

PRODUCT FEATURE

Collaborating to make UDL a reality – Alternate access to Kurzweil 3000

By Jennifer Edge-Savage

Kurzweil 3000 is widely recognized as the most comprehensive and integrated solution for addressing language and literacy difficulties, offering content-independent support for reading, writing, studying and learning. Since Kurzweil 3000 is content-independent and individually customizable, it is a tool that can be used across curriculum areas and grade levels, and all the way through to the workplace in adulthood. What may not be well-known is that Kurzweil 3000 is also well-suited to support students who have difficulty physically accessing curriculum materials. Kurzweil 3000 software can access virtually any information, whether it is printed, electronic, or on the Web, and offers a variety of built-in accessibility features. Students who use alternative mice, such as a joystick, head-mouse, sip-and-puff switch or keyboard emulator access, or alternative keyboards can have access to the curriculum as well as all the wonderful support tools built in to Kurzweil 3000.

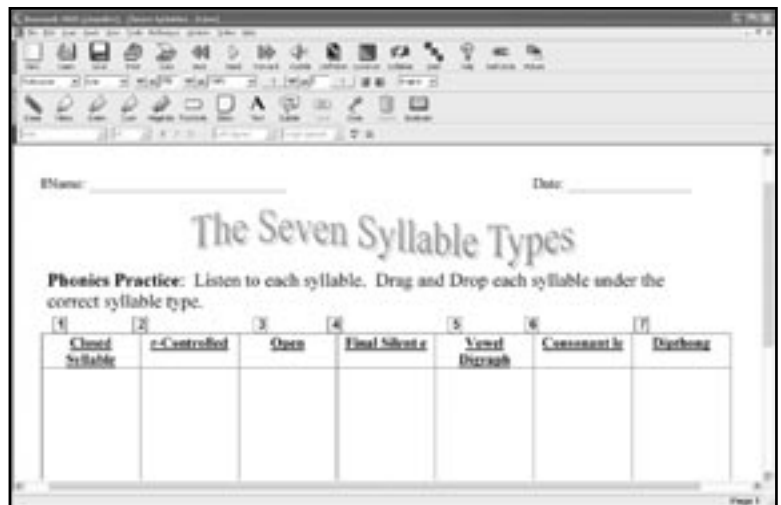
In collaboration with other assistive technology tools, Kurzweil 3000 can provide a digital means of engaging with text, making that

text inherently more accessible for those who use alternative methods for accessing the computer. Kurzweil 3000 is an important component of a Universally Designed Classroom.

Universal Design (UD), is defined as “the design of products and environments to be used by all people, to the greatest extent possible, without the need for adaptations or specialized design.” (The Center for Universal Design at North Carolina State University). The term Universal Design for Learning (UDL) was coined by CAST (Center for Applied Special Technology) in 1999. CAST found that the principles of Universal

Design in architecture and product development could be applied to developing useful educational tools. “Universal” does not mean a single solution that is ideal for everyone. UDL provides “a blueprint for creating flexible goals, methods, materials, and assessments that accommodate learner differences” (From Teaching Every Student in the Digital Age – Rose and Meyer). CAST cites three principles of UDL:

- Multiple means of representation – to give learners various ways of acquiring information and knowledge.



Kurzweil 3000 and Sopris West LANGUAGE! Activity

This article originally appeared in the August / September 2006 issue of *Closing The Gap*, Vol. 25 No. 3.

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• Multiple means of expression – to provide learners alternatives for demonstrating what they know.

• Multiple means of engagement – to tap into learners’ interests, offer appropriate challenges, and increase motivation.

Kurzweil 3000 embraces and supports the concept of Universal Design for Learning by making print and electronic

material available to a broad spectrum of students and offering multiple means of representation, expression and engagement for teachers and students. Kurzweil 3000 has numerous built-in features that can be customized to meet individual student needs.

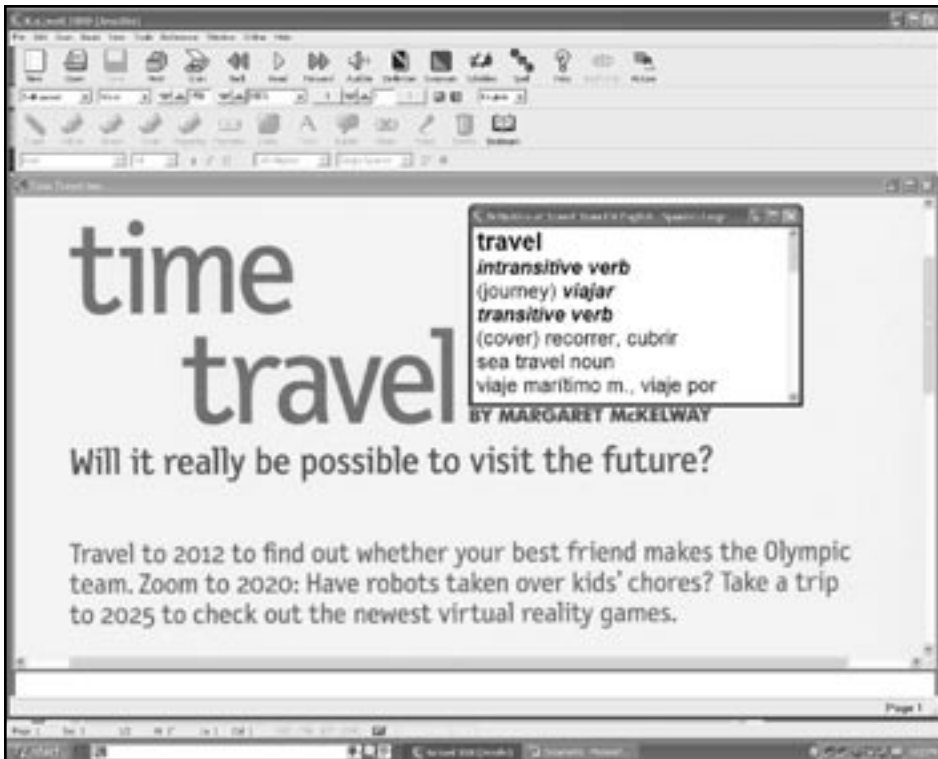
Kurzweil 3000 and Universal Design for Learning:

Multiple means of representation

Kurzweil 3000 provides the scaffolding needed for struggling students and students with physical challenges to access the general education curriculum and present information in more manageable ways.

Using Kurzweil 3000, you can:

- Easily change text size or color for greater visibility
- Enlarge the entire text
- Magnify individual words as they are spoken
- Change the Reading Speed or Voice
- Customize toolbars to make them more accessible
- Easily access audible reference tools such as dictionary, encyclopedia, thesaurus
- Create portable audio files of any text to provide an additional means of exposure to text
- Provide language support for students for whom English is a second language via the use of different language voices and foreign language dictionary support.
- Personalize instruction with dynamic note options to support different learning styles
- Digital opportunities for skills practice
- Demonstrate study strategies in an interactive, digital environment that is accessible to all students



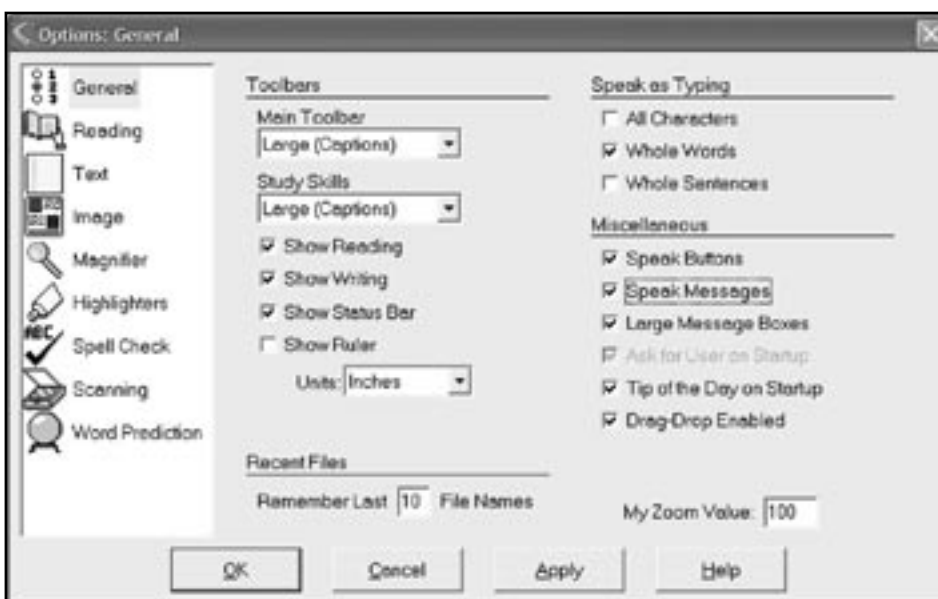
Kurzweil 3000 and additional Support for English Language Learners “English-Spanish dictionary support.”

Multiple means of expression

Kurzweil 3000 provides multiple, flexible ways for students to demonstrate their understanding. By allowing expression in a digital environment, students are offered varied means of expression and greater tolerance for making and correcting mistakes. The auditory support is a powerful tool for many students, but making it digital provides tremendous opportunities for physical access as well, whether or not audible support is needed.

Using Kurzweil 3000, you can:

- Answer text-based questions in a number of different ways: dictate, create audio note, highlight text, drag and drop text within or between documents
- Use virtually any computer to access Kurzweil 3000 functions



Kurzweil 3000 customizable options.

- Organize information by creating study notes and using digital highlighters
- Use keyboard equivalents to access most Kurzweil 3000 menu options
- Easily reread blocks of text, test instructions or questions as many times as needed to ensure comprehension, independently
- Proofread work by hearing test answers and written work read back
- Edit work using audible spell check
- Easily transfer files between Kurzweil 3000 and other applications for editing
- Facilitate writing using word prediction and customized vocabulary lists
- Use Kurzweil 3000 new Taskbar feature to add auditory text support to ANY application, especially useful for e-mail and instant messaging support

Multiple means of engagement

Kurzweil 3000 is content independent and can therefore be used across curriculum areas by individuals with different ages and abilities. It provides student and adult users with access to books at their interest level but beyond their independent reading level – a tremendous need for those who are being left behind because of decoding issues. The active learning and study strategies available with Kurzweil 3000 allow students to be more successfully engaged in the learning process. When students can manage tasks that once were extremely difficult or time-consuming, they develop a more positive attitude to their work, gain independence, and get the maximum benefit for their efforts. The success they experience using Kurzweil 3000 helps increase motivation and turn them into life-long learners.

Kurzweil 3000 and keyboard access

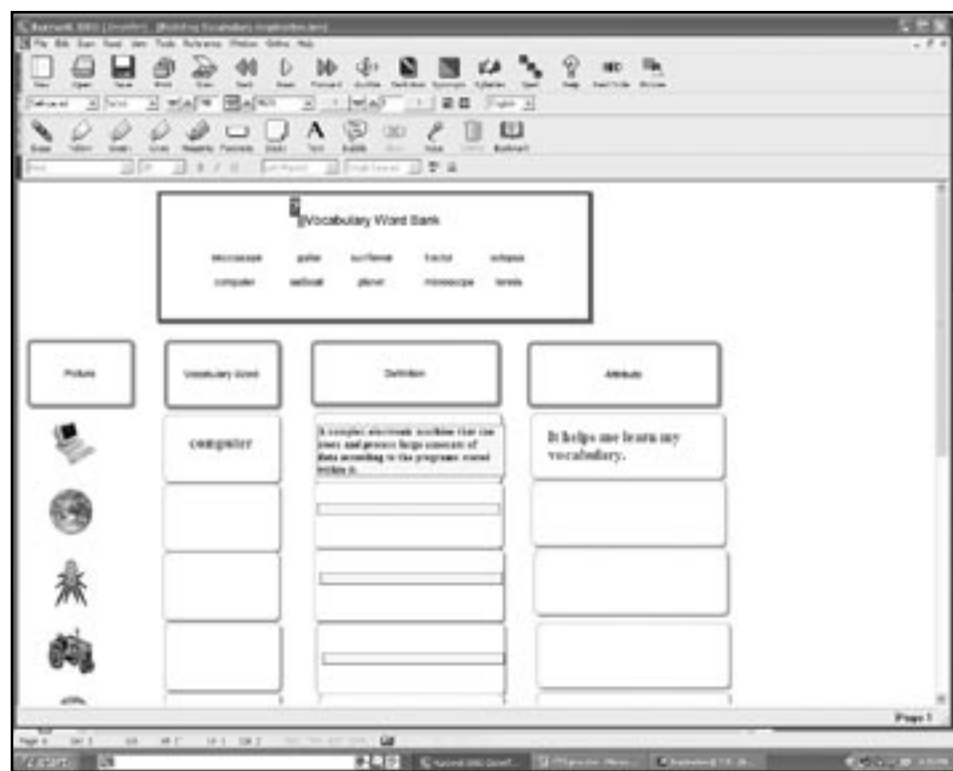
Kurzweil Educational Systems has made an effort to ensure that all functions with Kurzweil 3000 for Windows are keyboard accessible. For the Macintosh version, keyboard shortcuts can be individually customized and created using the Macintosh OS. Full keyboard accessibility allows for the use of keyboard shortcuts in programming a wide variety of alternative access devices, such as alternate keyboards, keyboard emulators, AAC devices, single switch access software, etc.

Judy Lariviere, Med, OTR/L presented at the Closing the Gap 2005 Conference

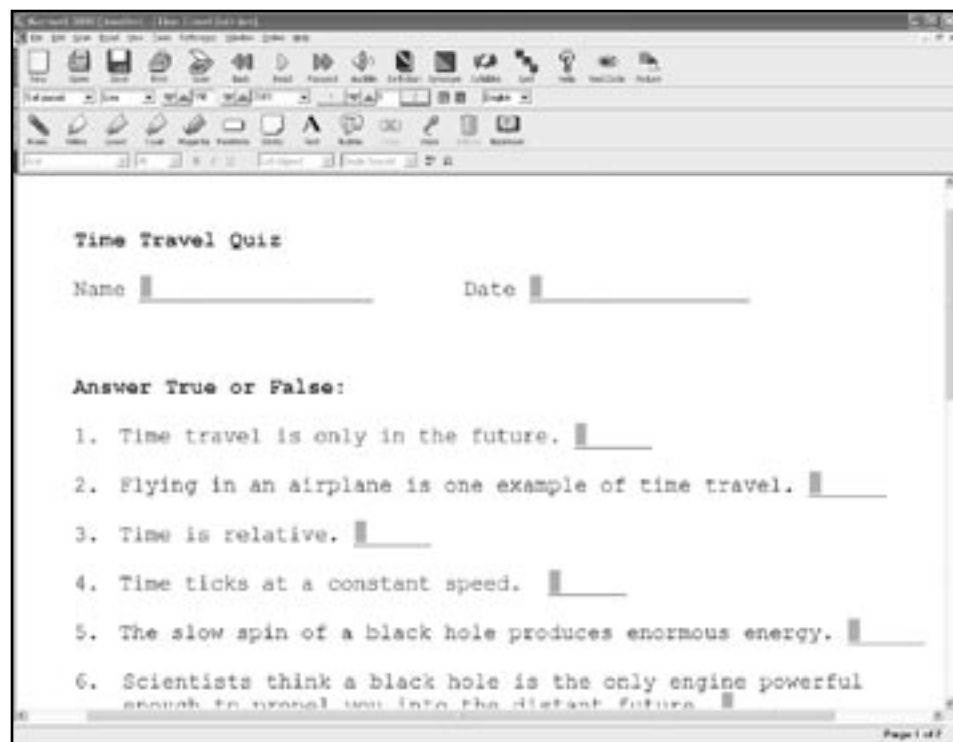
where she detailed her strategies for using AAC as keyboard emulators for accessing Kurzweil 3000 and allowing her clients to have increased, independent experience with text. A sample Kurzweil 3000 page for Prentke Romich's Vanguard is included

below. It is scaffolded with room to gradually increase the number of features that can be accessed.

For a list of Kurzweil 3000 Keyboard shortcuts: <[www.kurzweiledu.com/files/Kurzweil%203000%20V10%20Keyboard%](http://www.kurzweiledu.com/files/Kurzweil%203000%20V10%20Keyboard%20Shortcuts.pdf)



Kurzweil 3000 and Inspiration – Teacher created graphic organizer pulled in to Kurzweil 3000.



Kurzweil 3000 and digital access to tests and worksheets.

20Access%20Guide.pdf>. This information is also available in the Kurzweil 3000 user guide, Help Menu and Quick Reference Guide.

The need for collaboration

In spite of tremendous efforts to ensure that Kurzweil 3000 is accessible, this one tool is not sufficient to truly provide support for all students – and does not claim to

be a “magic bullet”. Therefore, in an effort to be a more universally accessible tool in the inclusive classroom, Kurzweil Educational Systems has collaborated with a number of well-known assistive technology companies: Intellitools, Madentec, Mayer-Johnson, VCom3D, and others in hopes of providing seamlessly integrated support for as many students as possible.

Kurzweil 3000 using the Mayer Johnson Picture Dictionary

Kurzweil Educational Systems collaborated with Mayer Johnson <www.mayer-johnson.com> to include access to users who own the Mayer Johnson Picture Communication Symbols via Kurzweil 3000 for Windows picture symbol dictionary as well as clip art or image libraries. It is possible to set up multiple picture dictionaries to be accessed from within Kurzweil 3000. Picture dictionaries give a visual representation of word meanings. Picture dictionaries, whether electronic or print, can aid in language learning. Instructions on how to use Picture Dictionaries within Kurzweil 3000 can be found here: <www.kurzweiledu.com/files/Picture.ASLOverview.pdf>.

Kurzweil 3000 and VCom3D’s ASL dictionary

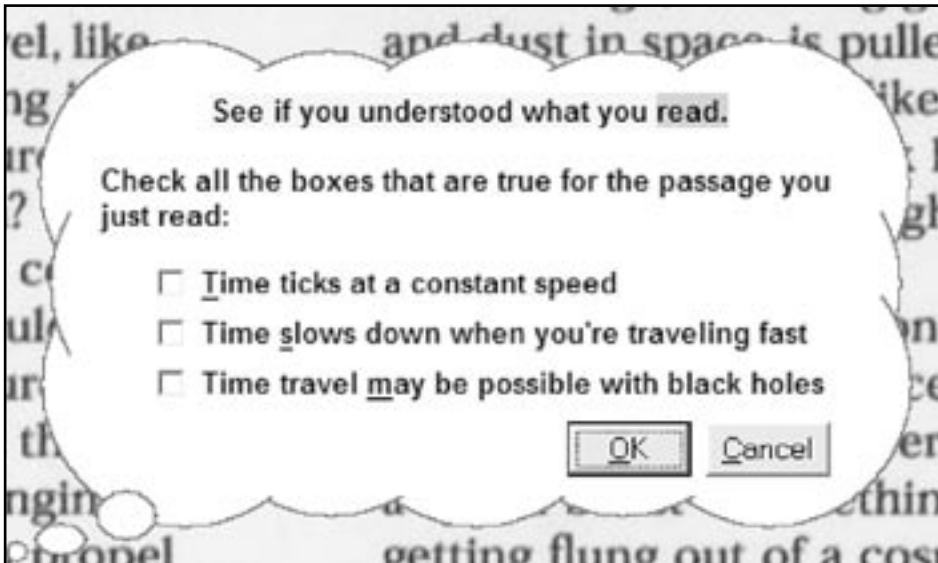
Kurzweil Educational Systems collaborated with VCom3D <www.vcom3d.com> to include access to users who own VCom3D’s American Sign Language animations. These ASL animations visually describe the sign movements with motion and are useful for individuals who are deaf or those who would like to learn ASL. Kurzweil 3000 version 9.01 and above supports ASL animations. Instructions can be found here: <www.kurzweiledu.com/files/Picture.ASLOverview.pdf>.

Kurzweil 3000 and voice recognition

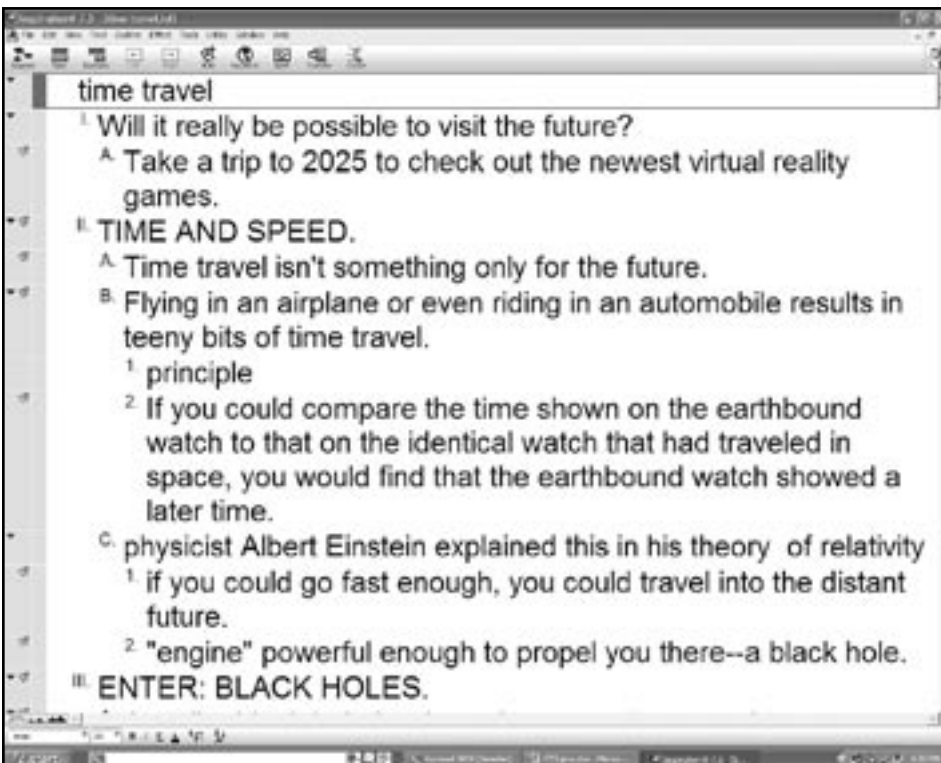
Although Kurzweil 3000 itself does not have voice recognition built in, it can work in conjunction with speech-to-text software. Kurzweil 3000 allows voice recognition users to dictate text within blank word processing documents or notes within Kurzweil 3000. In addition, Kurzweil 3000 has provided additional voice command functions for use with previous versions of Dragon Naturally Speaking – Preferred.

Kurzweil 3000 and Intellikeys overlays from Intellitools

Long before Intellitools <www.intellitools.com> became part of our larger Cambium Learning Technologies family, Kurzweil Educational Systems collaborated with them to create customizable Kurzweil 3000 overlays as part of their Popular Software Overlay kit. The Kurzweil 3000



Kurzweil 3000 and dynamic, accessible comprehension questions embedded in scanned text.



Kurzweil 3000 and Inspiration – Pulling highlighted text from Kurzweil 3000 into an Inspiration Outline.

overlay is designed to provide access to Kurzweil 3000's many reading, writing and study skills tools for IntelliKeys users. IntelliKeys is a programmable alternative keyboard for students or adults who have difficulty using a standard keyboard. It plugs into a computer's USB port, providing computer access to individuals with physical, visual, or cognitive disabilities. It is ideal for users who require alternate access to the keyboard.

To use the Kurzweil 3000 overlays, you must own the Intellitools Popular Software Overlays. Simply launch Kurzweil 3000 and insert the overlay on your IntelliKeys USB. Advanced and beginner overlays were created. Features available on the advanced overlay include reading, writing, bookmarking, highlighting, word-prediction, spell-check, dictionary and many others. The beginner reading only provides easy access to simple reading navigation tools. Overlay Maker 3 can be used to easily modify these overlays to meet individual student needs.

Note: At this time, not available for the Macintosh version of Kurzweil 3000, but will be available with the release of Kurzweil 3000 for Macintosh version 4.0.

Kurzweil 3000 with IntelliSwitch and Discover USB software from Madentec

Kurzweil Educational Systems worked with Mark Sardo, formerly of Madentec, to use Discover software to make Kurzweil 3000 accessible to switch users. IntelliSwitch (A collaboration between Madentec and Intellitools) is an easy and flexible wireless switch interface. IntelliSwitch is compatible with Discover software, Intellitools software, and most self-scanning software. It enables individuals with motor impairments to perform all keyboard and mouse functions by simply pressing a switch. A Kurzweil 3000 setup was made for use with Discover:Screen, a customizable on-screen keyboard that is fully switch accessible.

Kurzweil 3000 – striving for universal access for all students

Kurzweil 3000 isn't just for students who are struggling with access issues. Kurzweil 3000 has a host of powerful digital tools that are valuable for ALL students, but necessary for some. UDL advocates the design

of products that are usable by all students to the greatest extent possible without the need for further adaptation. With collaboration, Kurzweil 3000 is becoming truly universal, providing digital solutions for students struggling with literacy skills, students struggling with physically accessing the curriculum, and all students in general education that might benefit from access to digital text. Kurzweil 3000 enables the conversion of text materials into a format

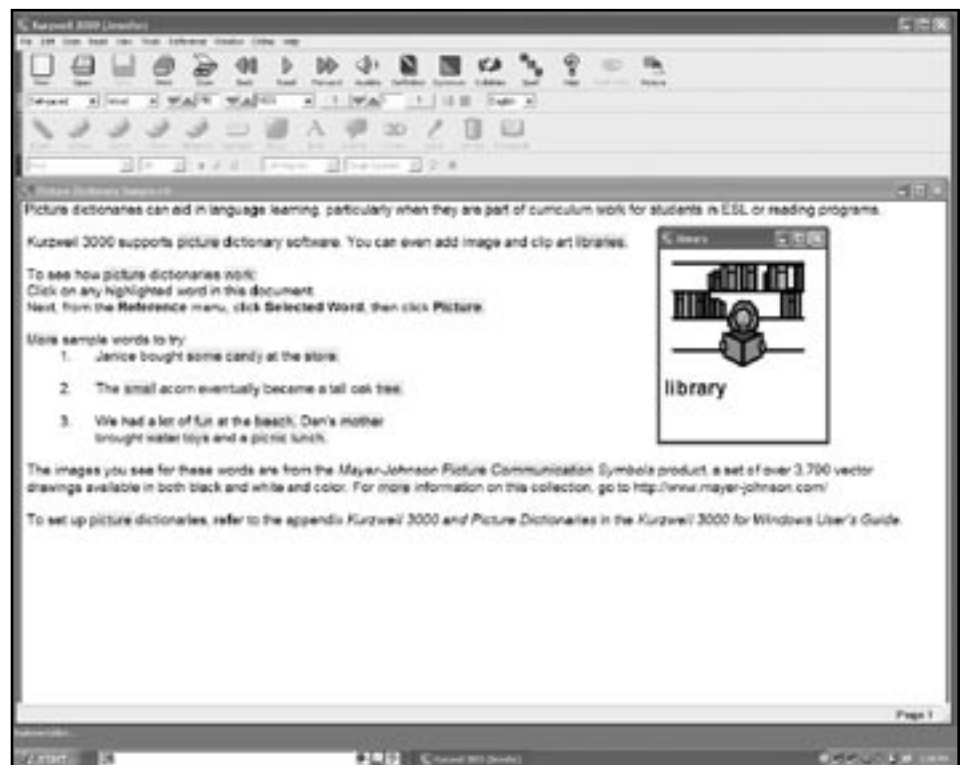
that provides a range of accommodations most individuals need to access text-based materials successfully, develop needed skills, and become independent life-long learners.

Resources

**Cambium Learning Technologies
Kurzweil Educational Systems** (Kurzweil 3000) – 100 Crosby Drive, Bedford MA 02170; Phone: 781-276-0600, Toll Free:



Kurzweil 3000 with AAC devices – Prentke Romich Vanguard overlay provided by Judy Lariviere.



Kurzweil 3000 using the Mayer Johnson Picture Dictionary.

800-894-5374; Fax: 781-276-0650; Web site: <www.intellitools.com>.

Cambium Learning Technologies

Intellitools (IntelliKeys, IntelliSwitch)
1720 Corporate Circle, Petaluma, CA 94954; Phone: 707-773-2000 (Monday - Friday, 8:00 pm - 5:00 pm PST), Toll-Free: 800-899-6687 (U.S. and Canada); Fax: 707-773-2001 (24 hours a day); Web site: <www.intellitools.com>.

Madentec (Discover products, IntelliSwitch) – 4664 99 St., Edmonton, Alberta, Canada T6E 5H5; Phone: 780-450-8926; Fax: 780-988-6182, Toll Free: 877-623-3682; Web site: <www.madentec.com>.

Nuance (Dragon Naturally Speaking – Preferred) – 1 Wayside Road, Burlington, MA 01803; Phone: 781-565-5000; Fax: 781-565-5001; Web site: <www.nuance.com>.

Mayer-Johnson LLC (Picture Symbol Library) – P.O. Box 1579, Solana Beach, CA 92075; Phone: 800-588-4548; Fax: 858-550-0449; Web site: <www.mayer-johnson.com>.

Prentke Romich Company (Vanguard) – 1022 Heyl Road, Wooster, OH 44691; Phone: 800-262-1984; Fax: 330-263-4829; Web site: <www.prentrom.com>.

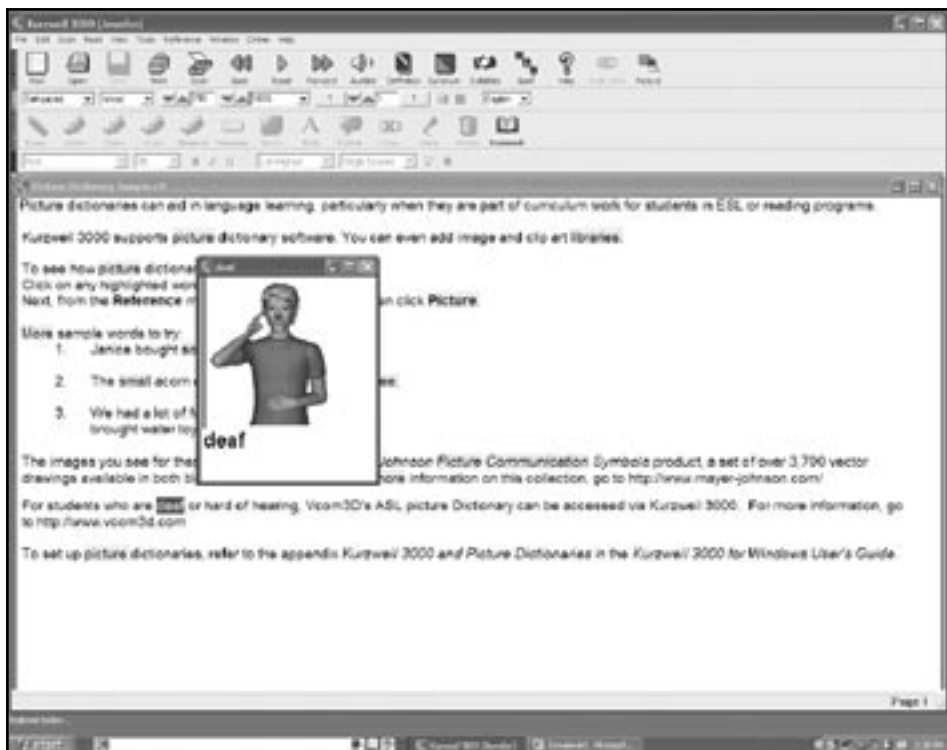
DynaVox Technologies (Dynavox) – 2100 Wharton Street, Suite 400, Pittsburgh, PA 15203; Phone: 866-396-2869; Web site: <www.dynavoxsys.com>.

Inspiration Software, Inc. – 9400 SW Beaverton-Hillsdale Hwy, Suite 300, Beaverton, OR 97005-3300; Phone: 503-297-3004, Toll free: 800-877-4292; Fax: 503-297-4676; Web site: <www.inspiration.com>.

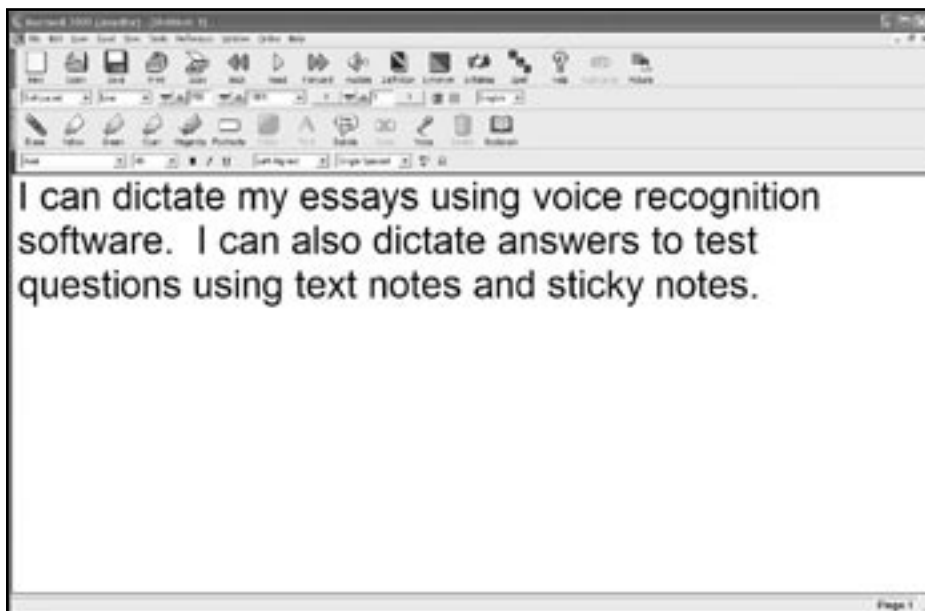
VCom 3D (ASL Animations) – 3452 Lake Lynda Drive, Suite 260, Orlando, FL 32817; Phone: 407-737-7310; Fax: 407-737-6821; Web site: <www.vcom3d.com>.

Sopris West Educational Services (LANGUAGE!) – A Cambium Learning Company – Sopris West, 4093 Specialty Place, Longmont, CO 80504; Phone: 303-651-2829 or 800-547-6747; Fax: 888-819-7767; Web site: <www.sopriswest.com>.

CAST – 40 Harvard Mills Square, Suite 3, Wakefield, MA 01880-3233; Phone: 781-245-2212; Web site: <www.cast.org>.



Kurzweil 3000 using VCom3D's ASL dictionary.



Kurzweil 3000 used in conjunction with voice recognition products.

This article was originally published in *Closing The Gap*. For more information visit www.closingthegap.com

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Kurzweil 3000 Intellikeys Overlay.



Kurzweil 3000 Switch Setup – Madentec’s Discover.



Kurzweil 3000 Intellikeys Reading Overlay.



IntelliSwitch.