much better chance of succeeding in these subjects and developing confidence in their own abilities. In addition, they are more likely to take advantage of reading for pleasure and becoming lifelong learners. Research shows that children who read well are far more successful in later years and that those who fall behind in the early years often stay behind *(Snow, Burns and Griffin 1998)*.

Kurzweil 3000 and the Five Components of Reading

Kurzweil 3000 technology features support the teaching and learning of skills in all five reading components.

Phonemic Awareness and Phonics/Word Study

With phonological awareness, students become aware of the individual sounds in words, and are able to recognize the breaks between syllables in words and words in sentences. Through phonics instruction, they learn the alphabetic principle (the systematic and predictable relationships between letters and sounds) and use knowledge of word patterns to recognize familiar words and to "decode" new words.

The Kurzweil 3000 read aloud features help students recognize the relationships between sounds and letters, word parts, and syllables. The pronunciation of individual phonemes and syllables within words reinforces phonics development, and the multisensory and interactive format of Kurzweil 3000 provides both visual and auditory exposure at the sound, syllable, word, phrase, or sentence level.

Fluency

Fluency is the ability to read text accurately and quickly, with prosody (inflection). It is the bridge that connects decoding and comprehension. Fluency is improved through repeated, monitored oral reading using a variety of reading materials, and by hearing models of fluent reading.

The clear, natural sounding speech of Kurzweil 3000 offers models of fluent reading. Students can read along as they hear sample readings of passages repeated as many times as needed using the read aloud feature to check their pronunciation. They can also change the speed at which the program reads, gradually increasing the reading speed as they become more proficient. Additionally, teachers have found that adjusting the reading speed to prompt students at a faster rate than they tested at has been effective in increasing fluency. Kurzweil 3000 also provides access to a variety of print or electronic text, a key element in fluency practice.

Vocabulary

Vocabulary develops through both direct and indirect instruction in the meaning of words.

The Kurzweil 3000 study skills features make it easy to highlight, extract, and review new vocabulary words prior to reading. The reference tools (dictionary and thesaurus) provide immediate definitions for new words during reading and help expand the reader's vocabulary.

Comprehension

Instruction and practice in the following reading comprehension strategies is the most effective way to improve comprehension: activating prior knowledge; using graphic organizers to focus on main idea concepts; generating and answering questions; and summarizing to determine what is important.

The Kurzweil 3000 highlighting, annotation and extract features offer time-saving support for the identification of main ideas and the creation of graphic organizers and outlines, as well as the generation of summaries. Text, voice and sticky notes enable both teachers and students to imbed questions within the text, as well as extract key information for answering the questions.