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# Read & Write Gold: Technology Increasing Student Achievement

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**Keywords**

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**Disciplines**

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## **Read & Write Gold: Technology Increasing Student Achievement**

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### **Abstract**

The state of Kentucky has embarked upon a large scale systems change effort to integrate Universal Design for Learning (UDL) principles, including use of digital curriculum and computerized reading supports to improve overall student achievement. A major component of this initiative is the use of Read & Write Gold. As higher expectations are placed on student outcomes, Read & Write Gold offers a host of instructional advantages leading to improved performance for Kentucky's K-12 students.

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### **Introduction**

The state of Kentucky has embarked upon a large scale systems change effort to integrate Universal Design for Learning (UDL) principles, including use of digital curriculum and computerized reading supports to improve overall student achievement. A major component of this initiative is the use of Read & Write Gold. Read & Write Gold (RWG) is the one reading and writing tool for struggling students. Parents and teachers of elementary, middle and secondary school students alike use this program to help students

succeed in the classroom. With Read & Write Gold, students and educators can mark main ideas, extract outlines, create voice notes and add annotations. Convenient reference tools have been integrated such as dictionary, synonyms, syllables, audible spell checking, along with word prediction, to facilitate both reading and writing improvement and assistance.

Read & Write Gold also features text to speech and scanning capabilities. Printed Documents and text can be scanned in or opened from anywhere on the computer or online then saved and

opened in proprietary format to utilize the powerful reading, writing, and learning tools.

The text to speech will read each word,

sentence, paragraph or selected text. There is a choice of different voices which can be adjusted to suit each student by altering the pitch, speed, and volume.

## Description of the Problem

The Kentucky Commissioner of Education in a Memo to all Superintendents said the following.

I have been informed that we have a very useful piece of technology available in over 95% of our schools that is being underused to benefit our students.

Read & Write GOLD (RWG), developed by TextHelp Systems, is software which supports reading and writing needs, bringing comprehensive literacy support through a unique set of tools for the user. RWG allows users to work in a truly inclusive environment using standard applications, such as Microsoft Word, Outlook and Excel and Acrobat Reader, to see text and hear text being read aloud along with tools to assist with the writing process.

While RWG has been installed in many Kentucky districts for several years, it appears that implementation continues at low levels.

Read and Write was designated for special education students to improve reading, but it can be used with more students and in additional areas. Since the software can be installed on any computer and used by any student, some teachers also use it as a tool for writing as well. (<http://www.education.ky.gov/KDE/Administrative+Resources/Commissioner+of+Education/Messages+to+Superintendents/20060206+Read+and+Write+Gold.htm>)

The increased accountability found in No Child Left Behind (United States Department of Education, 2001) and benefits offered by technology were the driving forces behind the movement toward UDL, along with the growing research base it offers. The challenge faced by educators was to find new ways to engage students with disabilities with the general curriculum to improve their educational performance. A secondary goal was to

integrate UDL principles and technologies that could benefit all students, not just those with disabilities.

In Kentucky, as well as across the nation, reading and writing skills play a significant role in the achievement scores obtained on standardized and non-standardized tests. To address the areas of reading and writing skills, a four-pronged student-based approach was implemented initially by the Kentucky Department of Education and

then assigned to Special Education Cooperatives. Cooperative staff worked in partnership with various support agencies, while also providing direct services to districts interested in incorporating project components. These included locating and distributing accessible digital curriculum materials, school-wide availability and use of technology supports (e.g., text reader tools), accessible online assessment, and a broad array of technical support and implementation training. These areas were identified as critical to improve the achievement of Kentucky students, especially in the core areas of reading and writing.

Acquiring accessible curriculum materials were supported by recent legislation that amended Kentucky's textbook adoption law to encourage textbook publishers to offer accessible digital versions of textbooks offered for adoption in the state (Casebier, 2002). Starting in 2003, this legislation paved the way for publishers to begin offering digital curriculum materials aligned to Kentucky's textbook adoption cycle and specifications (Legislative Research Commission, 2003). These digital textbook files are then distributed to eligible students with disabilities in accordance with the copyright requirements of the Chaffee Amendment. This Kentucky legislation has prompted more publishers to examine the opportunities for producing and selling accessible digital text as a free market solution for all students (Association of American Publishers, 2002).

Currently, 95 percent or over 1000 Kentucky schools have purchased text reader software such as Read and Write

Gold (RWG) from TextHELP (Ltd.). This software is promoted for use by all students for reading and writing support. The software provides a number of tools for students to access learning. First and foremost, it is a text reader that reads aloud individual words, sentences, and paragraphs in various formats (e.g., Word, Excel, PowerPoint, .Txt) back to the student who may not be able to read well, has a comprehension deficit, or has other related reading deficits. While this supports individual learning, it also avoids many stigmas experienced by students with reading disabilities (Hasselbring & Goin, 2004). It also allows students using a computer with headphones to read any content they choose without being singled out through a dependency on a teacher or other human supports because of their disabilities.

RWG also includes customization features for speech output, such as a number of voice styles in addition to controls for the speed, pitch, and tone of the voice output. These features allow students to customize their learning environment to their own liking. A key factor in this strategy has been to encourage each school to acquire a text reader site license, rather than single-station licenses. The site license enables students to have the technology available where and when it is most needed, that being in general education settings versus only in special education resource rooms. Anecdotal evidence also suggests that use of this technology enhances many students' self-concept as well as perceptions by peers, allowing students with disabilities to go from a position of "stigma to status".

RWG provides a host of other supports that can benefit all students. RWG includes a comprehensive speaking dictionary, thesaurus, spell checker, word prediction, regular and scientific calculator, and other tools to help in the reading and writing process. Each one of the features can be used discretely with headphones. Using the speech output feature, students can read back definitions found in the built-in dictionary or passages they compose using the word prediction feature.

Because each feature of RWG has the capability of speech output controlled by the students, these students are not hindered by their lack of reading skill. Through the click of a mouse or using alt key commands, the text reader software is able to read aloud digitized text, definitions, and writing passages that the students create and would like read back to them. Providing students the opportunity to hear what they have written allows them to make critical decisions and efficiently make changes to improve the quality of their compositions. This is especially important in the writing process.

### **Progress**

Ongoing training and support (Backhouse, 2003) play an important role in successful implementation. Without local, regional, and state level commitment to professional development and technical assistance, implementation will continue to be sporadic and limited. Caveland Educational Cooperative, a special education cooperative, offers important technical assistance to school districts within this region and has assigned staff members to provide district specific assistance and training. Western

Kentucky University, Caveland Educational Support Center and regional teachers through the support of ETRAIN have developed a motivational training DVD to help teachers use Read and Write Gold.

The DVD offers a wide variety of qualitative data. In general, comments were available from teachers, students and administrators. Teachers said the following.

- The students have enjoyed and benefited from using the program.
- Gets my students interested in reading and wanting to write.
- My higher-level functional children can really benefit from this..
- It has helped my students become excited about reading.
- Students enjoy hearing what they have written. Sometimes it helps them figure out simple mistakes.
- My children enjoy using Read and Write. They like the voices reading back to them. We have typed in short stories to read back to them.
- We currently only have one computer on which the software can be used and so using the program have been limited.

Comments were solicited from students. From these comments one can see an overall satisfaction from the student's perspective. The content of student comments is summarized below:

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