

# Closing The Gap

APRIL / MAY, 2009  
VOLUME 28 - NUMBER 1

**AAC USERS LIVING IN A FAST PACED SOCIETY**

**A CONTINUUM OF AT SOLUTIONS FOR  
CONFUSION AND MEMORY LOSS  
AFTER TRAUMATIC BRAIN INJURY**

**DYSLEXIA – SPELLING OUT AN ANSWER WITH  
THE WORDLOGIC PREDICTIVE TEXT SOLUTION**

**SHOW, PRACTICE AND CHALLENGE  
STUDENTS IN MATH  
WITH INTELLITOOLS CLASSROOM SUITE 4**

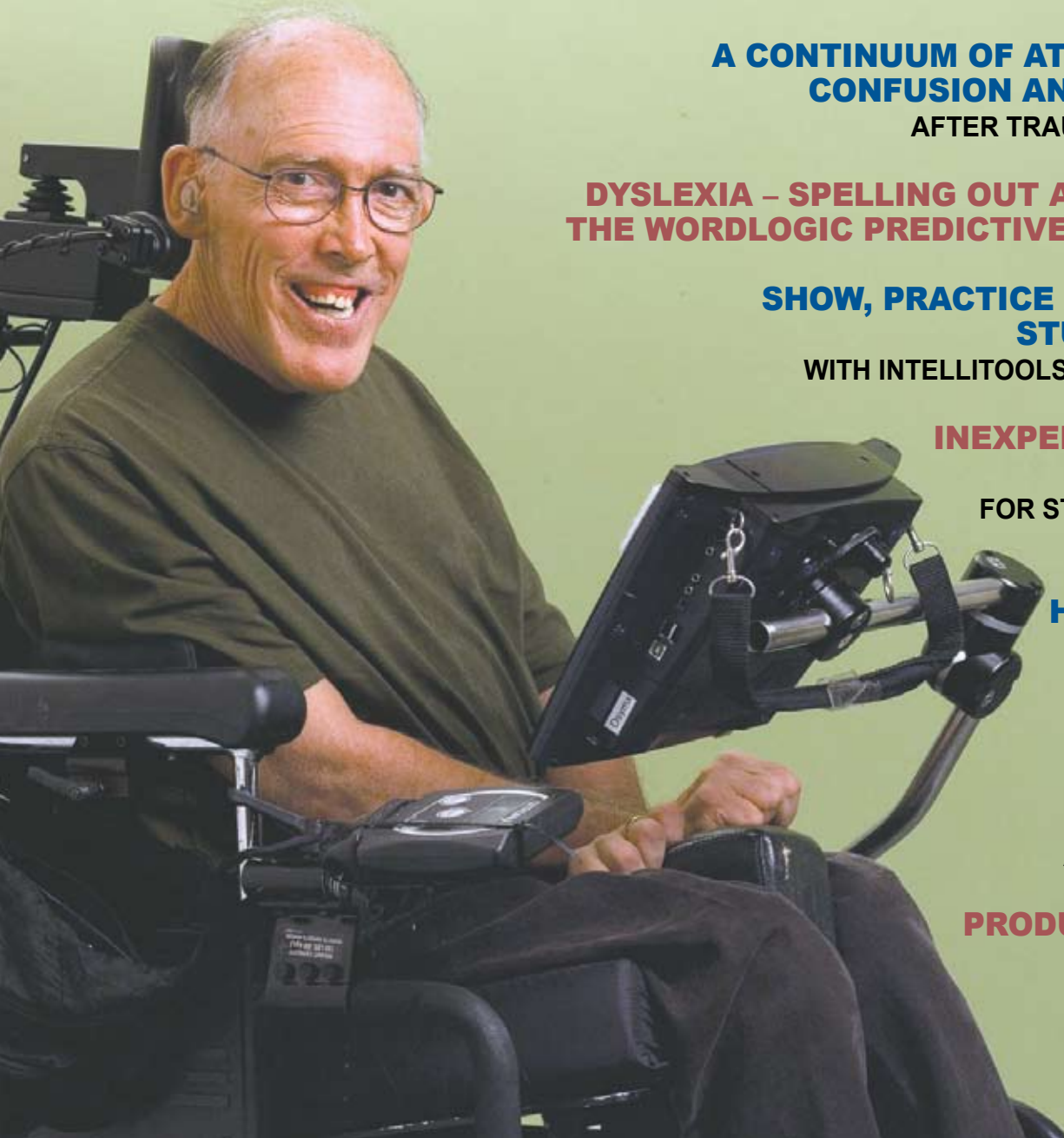
**INEXPENSIVE ASSISTIVE  
TECHNOLOGY  
FOR STRUGGLING READERS**

**1, 2, 3...  
HEY, LOOK AT ME!  
FASHION SHOW**

**DISCOVERIES**

**THE MAKING OF  
PROLOQUO2GO:  
AAC IN YOUR POCKET**

**PRODUCT SPOTLIGHTS**



# WordQ<sup>®</sup> SpeakQ<sup>™</sup>



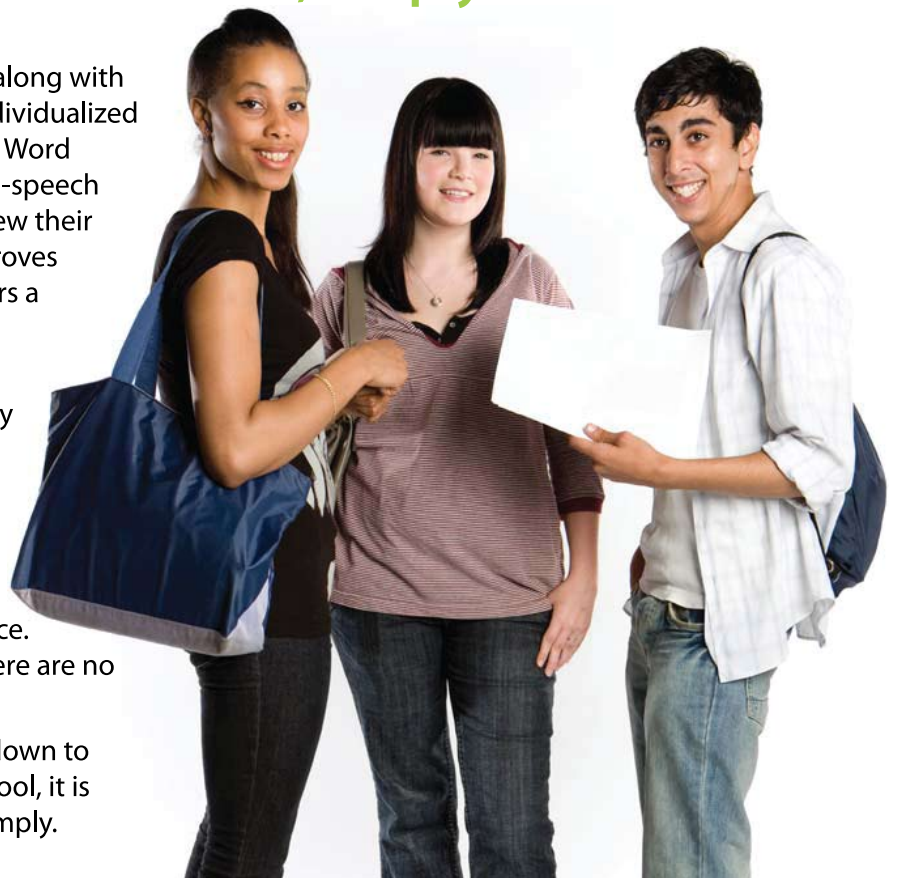
*writing made easier!*

## It is about getting your ideas down, simply:

**WordQ** is an easy-to-use software tool used along with all standard writing applications. It assists individualized learning by those who struggle with writing. Word prediction suggests words to use and text-to-speech feedback helps students independently review their work. *WordQ* helps develop confidence, improves productivity, increases self-esteem and fosters a spirit of inclusion.

**SpeakQ** plugs into *WordQ*, adding simple speech recognition. It helps users, particularly those with learning differences, who cannot use other speech recognition systems because of reading demands and complexity. *SpeakQ* features a simple training interface where the computer speaks and the student responds in their voice. To keep using speech recognition simple, there are no verbal commands.

With *WordQ* and *SpeakQ* you can finally get down to writing. Like a pen, it is not about using the tool, it is about your ideas and getting them down, simply.



Quillsoft

Download a *WordQ* & *SpeakQ* demo  
or call for a free CD demo

[www.wordq.com](http://www.wordq.com)

1-866-629-6737

*WordQ* and *SpeakQ* are trademarks of Bloorview Kids Rehab

# Closing The Gap

APRIL / MAY, 2009  
VOLUME 28 – NUMBER 1

## Reader's Exchange

### 25 123 – Hey Look at Me!

Fashion Show: Students of all Abilities – on the Stage and in the Spotlight!

By Mo Buti



## Product Feature

### 26 Dyslexia – Spelling Out an Answer with the WordLogic Predictive Text Solution



## Product Spotlights

### 32 New AT Products and Announcements

- MacSpeech, Inc. Releases MacSpeech Dictate 1.3
- Gus Communications releases Blackberry and iPhone Text-To-Speech Communication Aid
- Humanware unveils KeySoft 8.0
- JITA Technologies, LLC, Announces the Release of the Speech Assistant
- Plustek Announces Line of Bookreaders to Help with Learning Skills
- AT KidSystems Unveils New Line of Software and Demonstrates Latest Enhancements to Cosmo's Learning Systems
- Hachette Book Group Partners with Bookshare
- FACELAND Software Helps Children with Autism Recognize Facial Expression of Emotions – A Social Literacy Skill

## Featured Stories

### 5 DISKoveries

Special Needs: New Software, Books, DVDs and Professional Resources

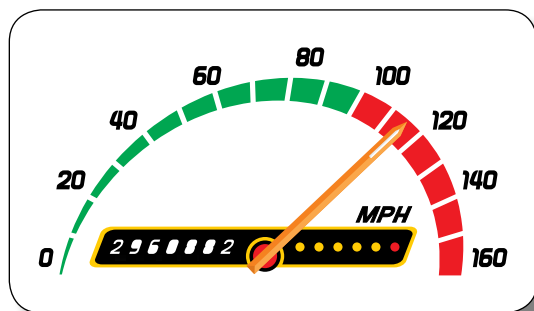
By Joan Tanenhaus

### 13 Show, Practice and Challenge Students in Math with IntelliTools Classroom Suite 4

By John Laskarzewski and Lauri Susi

### 17 AAC Users Living in a Fast Paced Society

By Rick Hohn



### 19 A Continuum of AT Solutions for Confusion and Memory Loss After Traumatic Brain Injury

By Anne Johnson, Joan Cunningham and Patti Murphy

### 22 Inexpensive Assistive Technology for Struggling Readers

By Leon Reisberg

### 28 The Making of Proloquo2Go: AAC in Your Pocket

By Samuel Sennott

COVER PHOTO: Rick Hohn is an AAC Specialist for DynaVox and Mayor-Johnson.

# PointScribe

## Interactive Handwriting System

**PointScribe** lessons are engaging and fun! The system utilizes multi-sensory stimulation that brings handwriting lessons to life. It's easy to use and customize to create motivational learning environments that teach children with special needs to handwrite. The data management system makes it easy to quantify progress, produce charts and optimize lessons.

*"The music and visuals are wonderful for engaging my students, including those with Autism and other disabilities.*

*I have had students that have refused to write, learn their letters and numbers on the computer because it is so engaging."*

*~ Laura Johnson, OTR*



**www.ultrathera.com**  
**719-685-7883**

## Closing The Gap

### SUBSCRIPTIONS

\$36 per year in the United States. \$52 per year to Canada and Mexico (air mail.) All subscriptions from outside the United States must be accompanied by a money order or a check drawn on a U.S. bank and payable in U.S. funds. Purchase orders are accepted from schools or institutions in the United States.

### PUBLICATION INFORMATION

Closing The Gap (ISSN: 0886-1935) is published bi-monthly in February, April, June, August, October and December. Single copies are available for \$7.00 (postpaid) for U.S. residents. Add \$2.00 for postage outside the U.S. The annual Resource Directory issue sells for \$16.95 plus postage and handling. Article reprints available, please contact the Managing Editor for details.

### CONTACT INFORMATION

Please address all correspondence to Closing The Gap, P.O. Box 68, Henderson, MN 56044. Telephone 507-248-3294; Fax 507-248-3810. E-mail <info@closingthegap.com>; Web site <www.closingthegap.com>.

### COPYRIGHT

Entire content is copyright 2009 by Closing The Gap, Inc., all rights reserved. Reproduction in whole or in part without written permission is strictly prohibited.

### EDITOR'S NOTE

The information provided by Closing The Gap, Inc. in no way serves as an endorsement or guarantee by Closing The Gap, Inc.

**www.closingthegap.com**

Dolores Hagen  
PUBLISHER

Budd Hagen  
EDITOR

Connie Kneip  
VICE PRESIDENT / GENERAL MANAGER

Megan Turek  
MANAGING EDITOR/ SALES

Jan Latzke  
SUBSCRIPTIONS

Sarah Anderson  
ADMINISTRATIVE ASSISTANT

Becky Hagen  
SALES

Marc Hagen  
WEB DEVELOPMENT

# DISKoveries

## Special Needs: New Software, Books, DVDs and Professional Resources

By Joan Tanenhaus

**Switch Skills for Two Set 1 & Set 2** (Inclusive TLC Special Needs: 1-800-462-0930, [www.inclusivetlc.com](http://www.inclusivetlc.com)) This is an excellent series of new programs, for Macintosh and Windows, designed to introduce the use of two switches in a sequential order. **Switch Skills for Two Set 1** has four different kinds of activities.

In "Controlling Two Separate Objects," users learn that the two switches cause different things to happen. The two activities are two cause and effect activities on one screen. Two objects are shown, one on each side of the screen. One side is controlled by one switch, the other side by the other switch (or with the keyboard space and enter). There are rockets, dancing monsters, balloon play and big trucks. In "Related Objects," there is a relationship between the objects or characters on the screen. This introduces the learner to the idea that the two switches

can control a single activity. Animations started by one switch can be interrupted by another. For example, switch one makes a very noisy person come through the door and switch two makes another go "shh." In "Interacting Objects," each object is controlled by one switch and

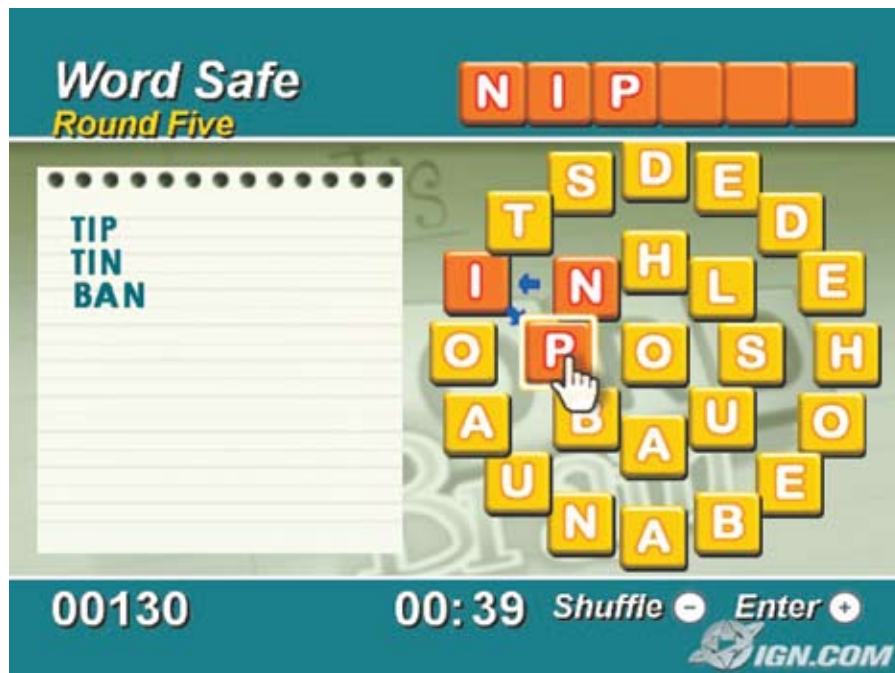
either selection may influence the other. For example, switch one moves the car on the left and switch two moves the car on the right. Watch to see who gets bumped. In the fourth activity, "One Object, Two Actions," only one object is on screen and the two switches affect this object in different ways. For example, press switch

done." Learners can build a tin can tower and knock it down, make a rocket and then launch it. In "Move and Get" activities, switch one is used to move an object to a target and switch two is used to confirm or act. For example, switch one moves the crate until it is above the truck, then switch two lowers it onto the truck. The graphics

and animations in both these programs are well done, with clear foreground-background and the animations and activities are well designed and with a sense of humor as well. These activities are all good to use for turn-taking and cooperative play between two switch users. This will be an excellent addition to the software you use to teach young switch users.

**Single Switch Games2** (Marblesoft: 888-755-1402, [www.marblesoft.com](http://www.marblesoft.com)) This is a collection of 14 fun games for switch users, including four games for two players. All activities are controlled

with a single switch, with four modes of play, including cause & effect. Games include a single switch maze, Mr. Marblehead (help Mr. Marblehead roll through mazes of pipes, platforms, stairs, etc. and avoid the pitfalls), Switching Lanes (racing program), and Switch Invaders. There's a



Margot's Word Brain (Zoo Games).

one to make the basketball player move around the court and switch two to make him take a shot at the basket. **Switch Skills for Two Set 2** has 11 activities in two different groups. In "Build Up," one switch is used to add items to the screen and the second switch is used to signal "all

great slingshot gallery and a game called Scurry that are good for switch timing. Other games include a single switch solitaire and concentration. The program works with both Macintosh and Windows.

**LanguageLinks & Prepositions! Syntax Tests CD** (Laureate Learning: [www.laureatelearning.com](http://www.laureatelearning.com), 800-562-6801) Laureate Learning is now offering a

free Syntax Tests CD to help professionals and parents assess 33 basic grammatical forms and determine whether a student can benefit from using two of Laureate's programs, LanguageLinks: Syntax Assessment & Intervention and Prepositions! To request a free copy of the Syntax Tests CD, call 1-800-562-6801 or visit [www.Laureate-Learning.com](http://www.Laureate-Learning.com) (See review of **Language**

**Links: Syntax Assessment & Intervention Level 1** and **Prepositions! Sterling Edition** in DISKoveries in Closing The Gap, October, 2007).

**Teaching Access Ability** (SoftTouch: 877-763-8868, [www.SoftTouch.com](http://www.SoftTouch.com)) This program is designed to help students with disabilities access a computer with a mouse, switch, two switches, touchscreen and IntelliKeys keyboard. Students are taken through step-by-step instruction to use the single switch (how to press and release and how to make appropriate selections). In Mouse School, students will learn to control the mouse horizontally, vertically and diagonally; to click the mouse appropriately to make meaningful selections; to click and drag and to double click. Touch Screen learning includes using the entire screen active with and without cues to making selection from two to nine choices. Two switch step scanning covers using two switches with two choices and moving (with switch one) and selecting (with switch two). There are many options for graphics for younger and older students, cursor selection, verbal cues, auditory scanning, etc. Student data is recorded and can be printed.

**SPELL-Links for Everyday Writing** (Learning by Design: 847-328-8390, [www.learningbydesign.com](http://www.learningbydesign.com)) This spelling resource was originally developed to be used in conjunction with the SPELL-Links to Reading & Writing curriculum (reviewed in DISKoveries in the April/May 2005), but it can also be used as a stand-alone system by speech-language pathologists and special education teachers with individual students who are not responding to standard classroom spelling instruction. (If this curriculum is not helpful, then a full SPELL-2 assessment is recommended). There are 14 spelling strategies that the students are taught. These include, for example, Sound It Out (writing at least one letter for each sound in the word); No Fouls & Play by the Rules (understanding consonant sounds and vowel sounds, allowable spellings for each (i.e. the "t" sound can be spelled t, tt, bt, pt, ct, cht, tw) and the spelling rules of when to use each). This strategy also includes consonant sound combinations, contractions, possessives, prefixes, suffixes); Use Rhyme This Time (for assisting the spelling of endings of a word); Spell What You Mean & Mean What You Spell (homophones) and many more. These strategies are presented in a Student Resource Book (in detail and with worksheets for training), on a mouse



Single Switch Games2 (Marblesoft).



Switch Skills for Two Set 2 (Inclusive TLC Special Needs).

pad, and in chart form for quick reference during writing tasks. There are also strategy stickers (1-14) which can be used to review misspelled words and identify which strategy needs to be used to spell the words correctly. For more information on the SPELL assessment and SPELL-Links curriculum materials, visit the Web site at [www.learningbydesign.com](http://www.learningbydesign.com).

Activity Trainer (Accelerations Educational Software: 803-233-0541, [www.dttrainer.com](http://www.dttrainer.com)) Based on the research-based Video Modeling teaching method, this new software program, from the publishers of the DTTrainer, is a teaching tool that uses videos to teach a wide range of targeted activities or skills, from simple to complex. It includes a wide range of options to customize, modify and create new activities. Ready-to-use activities include categories such as Academic, Communication, Social Speech, Non Verbal Imitation, Self Help and more. Most of the currently available activities are on the preschool and early elementary level. The videos can be used to teach new skills and then students are transitioned to less supportive prompts like images, text and audio. Data collection features track student performance. The Activity Trainer comes with a library of ready-to-use activities and one year of updates and support. If you visit the Web site, you can download a free 30-day trial and also see a listing of Activities Library activities. This is a very powerful and well designed program that is very effective in teaching young children with autism and others who benefit from strong visual support. Activity Trainer works with Windows XP; Vista and Mac versions are coming soon.

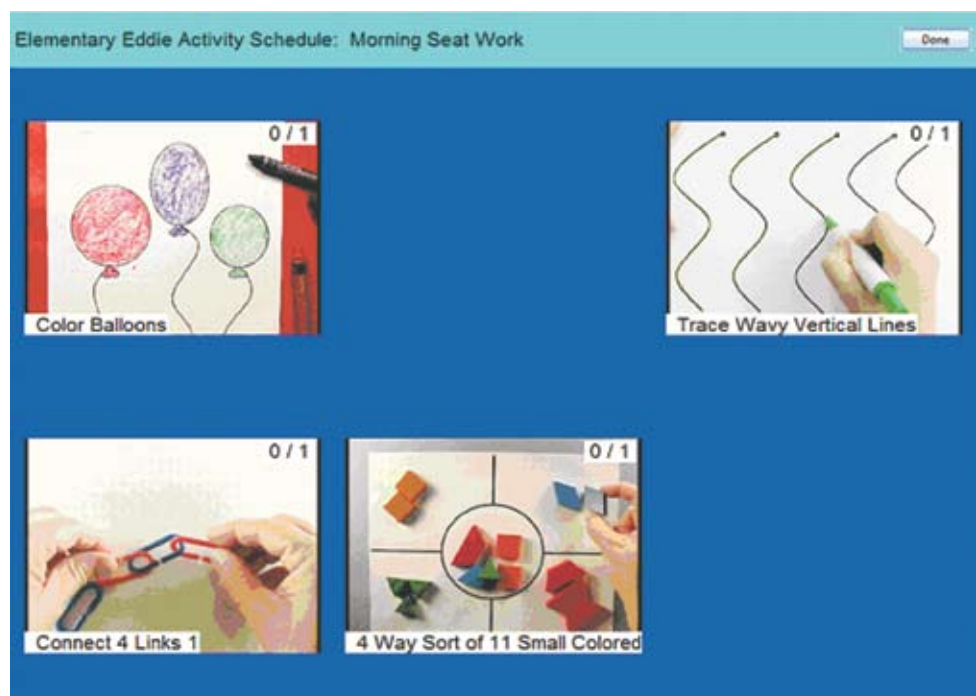
**Skill Building Buddies** (Mazzarella Media: [www.skillbuidlingbuddies.com](http://www.skillbuidlingbuddies.com)) This is a series of two DVDs designed for children with ASD and other social interaction challenges. **Handling Transitions and Change** was developed to help children learn techniques and skills to handle challenges they face. With a combination of animation and live-action real scenarios, exercises take viewers through the process of working through situations, with emphasis on "look, listen and remain calm." This first video deals with situations such as changing clothes, choosing a different snack, adjusting to schedule changes, etc. **Sharing and Taking Turns**, the second in the series, contains chapters on sharing, taking turns, saying "not now," asking for a turn and waiting for your turn. Through

live-action vignettes, appropriate strategies are demonstrated by children in a clear way. These strategies are then reinforced through music videos. Visit the Web site for additional videos on adaptive, social and motor skills. In addition, the new and outstanding **Skill Building Buddies** Web site provides parents, educators and therapists with a library of effective video-based interventions online and at no cost. Go to the Skill Building Center, choose a video or search by keyword (i.e. sharing, haircut) to find videos on specific skill areas. You will also find a section called Spectrum View. This area is designed to give parents and caregivers direct access to experts in all aspects of care for the child with special needs. These videos will present new and developing technologies and strategies that parent and teachers can use to help their children.

**Kurzweil V11 USB** (Kurzweil Educational System: 800-894-5374, [www.kurzweiledu.com](http://www.kurzweiledu.com)) The entire Kurzweil 3000 series is an outstanding reading, writing and learning program for students with visual, reading, writing or learning difficulties, appropriate for elementary through college level. The new Version 11 is available in a USB version that lets students and teachers access Kurzweil 3000 from any Windows computer without installing the software. Saving files and user settings right on the flash drive lets students have access to their files whatever computer they are using. For teachers and AT

specialists, it is great for demonstrating Kurzweil at IEP meetings, showing parents different features, presenting at conferences, planning lessons, moving files from one classroom computer to another. It allows a limited number of licenses to be purchased and the program can be used anywhere in the school without having to install it on a network. Version 11 of Kurzweil presents some new features. These include: more research based writing tools (brainstorming ideas with its graphic organizer and outline view, column note taking feature, highlighters to select information); new high quality Spanish text-to-speech voices; draft tools for writing text, reading it back, accessing reference tools such as word prediction); writing templates that start students with structure for reports; word lists for word support in areas such as transition words, summary verbs and conclusions; as well as a customizable checklist of proofreading and reviewing tasks. For more details and information on other features of Kurzweil, you can view an online Flash demonstration of key features or request a trial CD by going to the Web site at [www.kurzweiledu.com](http://www.kurzweiledu.com). (A full review of Kurzweil and its features was in DISKoveries, in the October/November 2006 issue.)

**Giggles Baby Nursery Rhymes** (Leveractive: 866-488-7391, [www.giggles.net](http://www.giggles.net)) This is the fourth program in the wonderful series. Although not specifically designed for special needs, these



Activity Trainer (Accelerations Educational Software).

Macintosh and Windows programs are excellent cause and effect programs activated by pressing any key and/or clicking the mouse button. There are 10 nursery rhymes: Mary Had a Little Lamb, Humpty-Dumpty, Hickory Dickory Dock, Twinkle Twinkle, Jack & Jill, London Bridge and others. When the rhyme is selected, children can hear the rhyme sung or have music of different kinds. Each key press animates the nursery rhyme. Moving and clicking the mouse button adds additional effects and surprises. There are also four bonus activities - with key press and mouse, animations for Pop Goes the Weasel, Pat A Cake, Hey Diddle and Row, Row Your Boat. Great graphics, great sound - great fun for young children that works very well with single switch (using a switch interface that emulates space or letters) as well as keyboard. Nursery Rhymes is fully compatible with Windows Vista and Mac OS X Leopard and is widescreen compatible as well.

**JumpStart Advanced World** (Knowledge Adventure: [www.jumpstart.com](http://www.jumpstart.com)) **JumpStart Preschool World** is a four CD set with over 60 games and missions in areas such as My Town, My Neighborhood, My Craft Corner and My Storybooks. Children will play games to learn letter names, match uppercase letters, count, recognize patterns, sort and categorize. They will learn new vocabulary, understand story order, and work on basic phonic skills. In **JumpStart Kindergarten World**, they will build reading skills, match shapes and colors, learn letter sounds, and more. There is an interactive DVD game (Frankie's Field Trip) and a Sing-Along CD. In **JumpStart 1<sup>st</sup> Grade World**, children will master math skills

and build reading skills, as well as problem solving, music, art and other activities that strengthen school skills. There is another interactive DVD game, a Sing & Learn CD and a workbook. **JumpStart 2<sup>nd</sup> Grade World** has activities in the areas of reading, math, thinking, music and art, and includes an interactive DVD game, Polly's Power Prep. There is a Listen & Learn CD

that has science and language arts activities. The programs look for an Internet connection during install but can be used without.

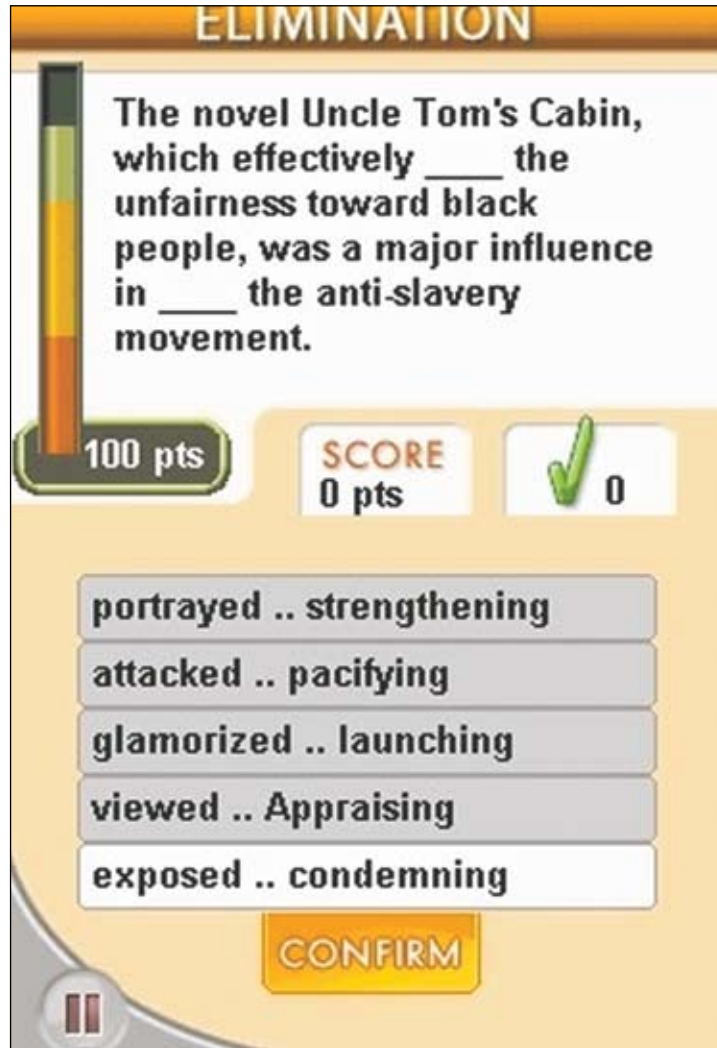
**Didi & Ditto Preschool-Mother Nature's Visit** (Kutoka: 877-8KUTOKA, [www.kutoka.com](http://www.kutoka.com)) Targeted to children ages 2-4, this fun new program is the third title in the Didi & Ditto series. Available on DVD-ROM for Mac and Windows, it features the brother and sister twin beavers who are preparing a party for Mother Nature. During the adventure, which they can play as either the female

The activities are embedded in the game and can also be practiced individually. This is a well designed and fun program for preschoolers.

**Type to Learn 4 Agents of Information** (Sunburst: [www.sunburst.com](http://www.sunburst.com), 800-338-3457) Sunburst and Type to Learn have always set the standard for keyboarding and touch-typing curriculum for school aged students. This new program, for Windows and Macintosh, is a sequential touch typing instruction program for Kindergarten to grade 12. It contains 100 leveled lessons (review, demonstration, practice and assessment) with emphasis on home row and proper fingering, as well as accuracy and speed. These lessons are set within a futuristic adventure with five activities for each lesson. These teach left-right hand coordination, speed, accuracy, cadence and the use of the shift key. All typing skills are transferred to age appropriate, real world typing and cross curricular content, such as historical documents and frequently used quick blends and quick words. Throughout the program, there are assessments as well as reports. In addition, there is Spanish and ESL content, closed captioning options, text to speech, and fonts that can be enhanced by size and colors. The program is aligned to the National Educational Technology Standards for Students. Teachers can also add their own content for typing activities. You can download a free 30-day trial of the Windows version of Type to Learn 4 Agents of Information from the Sunburst Web site.

**Roxio Creator 2009** (Roxio: [www.roxio.com](http://www.roxio.com)) This is a suite of digital media applications, for CD, DVD and Blu-Ray disc burning, as well as utilities to

help create projects that combine photos, video and music. The program lets you capture High Definition (HD) video from your AVCHD camcorder, and burn it in HD onto standard DVDs. You can upload video and photos directly and make PhotShows to share online with others. The Roxio Audiobook Creator lets you convert and enjoy your audiobooks on iTunes, iPod



*My SAT Coach (Ubisoft).*

or male character, children work on recognizing letters and number, counting, classifying, identifying shapes and sounds, as well as developing observation abilities, understanding spoken instructions and more. There are also science, art and music activities (recognizing animals, learning about the environment and healthy eating, recognizing colors, sounds, etc.)



or iPhone, complete with the chapters and bookmarks that would be lost with a manual transfer. For Macintosh users, **Toast 9 Titanium** allows you to save and catalog your data and discs: archive music, photos, videos, etc and catalog the contents of your discs and access all your files with integrated file browsing of home and network. You can compress and copy your discs, create backup copies of an audio CD with a single click, restore and recover files from scratched or damaged disks while copying. You can also create audio CDs and DVDs. New features in this version include the ability to capture streaming audio from any source and then enjoy it on your iPod, and burn and export your favorite TV show to your iPhone or PSP.

**Technology for Communication and Cognitive Treatment: The Clinician's Guide** (Joan L. Green, M.A., CCC-SLP) This excellent book was reviewed in the August/September issue of Closing The Gap and the reference was accidentally omitted. This book is published by: Innovative Speech Therapy, 1-800-IST-2550, [www.innovativespeech.com](http://www.innovativespeech.com). Written as a guide to enhancing treatment outcomes for those with speech, language, learning and cognitive disabilities, using technology, this book includes individual chapters on treatment and technology to improve verbal expression, auditory comprehension, reading comprehension, written expression, cognition and memory, as well as chapters on multimedia programs and programs useful in generating printed treatment materials. A great resource for professionals interested in integrating computers into the curriculum, and in addressing treatment goals with technology. See August/September 2008 issue for full review.

Watch for a new program from Judy-Lynn ([www.judylynn.com](http://www.judylynn.com)) – **Virtual Motor Skills**, coming in Spring 2009. Look for the review in the next DISKoveries

Watch also for an upcoming review of the new Kindle2 from Amazon.com. A review of the original Kindle (a portable book reader that wirelessly downloads books, magazines and newspapers to a high resolution electronic display) was scheduled for this issue but Amazon has just announced the new version which not only displays the book in various sized fonts, but has text-to-speech technology so books can all be read aloud.

## MULTIMEDIA AND GRAPHICS

Adobe Products have always been the industry standard in multimedia and visual presentations. Their products can be used to integrate technology (Web, video, print, design, etc.) into curriculum at all levels of education. Students can create projects using digital imaging products, teachers can integrate digital photography and video into classroom activities, and administrators can create and publish online learning content and collaborate through online meetings. All this and more can be accomplished with Adobe products.

The new **Creative Suite 4 Master Collection** combines full new versions of the following classic Adobe programs:

**Adobe InDesign CS4** is used to design professional layouts for print and digital publishing and create print content, interactive PDFs, and publications for viewing with Adobe Flash Player—all with beautiful typography and unique page design. **Adobe Photoshop CS4 Extended** is used to edit, manipulate, organize, show and analyze digital images, including 3D. **Adobe Illustrator CS4** is used to create and edit vector graphics. **Adobe Acrobat 9 Pro** is used to organize, merge and combine content with PDF. It lets you organize and collect information, collaborate and share documents and portfolios, collect and manage feedback, and create and track your own more secure forms with Adobe PDF and Adobe Acrobat software. **Adobe Dreamweaver CS4** is used to create Web sites and applications. **Adobe Flash CS4 Professional** is

used to create animations and interactive content. **Adobe Fireworks CS4** is used to create and optimize Web graphics, prototype Web sites and applications. **Adobe Contribute CS4** is used to enable non-programmers to edit and update Web site content. **Adobe After Effects CS4** is used to create motion graphics and visual effects for video. **Adobe Premiere Pro CS4** is used to capture and edit digital videos. **Adobe Soundbooth CS4** is used to create and edit digital audio. **Adobe OnLocation CS4** is used to shoot video with direct to disk recording and monitoring. **Adobe Encore CS4** is used to produce video for DVD, Blu-Ray and Web. **Adobe Bridge CS4** is used to visually organize and browse creative assets. **Adobe Version Cue CS4** is used to centrally manage shared project files. **Adobe Device Central CS4** is used to preview and test mobile device content.

The Adobe Education Store — North America allows qualified education end users from the United States and Canada to purchase education versions of Adobe products at a reduced price. Education end users are full- or part-time students, faculty, staff, and employees of government-certified educational institutions. Above programs are available in the Master Collection or individually.

## INTERACTIVE ENTERTAINMENT SYSTEMS FOR LEARNING

**Nintendo DS** is a handheld system where players use a stylus to “tap” and “slide” and actually write (circle items, etc.)



*Didi & Ditto Preschool (Kutoka).*

to control characters and actions. There is also a built-in microphone, and some programs can recognize voice and simple words. The following are some new DS programs, excellent ways for children and adults to interact and provide opportunities for cooperative play and social and recreational activities.

**Margot's Word Brain** (Zoo Games: [www.zoogamesinc.com](http://www.zoogamesinc.com)) There are six word games in this new DS program, great way to have fun while working on vocabulary, reading, spelling and literacy skills. In Word Link, players find as many three-, four-, five-, and six-letter words as possible from connected letters in a grid of mixed up letters. In Word Mine, you see six jumbled up letters and make as many words as you can from these letters. In Hyper Text, you will practice your text messaging. You use a phone pad, similar to a mobile phone pad and you have to spell words as fast as you can. (For example, to type a "c", you have to tap the number "2" three times.) Word Run is a scrabble-like game - on a 6x6 game board, a six letter word appears. You have to then enter your own words until there is no more room. There is a Word Search game and one other game that lets you create words from wheels of letters that can be rotated. (Also available as a Wii program).

**WordMaster** is another word game. Players have to discover the hidden word by guessing letters and then using clues (right letter, wrong position in word, etc.) to see if they can figure out the word. There's also an anagram mode - you get six mixed letters and get three tries to discover the hidden word. **Puzzler Collection** is another collection of word and thinking games, including Crosswords, Sudoku, Word Search, and Fitword (fit all of the words in the list into the grid.) There's also an anagram game where you place the mixed up letters in the correct order to solve the puzzle and reveal the

mystery word. You can play individual puzzles as you choose, compete against a friend, play against the clock, customize according to how much time you have, or play a tournament to become a Puzzle Master. (All from Zoo Games)

**My SAT Coach for DS** (Ubisoft: [www.ubisoft.com](http://www.ubisoft.com)) Now you can practice for the SAT on your DS! Based on The Princeton Review's test preparation program, this excellent new DS program has two SAT tests, more than 2,000 practice ques-

help increase level of judgment, confidence and time management. Players can also learn about helpful methods and mental approaches to reduce stress. This is a great way to practice vocabulary, math and other SAT topics.

**Mystery Case Files MillionHeir for DS** (Nintendo: [www.nintendo.com](http://www.nintendo.com)) If you like I Spy type games, you will love this new program from Nintendo. Players progress through an interactive detective story, investigating a cast of suspects by

finding cleverly hidden items in many different scenes. The challenge is to find who kidnapped an eccentric millionaire. There are 12 potential heirs to investigate, 30 detailed scenes to peruse, and over 1,000 hidden objects to find. In multi-player modes, players can search for clues together or compete against each other in real time. The puzzles use both the touch screen and the built-in microphone and other items, like an x-ray scanner, flash light, a "super straw" that you can blow flames out with (using the microphone is optional), and a pair of goggles for use underwater. You pet a cat, dot (add a pupil to) an Egyptian eye, or draw a line between a chicken and an egg. In addition, some of the objects you find may require you to solve riddles. For example, you may be asked to find a slice of bread, but can only find a whole loaf. By pressing and holding the L or R button, you can use your stylus to slice the bread. Some of the items that you'll be asked to find will feature quite prominently in the locale that you're searching for them in, but most are cleverly hidden, camou-

flagged, or just small enough to be tough to spot. Several different mini-games that need to be completed between hidden object levels round out the story mode. The most simple of these are spot the difference, sliding picture, and jigsaw puzzles, while others include a relatively fast-paced color-matching game that



*Mystery Case Files MillionHeir (Nintendo).*

tions, along with timed drills and mini-games. Players can practice key skills and subjects in all the different subsections of the SAT test, as well as taking a sample tests. They can track and save their overall progress in all areas, such as geometry, algebra, critical reading, writing and vocabulary. The mini-games will

looks like a DNA sequencer, as well as logic problems that are presented as doodles in a character's notebook. Great for ages seven and up, this DS program is a lot of fun and also good for problem solving, language, reasoning and thinking skills.

**Deal or No Deal** (Zoo Games: [www.zoogamesinc.com](http://www.zoogamesinc.com)) This fun and popular game, from TV, is now on the DS. You can play the game as a single player or in two-player mode. There are two other games too. In Vault, you need to find the three cases in the correct order that unlock the vault door. In Low-High, you pick a case, see the amount, then pick another case and guess if you think the amount will be lower or higher. Fun for all ages!

**Guitar Hero On Tour: Decades** (Red Octane/Activision: [www.guitarhero.com](http://www.guitarhero.com)) This is the second Guitar Hero program for the Nintendo DS. The DS is held like a book, with the strumming area and interface items on the touch screen and the note highways up top. The Guitar Grip peripheral slides into the Game Boy Advance port of the DS and has four color-coded buttons. Players wrap the left hand (or right hand for left-handed players) around the back so that their fingertips press the buttons. To strum, you use the included pick-shaped stylus to swipe anywhere on the touch screen. As with other Guitar Hero games, you play notes by strumming while holding down the correct button to match the scrolling colors on-screen. On Tour: Decades provides original versions of each of its songs, and the tracklist spans five decades of music from the '70s up until today, with several songs taken from the recently released console version of Guitar Hero: World Tour. The new Share the Music

feature lets you stream over 50 songs between Guitar Hero On Tour: Decades and Guitar Hero: On Tour, using local wireless play. You can play in single player, multiplayer or battle it out in Guitar Duels. Other features include the ability to customize outfits throughout the decades of rock, blow into the microphone to extinguish a pyrotechnics fire, use the stylus to autograph a fan's shirt, and play with friends in co-op mode.

**Age of Empires: Mythologies DS** (THQ.com, [www.thq.com](http://www.thq.com)) This DS program, inspired by the classic PC program, is a tactical strategy game. It challenges players to shape the identity of three cultures in a fantasy filled with Egyptian, Greek and Norse heroes, monsters and powerful gods. They will raise armies, wage wars, and explore frontiers. By choosing specific gods to worship and satisfy, they can gain powers like lightning, earthquakes and plagues. This is a good program for older students and young adults who are fans of strategy games and reinforces reasoning and thinking skills.

**Zoo Vet Endangered Animals for DS** (Legacy Interactive: [www.legacygames.com](http://www.legacygames.com)) This new simulation game is set in an urban zoo. Players assume the role of a veterinarian caring for a diverse group of animals, like gorillas, elephants, penguins, polar bears, komodo dragons and more. The game takes full advantage of the DS capabilities and the DS stylus by allowing players to give check-ups, treat major and minor illnesses, and even perform surgeries, with 15 different medical tools. There are also six mini-games that let the players interact with the animals in their natural habitats. For example, in one game you can use the

# Darci USB!



Portable  
computer access!



Your computer doesn't have USB Ports? Darci Too, our universal input device can meet your needs.

Visit our web site for more information  
[www.westest.com](http://www.westest.com)

**WesTest Engineering Corporation**  
**(The Darci People)**

810 W. Shepard Lane, Farmington, Utah 84025  
Tel: 801-451-9191 Fax: 801-451-9393 E-mail: [mary@westest.com](mailto:mary@westest.com)



**Compass**  
Access Assessment Software

Take the guesswork out of computer access assessments with Compass software. Choose from eight skill tests for assessing pointing, text entry, and switch use.

Let Compass help you:

- Select appropriate input devices
- Identify areas for improvement
- Track changes over time
- Document outcomes and success.

*"I can't think of a single student I would not use it with!" - Compass user.*

Only \$179. Visit KPR at [www.kpronline.com](http://www.kpronline.com), or call Infogrip at 800-397-0921 for a free trial.

Developed by:



Distributed by:



microphone to blow on the animal's fur to check and remove fleas. In another, you can use the stylus to brush the animal's teeth or to fling fish into a penguin's mouth. There are also jigsaw puzzles, trivia and memory games. A portion of the game's proceeds will be donated to the African Wildlife Foundation. Excellent program for children who love animals and those who aspire to be vets.

**Konami Track and Field for DS** (Konami Digital Entertainment: [www.konami.com](http://www.konami.com)) This new game takes full advantage of the touch screen and stylus. Players play single events or the sporting career mode. There are more than 20 athletic challenges, including the 100 meter sprint, high jump, archery, pole vaulting and javelin. You can customize your athlete with costumes and cool items. Use the microphone to give your character a boost by shouting words of encouragement. The louder you are, the bigger the boost. Rated E for everyone, this game is recommended for ages 10+.

**TouchMaster2 for DS** (Midway: [www.midway.com](http://www.midway.com)) The new version of this game includes a collection of 20 new games in five categories: Cards, Action, Strategy, Picture and Puzzle. Some of the games are Poker Slide, View Finder, Spellwinder, Scavenger, Bowling, Picture Slide, Speed Solitaire, Billiards and many others. Good for all ages and skill levels, this program is good to play with the stylus, alone or against an opponent. With the Touchmaster 2 Download Play mode you can actually "beam" your favorite Touchmaster 2 game to friends for instant battles on your Nintendo DS. With 20 mini-games in all, you won't run out of games to play.

**Pictolmage for Nintendo DS** (Sega: [www.sega.com](http://www.sega.com)) If you like the game Pictionary, you will enjoy this program. Players draw pictures or write words with the stylus. As a one player game, you look at hand-drawn pictures from people of all ages and guess what is shown (writing answering or using an on-screen keyboard). In two player mode, one player draws and the other guesses what it shows, while Team Play pairs players up for competition. The tutorial mode teaches players how to draw a variety of different images from four main categories (animals, objects, food, and other).

**Cooking Games: Hell's Kitchen The Game** – Just like the contestants on the TV show, players must master all aspects

of cooking: preparation, cooking and service as Chef Ramsay watches – yelling, praising or shutting down the kitchen. As players progress, they gain access to new recipes. In the Arcade Mode, players can concentrate on food preparation and cooking for increasingly more demanding customers. Good fun. **Gourmet Chef:** In this DS program, players command the kitchen of a fine French restaurant. They use the stylus to chop, mix and cook as they prepare more than 70 authentic gourmet recipes with 20 challenging customers, including a sneaky food critic who comes to the restaurant in various disguises. You can even find the recipes in a special section and actually whip them up in your real-life kitchen. Both from Ubisoft: [www.ubisoft.com](http://www.ubisoft.com).

**Phineas and Ferb DS** (Disney Interactive: [www.PhineasandFerbGame.com](http://www.PhineasandFerbGame.com), [Disney.com/videogames](http://Disney.com/videogames)) Fans of the television show on Disney Channel will be able to play as either Phineas, Ferb, or "Agent P" and build a roller coaster, create a snow ride from a snow cone machine (in the summer), and drive a monster truck through a muddy obstacle course. Along the way, they will use cool gadgets that give them special powers. There are also mini-games and puzzles to play. Other characters from the show make appearances throughout the adventure.

**Arts and crafts** projects have always been excellent ways to enhance language, turn-taking skills, problem solving and social interaction along with fine motor, visual perceptual skills, and grapho-motor skills. Here are some great new crafts projects:

**Paper Petals Photo Mobile** – With this craft kit, children ages seven and up can create a flower mobile with their favorite photos for their room. Children begin by punching out the paper flowers and layering them. They can also add all different kinds of leaves. The kit contains punch-out cardstock shapes, glitter glue, sequins and more. There is a round photo holder for each flower. No cutting is required. Twenty flowers can attach to the hanging hook. Detailed instructions on creating the flowers and mounting the photos are included. **Drift Cars Street Team:** This is a fun craft kit for boys, ages five and up. The kit contains six assorted Drift Cars, metallic stickers, acrylic paint, and a paint brush. Decorate your cars, then rev them up and watch them go. **My First Dress Up Doll:** This kit contains

a soft 13-inch doll, with a felt dress that can be decorated with peel and stick felt shapes. No sewing or glue is required. Black, auburn or blonde yarn can be tied on for hair and with adult assistance, the hair can be cut and braided to create new hairstyles. There are pink satin slippers, a "Designed by" clothing tag that can be personalized, and a birth certificate. The doll can be hand-washed. **Create Your Own Pop Up Books:** This kit contains two hard cover blank books, each with 12 pages. There are markers, sticker sheets and wiggly eyes. The kit also includes 30 self-adhesive pop-ups that can be added to the pages of the book. Detailed illustrations and instructions are included, along with wonderful suggestions on how to create your pop-ups and integrate them in your story! **Crafty Caps:** This fun kit includes an adjustable fabric baseball style hat and a visor. Children can peel and stick felt shapes, flowers, leaves, butterflies and rhinestones to decorate and then add fabric ribbons. It's easy for young children to do and they will love wearing their own creations. **Surfergirl Beach Beads:** Designed for ages eight and up, this kit contains real sea shells and wood and glass beads that can be used to make an array of jewelry, including bracelets, ankle bracelets and necklaces. Detailed and illustrated instructions are included. **Big Fun Crafts:** This kit contains a wide variety of craft items, including foam craft sticks, yarn, beads, feathers, wiggly eyes and pom-poms. There are self-adhesive foam dots, felt sheets and tissue paper squares – and everything fits into the included storage box. Scissors are included... and no glue is needed. Great open-ended fun for ages four and up. All from Creativity for Kids, [www.creativityforkids.com](http://www.creativityforkids.com).

## ABOUT THE AUTHOR

Joan Tanenhaus, M.A., CCC, Speech-Language Pathologist/Assistive Technology Specialist, is Founder and Executive Director of Technology for Language and Learning, Inc., a non-profit organization dedicated to advancing the use of computers and technology with children and adults with Special Needs. (e-mail: ForTLL@aol.com). ■

# Show, Practice and Challenge Students in Math with IntelliTools Classroom Suite 4

By John Laskarzewski and Lauri Susi

## BACKGROUND

Many teachers have concerns about whether their students with disabilities can adequately make progress in the general education curriculum and demonstrate the required level of annual yearly progress in math. There are a number of factors that can impact mathematics achievement for a student with disabilities. Curriculum that is fragmented and/or spirals may move too quickly and not provide some students with enough practice to develop competency in one skill before the next skill is presented. The presentation of procedures without enough attention to concept development can cause a void of increasing breadth because these critical building blocks are necessary for further achievement. The inability to read grade level texts or the language of math itself can also hamper the performance of students who are English Language Learners, language-delayed or those with a learning disability. Some students' difficulties are more explicit, such as an inability to physically manipulate objects used to develop conceptual understanding or an inability to physically access standard tools used in math activities. Others may have memory or attention deficits that impact the development of automaticity and the completion of multi-step equations.

Numerous researchers have documented the mathematics difficulties of students with disabilities. These same researchers, however, also support the position that students with math disabilities can improve math performance (Mercer, 1992 2004). Effective instructional approaches, such as a concrete-to-representational-to-abstract sequence, explicit instruction, cognitive learning strategies

and strategic feedback, provide the scaffolding needed by students to link the concepts of math to the procedures of computation.

## RECOMMENDED INSTRUCTIONAL PRACTICE

Mathematics is a discipline in which knowledge develops in a cumulative manner. A good deal of conceptual understanding is necessary for students to achieve in mathematics and develop strong procedural and declarative knowledge. An instructional method supported by research that addresses this developmental cycle is one that follows a concrete-to-representational-to-abstract

(CRA) sequence of instruction. In the CRA instructional sequence, each math concept is first modeled with concrete materials. Once modeled, students are provided with many opportunities to practice and demonstrate mastery using

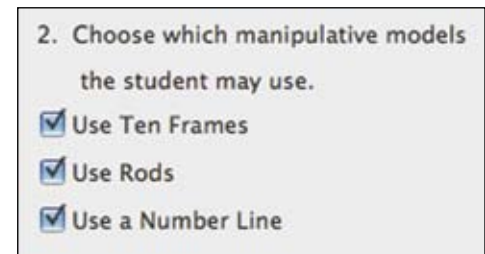


Figure 1.



Figure 2.

the concrete materials. The math concept is then modeled at the representational or semi-concrete level, which involves drawing pictures or symbols to represent the previously used concrete objects. Once again, students are provided with multiple opportunities to practice and demonstrate mastery by drawing solutions. Finally, students are introduced to the procedures for solving the problems at the abstract level. "Research-based studies show that students who use concrete materials develop more precise

and more comprehensive mental representations, often show more motivation and on-task behavior, understand mathematical ideas, and better apply these ideas to life situations." (The Access Center. Retrieved February 12, 2009, from [www.k8accesscenter.org/training\\_resources/CRA\\_Instructional\\_Approach.asp](http://www.k8accesscenter.org/training_resources/CRA_Instructional_Approach.asp))

In addition to the use of a CRA sequence, researchers, such as Douglas Carnine, find an explicit mode of instruction to be highly effective in teaching math to challenged students. The explicit

teaching cycle begins with the presentation of new concepts or skills in which the teacher models thinking, demonstrates the task, maximizes engagement and monitors understanding. Next is guided practice, in which the teacher assists students with completing the task through the strategic use of prompts, questions and feedback. Then comes independent practice in which students complete the task without teacher assistance in an attempt to become more fluent and retain the material (Miller, 2002). Clear, consistent systematic feedback on both success and errors is provided throughout the cycle. One can see that this method blends nicely with the use of a CRA instructional sequence.

Research conducted by Fuchs and Fuchs (2001) resulted in the identification of instructional practices that can be incorporated into any mathematics program. They present four principles of prevention of math difficulties: instruct at a quick pace with varied instructional activities and high levels of engagement, set challenging standards for achievement, incorporate self-verbalization methods, and present physical and visual representations of number concepts or problem-solving situations (Mercer, 2005, p. 429).

Each of the above methods is similar in that they all describe systematic instruction with a focus on effective interactions that result in improved student learning. As you will see in the next sections, the new math environments and features of IntelliTools Classroom Suite 4 (ICS4) combine many of the components of good instruction through systematic presentation of content, recording of student responses, accessible design and customization features.

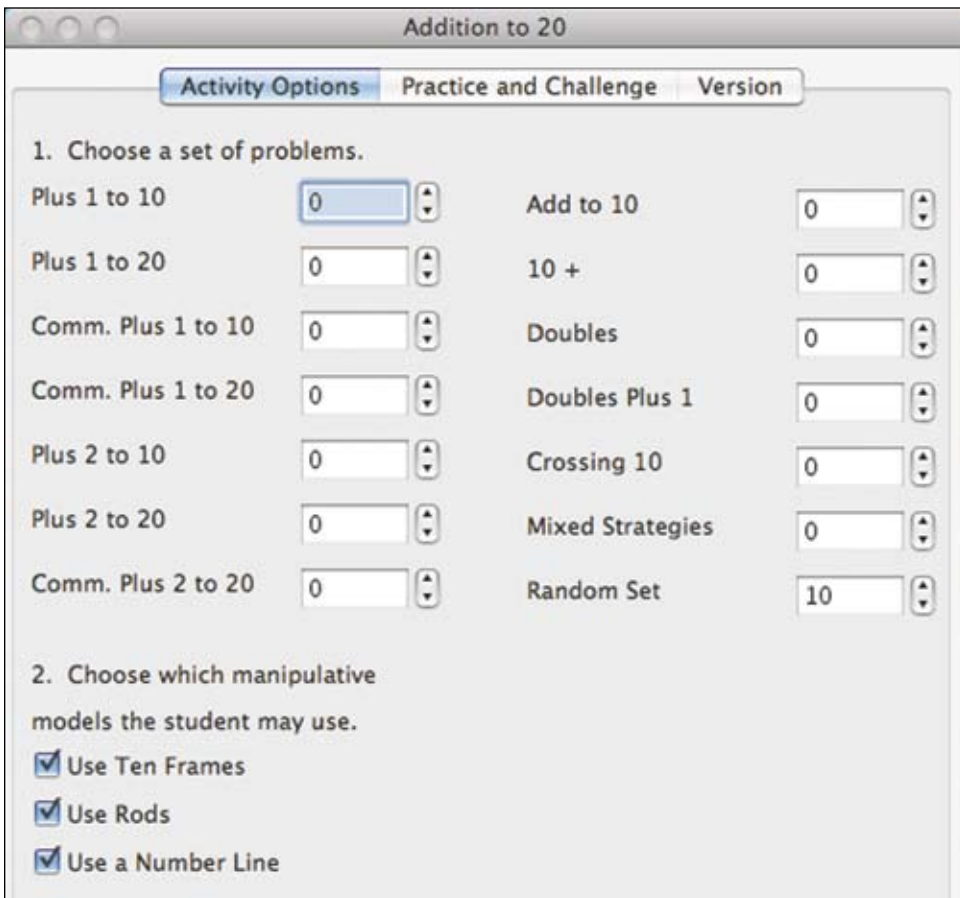


Figure 3.

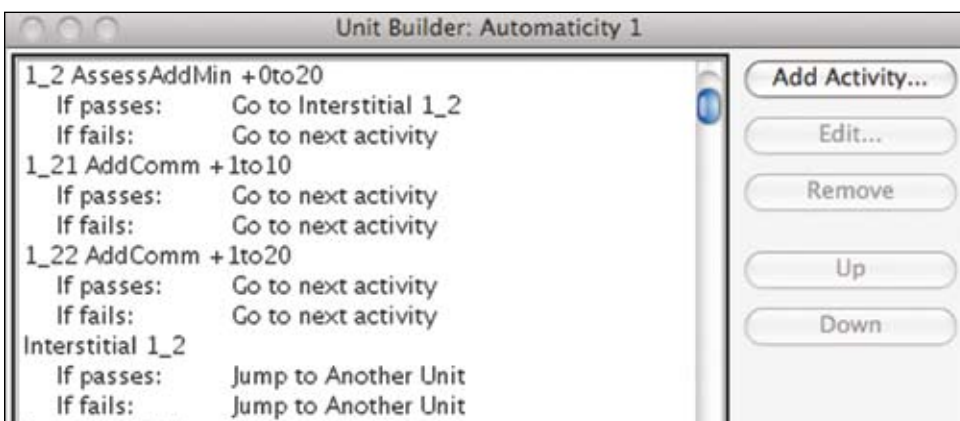


Figure 4.

## INTELLITOOLS CLASSROOM SUITE 4: INSTRUCTIONAL DESIGN

Deborah Ball (2002), who has done extensive research on the ability of teachers to effectively teach math, found that "instructional environments that effectively engage students in the learning process result in high levels of mathematical literacy." The new math templates within ICS4 present visual models in an engaging and challenging format. These models help students to develop conceptual understandings, clarify number relationships and provide efficient methods for acquiring fluency.

The use of models, such as ten-frames, linking cubes, number lines, fraction bars and arrays are all supported by research. Templates found in ICS4 allow teachers to select models that match those used in the curriculum or which permit students to select models that work best for them. (Figure 1, page 13)

Activities generated from the templates incorporate an explicit method of instruction through the use of modeling in a "Show Me" mode, guided practice in the "Practice" mode, and independent practice in the "Challenge" mode, including the development of fluency (Figure 2, page 13). In the "Show Me" section, students are presented with step-by-step animations for completing the activity. During guided practice, prompts and strategic feedback assist students in completing a clear sequence of steps that lead to successfully solving problems, ensuring that students do not engage in practicing errors. As suggested by Konold et al. (2004), the error correction, which includes modeling, is immediate, constructive and encouraging. In the "Challenge" mode, timers can be added to the independent practice to ensure that students remain engaged while developing fluency. Students who are unable to meet fluency goals are directed to do more practice using the models. The format for building fluency goes beyond drill and practice in that it links concepts and number sense through the use of manipulative models to declarative knowledge and then to procedural knowledge.

### CREATING ACTIVITIES

IntelliTools Classroom Suite 4 contains numerous templates grouped into early learning concepts, reading, writing and math folders. Templates in math include fluency assessments, early math concepts, whole number operations, place value, money, fractions and decimals. New teacher dialog boxes found in each template allow for customized activity creation in minutes. After previewing an activity, the teacher can publish and then assign the activity to students. Customized features of the templates in the math folder include the type of problem, the number of problems to practice, the target performance and the access in a setup window (Figure 3, page 14). Teachers can link these activities to content that is presented in class and/or the student's present level of performance.

Another new feature in ICS4 allows the teacher to create "units" which sequence activities so that the student progresses from one activity to another based on targeted levels of performance. As shown in Figure 4 (page 14), the student can begin a unit with an assessment of a specific skill. If the student passes the assessment he/she moves onto the next assessment or skill. If the student does not pass the assessment, he/she is placed into an activity that provides a model with guided practice focused on

the skill assessed. The requirements for passing can be modified to correlate with individual needs and IEP objectives. An additional benefit of using units is that teachers no longer have to assign and monitor each individual activity but can create one launch button for an academic area on which the student is working. As the student completes an activity, he/she automatically progresses to the next step with a developing sense of independence and self esteem.

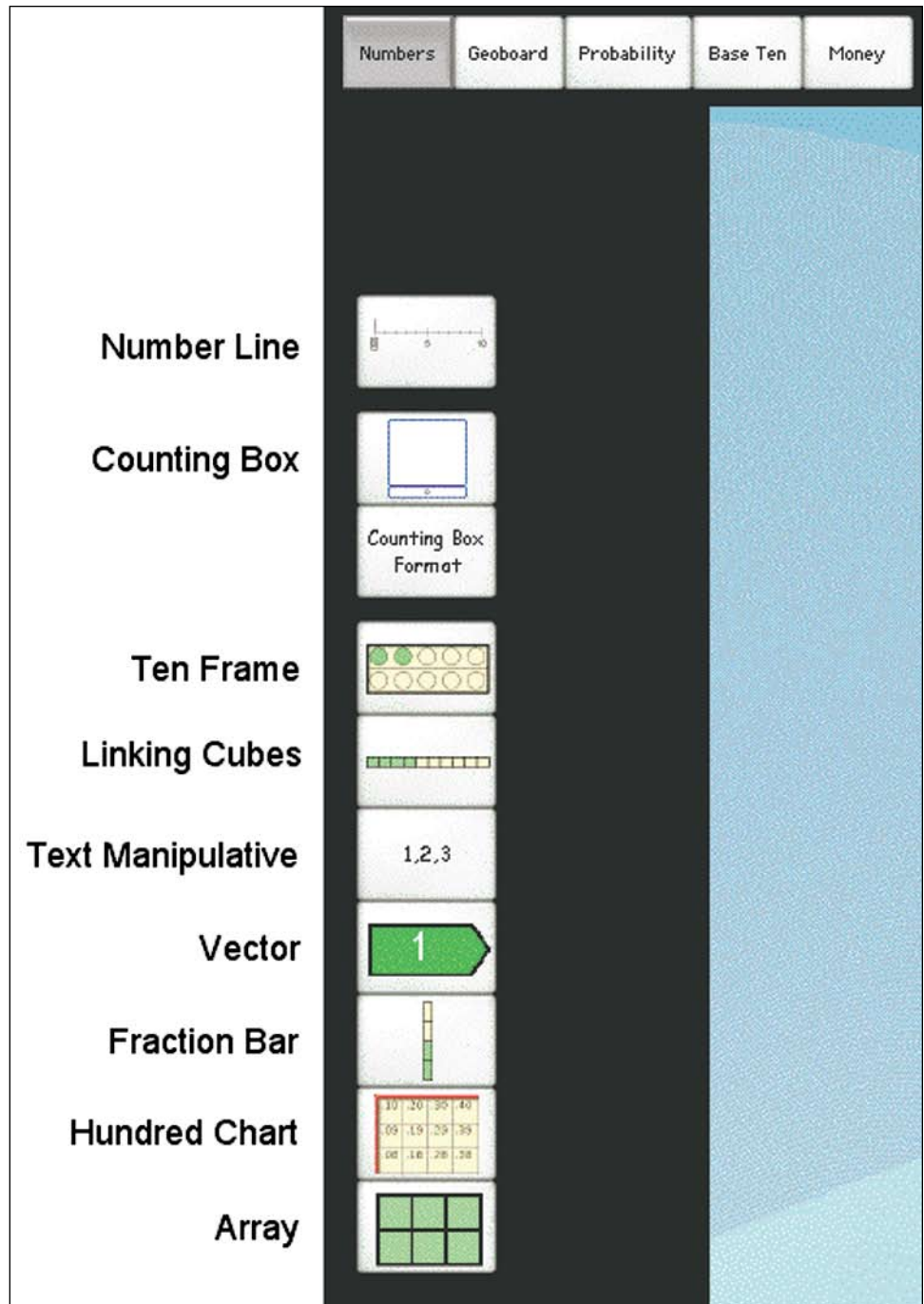


Figure 5.

## CUSTOMIZING

In addition to creating activities using the templates, ICS4 contains creativity tools that allow teachers to design their own learning environments. Created specifically for mathematics instruction, the Math Tools (Figure 5, page 15) environment contains toolbars with all of the manipulatives included, many from the previous version of the program. Teachers can create lessons/activities using the toolbars for either large group or individual instruction. Features such as regions, page buttons and the authoring toolbar, still are available for teachers who wish to create more activities. The addition of a scripting language allows for additional flexibility in activity creation.

## MANAGEMENT

As in the previous version of Classroom Suite, the management component allows teachers to assign activities quickly and to monitor student performance using the reporting features. The teacher can view student progress by creating a report to show each answer or simply to show the percentage of correct responses. Addition-

ally, the teacher now can view the entire class's performance of a unit in one report, allowing comparisons of individuals to be made in relationship to the class. Based on this data, adjustments in the unit can be made for the whole class or for individuals within the class. For example, a student who has difficulty with timed assessments or activities can have a parallel unit developed with that feature eliminated.

## ACCESSIBILITY

IntelliTools Classroom Suite 4 is an excellent example of how technology can be designed and implemented to allow students with a wide range of abilities and disabilities to have access to the mathematics curriculum. All activities can be accessed using alternate keyboards, such as the IntelliTools Keyboard, switches, or a number of augmentative and alternate communication devices. Students who cannot access standard manipulatives can now access them in the two-dimensional environment of ICS4. Students with disabilities can work on the same math activities as their peers within inclusive classroom environments.

## SUMMARY

Research indicates that the math deficiencies of students with learning problems emerge in the early years and continue throughout secondary school (Abedi & Dietel, 2004). Even with revisions to national standards and changes in instructional practice, the performance of students with disabilities continues to lag behind that of their non-disabled peers. The discrepancy between high mathematics standards and the low performance of students with disabilities requires that educators use the most effective and efficient means of delivering instruction. The new IntelliTools Classroom Suite 4 can be an integral component of a meaningful and challenging math experience for all students.

## REFERENCES

- Abedi, J., & Dietel, R. (2004). Challenges in the No Child Left Behind Act for English Language Learners. *Phi Delta Kappan*, 85, 782-785.
- Ball, D. L., Lubienski, S. T., & Mewborn, D. S. (2002). Research on teaching mathematics: The unsolved problem of teachers' mathematical knowledge. In V. Richardson (Ed.), *Handbook of research on teaching* (4th edition). New York: Macmillan.
- Fuchs, D. & Fuchs, L. (2001). Principles for the Prevention and Intervention of Mathematics Difficulties. *Learning Disabilities Research & Practice* 16 (2), 85-95.
- Konold, K. E., Miller, S. P., & Konold, K. B. (2004). Using teacher feedback to enhance student learning. *Teaching Exceptional Children*, 36(6), 64-69.
- Mercer, C. D. & Mercer, A. R. (2004). *Teaching Students with Learning Problems* (7th edition). Pearson Education Ltd.
- Mercer, C. D. & Miller, S. P. (1992). Teaching students with learning problems in math to acquire, understand, and apply basic math facts. *Remedial and Special Education*, 13(3), 19-35.

## CONTACT INFORMATION

John Laskarzewski can be contacted at: [john@spotlightonlearning.com](mailto:john@spotlightonlearning.com).

Lauri Susi can be contacted at: [lauri@spotlightonlearning.com](mailto:lauri@spotlightonlearning.com). ■

# It's time to speak up.

## Introducing the new MacSpeech Dictate 1.2 with Spelling and Phrase Training.

Speech recognition so good, about the only thing it can't do is speak for you.



<http://www.macspeech.com>



# AAC Users Living in a Fast Paced Society

By Rick Hohn

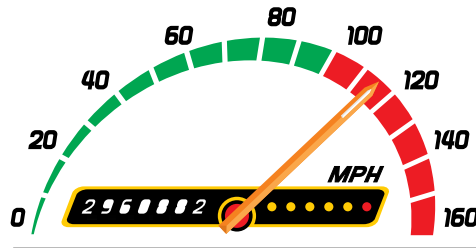
We live in a fast paced society. We have to go there, here, and everywhere. There are even places, such as fast food restaurants, to enable our addiction. There are e-mail and cell phones. We stay up late at night to answer our messages. We grumble to ourselves and wish that we had more time. Do you remember those precious carefree days, when we didn't place all the demands on ourselves? We actually had time.

One of the biggest challenges for augmentative and alternative communication (AAC) users is maintaining the interest of communication partners living in this fast paced society. Many AAC users experience frustration when people walk away without realizing that a message is being composed.

I know this from experience, when using my old DynaVox 2c without a "speak each word at a time" feature. Though I would attempt to look at the person out of the corner of my eye while composing my message, too often I would look up when I had finished, to see that he or she had vanished from my sight! It was incredible! They were nowhere to be seen! I was ready at last to talk, but nobody was there.

## STRATEGIES ON HOW WE CAN GET A WORD IN EDGEWISE

When we, as AAC users, are talking, we want to command the floor. We want to be certain that people who can speak orally do not talk over us. We essentially have to politely quiet them so we have adequate time to say what we are thinking. There are two ways to accomplish this.



One way to achieve this is to speak aloud each word to everyone in the listening area. Therefore, it is a must to have some sort of feature on the device that will speak each word individually. Composing a message with each word spoken lets people know that we, as AAC users, are talking to them. They won't ignore us. Instead, we keep them engaged.



The second way to accomplish this is often preferred by some people. There are users who prefer that feature that speaks each word individually be off. They should make a button that says, for example, "Please be patient, while I compose a message on my speaking device." If AAC users decide to keep this feature off and don't announce

that they have something to say, they are not taking command of the speaking floor. They risk being overcome by others who will take control of the conversation, leaving them in the dark.

Auditory feedback gives people some idea that an AAC user is going to communicate. We are able to capture their attention without running them over in our chairs. Instant communication is necessary because people need to be comfortable around us. Letting them hear what we say or telling them what to do is great for gaining confidence and control in a speaking situation. It can also serve to relax the listener. It especially helps people who are new to the situation to be engaged.

## CUEING LISTENERS TO THE COMMUNICATION STYLE WITH STORED STATEMENTS

There are many types of stored statements that cue communication partners so that they are aware of how AAC users prefer to communicate. This exists as an alternative to the traditional beliefs maintained mainly by speech-language pathologists that the only way to communicate is to listen until a message has been generated. To do differently is often considered rude and disrespectful.

While speaking each word is preferred by some AAC users, it is not for all. Using the method of speaking each word at a time also depends on the social setting. For instance, while I like this feature to be on most of the time, there are occasions when I turn it off, such as interactive Bible studies at my church. While someone else is talking, I silently compose my message to be spoken at an appropriate time. Otherwise, I would be rude.

## DIFFERENT STORED STATEMENTS

Stored statements are a helpful way for the communicator to convey how he or she communicates. For example, AAC users can tell listeners, "When my message is complete, my device will repeat it to you." Another general stored statement that I use is, "I am talking with a speech computer, but I can respond to you with a little patience." The key word is patience. When I say this, most people have a better understanding of how I communicate and are usually patient.

When answering the phone, another general statement that I use is, "This is Rick Hohn speaking through a computer because of my speech disability. May I help you?" Notice that the word "computer" or "device" is used. Certainly, the average person has not heard of the term, alternative and augmentative communication, or AAC.

## PREFERENCE TO SPEAK EACH WORD ALOUD OR SILENTLY

There are a couple of statements that can be used to tell communication partners if a preference is to speak each word aloud or silently. If the device user is comfortable with it, the first method, in speaking each word aloud, certainly frees up the communication partner. The user can cue listeners to guess what he or she is trying to say by telling them, "Please feel free to guess if you think you know what I am trying to say so we will have more time to talk." Another statement that frees up a communication partner is, "Please feel free to do what you need to do, and I will get back to you with my message." These comments can be freeing to both parties.

First, these invitations should be given by the AAC user if he or she knows that the communication partner will not jump ahead of what is being said and to the wrong conclusions. Trusted communication partners will appreciate this freedom as their time is valuable living in this fast paced society. It is one way that people with disabilities can give back to others. Again, this trust has to be earned.

AAC users can also benefit from these statements. I would much rather have someone that I trust guess what I am trying to say in a matter of a few seconds, than composing my message for five minutes. We can quickly move on to the next topic in our conversation that might not otherwise take place because of time limitations. Such communication partners are few and far between, but if an AAC user finds one or two that he or she can trust, I believe that this way is worth considering. Time is precious to enjoy life.

While there are certainly advantages in telling a communication partner to feel free to guess for time's sake, there are also huge disadvantages and risks of saying such a statement. The main ingredient is for the AAC user to know his or her communication partner's personality traits. I have close friends that make me feel comfortable and safe, knowing that they won't jump ahead of what I am saying. I have other close friends that I know will jump with the ball and come to the wrong conclusion, which creates a big misunderstanding. It is the latter that I don't trust to give this freedom.

Therefore, if preferred, a "speak each word at a time" feature can be turned off with the following explanation: "I am sorry, but I prefer my thoughts not being guessed, as premature conclusions might be formed innocently. Would you please wait until I compose my message?" Although this is a slower method of communication, there isn't the risk of people running ahead of me and jumping to the wrong conclusions by their misunderstanding me. They will not speak nine sentences ahead of me, jumping completely to the wrong conclusion, leaving me wondering how they have gotten on Jupiter when I am still on planet Earth.

Users can also encourage and discourage the reading of messages from the device screen. It is up to the user to decide to give communication partners the freedom to read the screen or politely discourage it, as in the previous example. However, if an AAC communicator trusts that the communication partner won't jump to the wrong conclusions, the following statement can be used: "Please feel free to look over my shoulder to read my message."

Much like giving the freedom to guess, AAC users can save time by allowing a message to be read. For instance, I have a helper that comes twice a week to assist me with paperwork, etc. I trust this person to stay with me and not jump to the wrong conclusions. Instead, she reads my sentences as I form them. What is neat about this is if I press an incorrect word, she is usually able to guess the correct word. This allows me to go ahead without deleting the word and type the next word in my sentence. This saves me precious time, allowing me to move on to the next item on my agenda before she has to leave.

For the listener who reads a message from the screen prior to being invited, the following statement is helpful: "I am sorry, but I prefer you to not look over my shoulder when I am speaking to you. It makes me really nervous."

From working at the DynaVox booth for so many years, I have gotten used to people, such as university students who

haven't been taught about AAC etiquette, looking over my shoulder when I compose a message. However, there was a time when I was first learning to use my DynaVox Original that I got tense at being watched.

As with anybody else, AAC users sometimes wish to have a private conversation, such as telling a secret, without the whole world knowing. In such cases, this statement can be used: "I want to tell you something in private. Please read my screen while I tell you." AAC users have a right to speak in private, from telling a joke that they don't care to share with others, to saying that they need to go to the bathroom, etc.

## ICE BREAKERS

Unfortunately, there are people who automatically assume that I am totally deaf, so they start yelling at me at the top of their lungs. Before I get too irritated, I press a button that says, "Please! Don't shout! My brain isn't paralyzed. I can hear and can clearly understand you." Usually people come to their senses, laughing at what was said. They start to realize that they can talk to me normally. There are also people who don't acknowledge the AAC user, but rather only speak to the person with the AAC user. This is annoying, but I have the following statement on a button: "You can speak personally to me instead of to the person who is with me. Though I cannot speak like you, I fully comprehend everything you say and can answer back. You see, my brain still works. Ha, ha ha!" Humor, as illustrated in these statements, goes a long way. Ice breakers relax people who haven't been around AAC users.

As you can see, it is possible for AAC users to keep up in today's fast paced society by giving communication partners auditory feedback and cueing listeners on how to respond. For many users, having pre-programmed statements is a powerful way to implement an AAC device. Through these strategies, a speedy conversation is able to occur.

## AUTHOR CONTACT INFORMATION

Rick Hohn is an AAC Specialist for DynaVox and Mayor-Johnson. He can be contacted at: Phone: 760-755-7056 or e-mail: Rick.Hohn@dynavoxtech.com

Web site: [www.dynavoxtech.com](http://www.dynavoxtech.com).  
Personal Web site: [www.spiritwheelsministry.com](http://www.spiritwheelsministry.com). ■

# A Continuum of AT Solutions for Confusion and Memory Loss After Traumatic Brain Injury

By Anne Johnson, Joan Cunningham and Patti Murphy

Survivors of traumatic brain injury (TBI), a common source of hidden, yet potentially significant cognitive disabilities, may often go unrecognized as candidates for assistive technology (AT) that can help them through the day, in part because their impairment is not readily visible. A notable factor contributing to a new level of awareness of the benefits of AT for this population is the rising number of troops returning from the wars in Afghanistan and Iraq with service-related head injuries. Ten to 30 percent of soldiers have sustained injuries or are expected to, according to a report by correspondent Bob Woodruff that aired on ABC News recently. Higher incidence of effects of childhood TBI resurfacing later in life is another issue at play. TBI affects more men than woman, and is more prevalent among prison inmates than the general population.

Current statistics bear some perhaps unexpected news. TBI is six times more likely to happen to a United States citizen than multiple sclerosis, spinal cord injury, HIV/AIDS or breast cancer combined.<sup>1</sup> It is the leading cause of death among individuals one to 44 years old and claims the lives of approximately 52,000 people annually, says the New York City-based Brain Trauma Foundation (BTF) Web site. Research published in 2006 cites an array of causes for the injuries resulting in death as follows: motor vehicle accidents, 20 percent; person struck by or against an object, 19 percent; assault, 11 percent, pedal cycle accidents, three percent and suicide, one

percent. Unknown causes accounted for nine percent of deaths while unspecified other causes accounted for seven percent.<sup>2</sup> The Center for Disease Control in Atlanta, Georgia estimates that at least 5.3 million American survivors of TBI consequently require assistance with activities of daily living.

This article presents a continuum of AT solutions addressing cognitive deficits experienced by individuals mildly, moderately or severely affected by TBI. The deficits often compromise their executive

functioning, a term that The National Center for Learning Disabilities defines as the set of cognitive processes that help us connect past experience with present action. Executive functioning shapes our abilities, behaviors, performance of tasks, emotional responses to situations and reaction to change. It affects our capacity to plan projects, estimate how much time a project will take, convey details in an organized and sequential manner, memorize or recall information, initiate tasks or activities, and retain information pertinent to tasks at hand – a telephone number while dialing it, for example. The effects of TBI tend to diminish executive functioning to the point where confusion and memory loss become a permanent part of life. An analogy used in BTF literature compares it to losing a cell phone signal in the middle of a conversation. For a person with TBI, dropped signals in the brain may be manifested in intercepted plans for the day, forgotten steps to simple tasks or the forced abandonment of a project because you're unable to think it through to completion.

The easy-to-use, research-based technologies highlighted here are designed to assist individuals in overcoming such obstacles while positively influencing interpersonal relationships with family, caregivers and others. Mostly handheld items, they include:

The DynaVox Co-Pilot by AbleLink Technologies, a comprehensive GPS-enabled personal digital assistant (PDA) featuring a simplified desktop. It provides audio and visual

prompting needed to make decisions, follow directions, complete tasks and manage one's schedule. Four included software programs – Discovery Desktop, Schedule Assistant, Pocket Coach and Pocket Compass offer tools that promote one's ability to handle such functions independently.

AbleLink's Pocket Endeavor runs on a GPS-enabled SmartPhone PDA, and includes the Endeavor Dashboard, a clean, simple interface providing cohesive integration for the other functions.

*The easy-to-use, research-based technologies highlighted here are designed to assist individuals in overcoming such obstacles while positively influencing interpersonal relationships with family, caregivers and others.*

Researched and developed based on interactions over two years with soldiers with TBI, in addition to a Defense Advanced Research Programs Agency (DARPA) grant through the U.S. Department of Defense, Pocket Endeavor brings together a set of cognitively accessible tools to support executive functioning, including an enhanced picture/audio scheduling system, voice recorder, verbal to-do lists, voice-based note-taking, and a visual cell phone.

The DynaVox V, a portable augmentative and alternative communication (AAC) device featuring the Visual Scene Display for Adults (VSD-Adult) interface, developed under the leadership of Dr. David Beukelman, Ph.D., the Barkley Professor at the University of Nebraska – Lincoln in a collaborative effort of the University of Nebraska Medical Center, Madonna Rehabilitation Hospital in Lincoln and the Augmentative and

Alternative Communication-Rehabilitation Engineering Research Center (AAC-RERC), and available exclusively on the DynaVox V and Vmax devices. Bridging gaps between representational and symbolic language that people with TBI may encounter when using speech communication devices with more traditional displays, VSD-Adult eases cognitive demands on the language system with contextually rich images (digital photographs imported to the device) depicting people, places, objects, activities, events, situations and experiences of significance to the end user in relation to each other. Communication topics may range from family events to vacations and daily personal care to hobbies. The predictable arrangement of vocabulary and command buttons further simplifies the organization of thought processes during communication.

The DynaVox Vmax, a larger version of the V is used by individuals requiring larger targets and/or those using wheelchairs.

The DynaVox EyeMax is the newest and most advanced access method for individuals using the Vmax who can move their eyes more reliably than any other body part. With the EyeMax, they can access their Vmax device simply by blinking or dwelling on a desired portion of the screen.

Medical and technological advances coming to fruition in the new millennium have made it possible for such items to be more commonly introduced in the course of treatment for patients with TBI than in the past. Life expectancies for this population are generally higher. Rehabilitation of U.S. veterans sustaining injuries from combat in foreign wars tends to begin closer to onset. Progress in global transportation systems means that troops are admitted to stateside hospitals within a matter of days, a process that could take up to several weeks during the Vietnam era. Gradual changes of this nature, coupled with heightened awareness of the unique needs of AT consumers, are promising for people with TBI, their families and care teams.

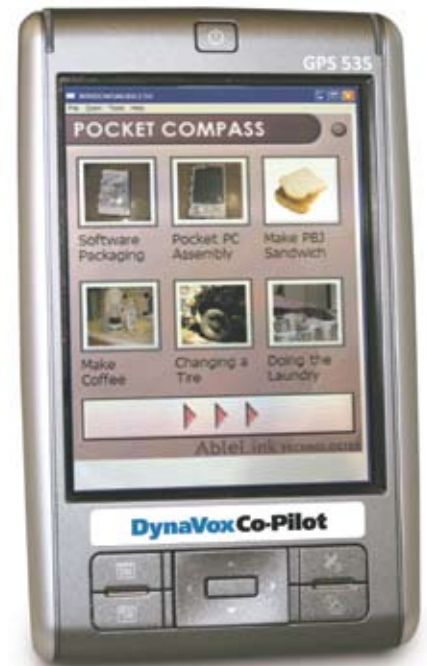
Yet, a tricky question lingers when it comes to introducing those confronted with intellectual challenges to new technologies. Primary caregivers, practitioners or more experienced AT consumers may ask, "If I don't get it, how is someone with cognitive deficits going to get it?" A key hint to the answer may lie in this scenario: If someone has lost his or her right leg in an accident, the intervention of choice would not be to instruct the patient to keep practicing walking and running without any prosthetic equipment, including artificial limbs and mobility aids. But the effects of TBI often are not as obvious as a physical disability. An article by Katherine McIntire Peters published last year

in Government Executive said "88 percent of patients who sustained traumatic brain injuries did not have penetrating head wounds, meaning their injuries were not always apparent to others or even to themselves" in reference to troops who have served in Iraq and Afghanistan.

Clinically recommended interventions for those diagnosed with TBI often involve practicing skills that the patient simply does not have the capacity to perform without the aid of a prosthetic device. Imagine adapting to life with TBI after returning from a tour of military service. Routine activities like having the tires on your car changed and making plans to meet friends at a local bar afterward are a struggle, or impossible, because the mental processes that normally would allow you to do so are shattered. Complicating matters is your full recognition that you no longer can execute the activities as easily as you once did. The DynaVox and AbleLink products, while providing tools needed to resume an ordinary and meaningful life, are free of the system and feature clutter that may prompt dismissal of other electronics as possible solutions. They also address varying personal needs and abilities found along the TBI spectrum.



**Pocket Endeavor**, a GPS-enabled Smart-Phone PDA by AbleLink Technologies, brings together a set of cognitively accessible tools to support executive functioning, including an enhanced picture/audio scheduling system, voice recorder, verbal to-do lists, voice-based note-taking, and a visual cell phone. It includes the Endeavor Dashboard, a clean, simple interface providing cohesive integration for the other functions.



**The DynaVox CoPilot** by AbleLink Technologies is a comprehensive GPS-enabled personal digital assistant (PDA) accessed from a simplified desktop that provides audio and visual prompting needed to make decisions, follow directions, complete tasks and manage one's schedule independently.

Pocket Endeavor, for example, is a good match for individuals experiencing mild to moderate effects of TBI, addressing the major executive functioning issues on a single device. The user receives auditory and/or visual schedule prompts, and can easily insert new events and time-based reminders on the fly. Powerful recurrent event editing features are also included. Reminders for to-do list items are easily handled by the verbal note-taking capability of the device. If an exercise or medication routine changes, the new orders can be recorded as voice notes on the go. Sequential step auditory prompting provides more in-depth task completion support. Pocket Endeavor also provides an accessible cell phone, with a visual list for contacts and picture identification of callers.

Individuals with moderate to severe disabilities requiring audio and visual cues for the successful completion of tasks driven by memory and organization of thoughts may benefit most from the Co-Pilot with software that eases virtually all a person has to accomplish on a given day, starting with Discovery Desktop, where icons replace words for simple navigation of the system. Schedule Assistant pairs icon cues with words to create timed schedules and reminders. Pocket Coach supplies verbal cues for step-by-step directions or instructions for tasks while Pocket Compass offers judgment support and decision points for situational choices – which tire needs to be changed or which printer cartridge is low on ink, for instance. Co-Pilot's audio-visual prompts may be set up easily with caregiver assistance.

The Vmax and EyeMax provide a combination of solutions meeting the needs of those reliant on others for total daily care and an AAC device for self-expression. Extensive preprogrammed vocabulary on the Vmax, including the VSD-Adult and the integrated InterAACT language framework, may be easily tailored to the age, abilities and life experience of the individual. The EyeMax offers alternate access to these communication tools for veterans and others sustaining limb amputations as well as TBI, precluding their use of direct selection, another option as a primary method of access. Ambulatory individuals with verbal communication deficits can benefit from the V, which also features the VSD-Adult and InterAACT.

No matter where a person may be best served along the continuum of AT solutions described here, it is important that care teams focus on strengths that he or she demonstrates during their implementation. Successful remediation of memory loss, confusion and other cognitive impairments

resulting from TBI (or conditions that may share its manifestations – stroke, dementia, depression or autism, for example) is highly unlikely merely by repetition of information or similar strategies excluding the aid of external technologies. Technology that draws on audio, visual and other abilities preserved in the individual puts winning solutions within welcome reach.



**The DynaVox Vmax speech communication device, typically used in a stationary position on a desktop or wheelchair mount, and the DynaVox EyeMax, a new and advanced eyegaze system for accessing the device.**

## AUTHOR INFORMATION

Anne Johnson, M.Ed. is a Product Manager at DynaVox and Mayer-Johnson. She may be contacted at [anne@mayer-johnson.com](mailto:anne@mayer-johnson.com). Joan Cunningham, M.A., is Director of Marketing and Business Development at AbleLink Technologies. She may be contacted at [joan@ablelinktech.com](mailto:joan@ablelinktech.com). Patti Murphy writes for DynaVox and Mayer-Johnson. She may be contacted at [patti.murphy@dynavoxtech.com](mailto:patti.murphy@dynavoxtech.com).

## REFERENCES

<sup>1</sup>TBI Incidence, Brain Injury Association of America. Retrieved February 13, 2009 from <http://www.biausa.org/BIAUSA.ORG/word.files.to.pdf/good.pdf/factsheets/TBIincidence.pdf>

<sup>2</sup>Wogalter, M.S. and Mayhorn, C.B. (2005). Providing cognitive support with technology-based warning systems, *Ergonomics*, Vol. 48, No. 5, April 2005, 522-533

<sup>3</sup>"Hidden Wounds" by Katherine McIntire Peters. Retrieved February 17, 2009 from [www.govexec.com/story\\_page.cfm?filepath=/features/0207-01/0207-01na3.htm](http://www.govexec.com/story_page.cfm?filepath=/features/0207-01/0207-01na3.htm).

[www.govexec.com/story\\_page.cfm?filepath=/features/0207-01/0207-01na3.htm](http://www.govexec.com/story_page.cfm?filepath=/features/0207-01/0207-01na3.htm).

## ADDITIONAL SOURCES

Davies, D.K., Stock, S.E. and Wehmeyer, M.L. (2004). A palmtop computer-based intelligent aid for individuals with intellectual disabilities to increase independent decision-making. *Research & Practice for Persons with Severe Disabilities*. 28 (4), 182-193.1

Riffel, L.A., Wehmeyer, M.L., Turnbull, A.P., Lattimore, J.L., Davies, D.K., Stock, S.E. and Fisher, S. (2005). Promoting independent performance of transition-related tasks using a palmtop PC-based self-directed visual and audio prompting system. *Journal of Special Education Technology* 20 (2) 5-14.

Traumatic Brain Injury Facts, The Brain Trauma Foundation. Retrieved February 12, 2009 from [www.braintrauma.org/site/PageServer?pagename=TBI\\_Facts](http://www.braintrauma.org/site/PageServer?pagename=TBI_Facts).

Brain Injury Facts, The Brain Injury Association of Missouri, Retrieved February 16, 2009 from [www.biamo.org/BrainInjuryFacts.asp](http://www.biamo.org/BrainInjuryFacts.asp).

## PRODUCT INFORMATION

DynaVox Co-Pilot – \$3,199. DynaVox and Mayer-Johnson, 2100 Wharton Street, Suite 400, Pittsburgh, PA 15203; Phone: 1-866-DYNAVOX (396-2869); Web site: [www.dynavoxtech.com](http://www.dynavoxtech.com).

Pocket Endeavor with GPS PDA Phone Upgrade – \$2,499. AbleLink Technologies, 618 N. Nevada Avenue, Colorado Springs, Colorado 80903; Phone: (719) 592-0347; Web site: [www.ablelinktech.com](http://www.ablelinktech.com).

Pocket Endeavor with Pharos 535+ GPS PDA – \$2,299. AbleLink Technologies, 618 N. Nevada Avenue, Colorado Springs, Colorado 80903; Phone: (719) 592-0347; Web site: [www.ablelinktech.com](http://www.ablelinktech.com).

DynaVox V – \$7,645. DynaVox and Mayer-Johnson, 2100 Wharton Street, Suite 400, Pittsburgh, PA 15203; Phone: 1-866-DYNAVOX (396-2869); Web site: [www.dynavoxtech.com](http://www.dynavoxtech.com).

DynaVox VMax – \$8,245. DynaVox and Mayer-Johnson, 2100 Wharton Street, Suite 400, Pittsburgh, PA 15203; Phone: 1-866-DYNAVOX (396-2869) Web site: [www.dynavoxtech.com](http://www.dynavoxtech.com).

Dynavox EyeMax Accessory – \$7,000. DynaVox and Mayer-Johnson, 2100 Wharton Street, Suite 400, Pittsburgh, PA 15203; Phone: 1-866-DYNAVOX (396-2869) Web site: [www.dynavoxtech.com](http://www.dynavoxtech.com). ■

# Inexpensive Assistive Technology for Struggling Readers

By Leon Reisberg

One of the most difficult problems facing middle and secondary school teachers today is that many students come to class without the necessary skills to read and comprehend the written materials placed before them (Snow, 2002). Textbooks and other print-based materials often provide the foundation for many courses in K-12 education and teachers frequently expect students to read and comprehend these materials independently (Davey, 1988; Schug, 1997; Williams, 1998). However, studies have found that upwards of 30 percent of public school students cannot read well enough to effectively accomplish grade-level work (National Center for Education Statistics, 2001). While the lack of skills may be due to various factors (e.g., disability, inadequate instruction, lack of opportunity or motivation), teachers are faced with the challenge of providing content information to all students who struggle with reading.

One strategy for addressing this challenge is through the use of assistive technology. Assistive technology (AT) is defined as, "Any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional capabilities of individuals with disabilities" (The National Center on Accessible Information Technology in Education, 2008). While the definition of assistive technology emphasizes its use with individuals with disabilities, AT can provide support for students who struggle with reading regardless of the cause.

Studies have found positive outcomes associated with the use of assistive technology for students with reading deficits (Balajthy, 2004; Boyle, Rosenberg, Connelly, Washburn, Brinckerhoff, & Banerjee, 2003; Kim, Vaughn, Klinger, Woodruff, Reutebuch, & Kouzekanni, 2006; O'Neil, 2006). Increased student attention, improved comprehension, attitude and motivation are areas where studies have shown increases.

While studies have demonstrated the value of assistive technology in many situations, the implementation of these tools in the classroom has been slow and often concentrated on students with low inci-

dence disabilities (Bausch & Hasselbring, 2004; Derer, Polsgrove & Reith, 1996; Parker, Buckley, Truesdell, Riggio, Collins & Bordman, 1990; Scott, 1997). The National Assistive Technology Research Institute at the University of Kentucky examined the use of assistive technology in 10 U.S. states in 2005 and found that assistive technologies are much more likely to be used by students in low-incidence special education categories (e.g., autism, hearing impairments, visual impairments) than by students with learning disabilities (Bausch & Hasselbring, 2004; Hasselbring & Bausch, 2006). The use of assistive technology tools to assist students who do not qualify for special education, but who still struggle with reading is even less common (Cuban & Kirkpatrick, 2001).

Barriers to the adoption and implementation of assistive technology include lack of appropriate training and support, negative staff attitudes, inadequate assessment and planning, insufficient funding, difficulties obtaining and maintaining the equipment and time constraints (Copley & Ziviani, 2004; Jones, Valdez, Nowakowski & Rasmussen, 1995). Cost or lack of funding is a barrier mentioned in virtually all the research on the implementation of assistive technology, especially in regards to students with mild disabilities.

With the growth in the availability of open source software, freeware and shareware, many types of assistive technology programs, once available only through commercial vendors, are now available inexpensively or free on the Internet. This article examines a variety of free and inexpensive programs that can be used to address the learning needs of students with reading deficits.

## FREE AND INEXPENSIVE ASSISTIVE SOFTWARE

Many different types of assistive technology are available, however, the following categories of assistive technology for students with reading difficulties will be considered in this article: speech synthesizers, including text-to-speech programs, Web-to-speech readers (a variant of text-to-

speech programs), and talking word processors; electronic texts; and recorded books.

While several examples of each category are reviewed, different products have different advantages and disadvantages. In selecting an appropriate product, the educators should match the user's needs and abilities with the functionalities of the software. One or two carefully chosen products should meet the needs of most classrooms.

## SPEECH SYNTHESIZERS

Speech synthesizers "receive information going to the screen in the form of letters, numbers, and punctuation marks, and then 'speak' it aloud in a computerized voice" (Microsoft Accessibility, 2008).

**Text-to-Speech** – One type of assistive technology using speech synthesis is text-to-speech programs. In text-to-speech programs, files are copied into the program and then are spoken by the computer. Generally the user has options to select different voices (male and female), change the speed the text is processed, and increase or decrease the size of the font.

Commercial programs offer many options, including more natural sounding voices. Free programs offer fewer options and perhaps less functionality, but many handle the basics of translating digital text into speech quite well (analyzing the text, pronouncing it correctly, adjusting speed, highlighting text as it is read and choosing optional voices).

Narrator, a free program bundled with Windows, is one such program. Narrator is designed to work with Notepad, WordPad, Control Panel programs, Internet Explorer, the Windows desktop, and some parts of Windows Setup. Narrator has a number of options that allow you to customize the way screen elements are read, but it has limited functionality and may not read words aloud correctly in other programs. To launch Narrator, from the Start menu, point to **All Programs**, then point to **Accessories**, then open **Accessibility** and select Narrator.

VoiceOver is a free product bundled into Mac operating systems. VoiceOver reads aloud the contents of files, including Web pages, and word processing files. It can

provide an audible description of your workspace and includes keyboard commands that allow the user to navigate the Mac OS interface and interact with application and system controls.

A more robust program for Windows operating systems that is available as a free download is ReadPlease ([www.readplease.com](http://www.readplease.com)). ReadPlease allows readers to paste copied text into its program window where the reader can select play to listen to the content. ReadPlease also permits reader/listeners to change the appearance of the text and the vocal output. Visual modifications include changing the font and the font size, the background color, the text color, and the highlight color of the spoken text. The program also provides for changing the background and text to high contrast (e.g., white on black) options. Audio output is also adjustable, allowing the reader/listener to change the speed of the output. ReadPlease Plus is an upgrade (under \$50) that allows more functionality, including fast forward and backward, and the ability to add your own words and pronunciations.

Natural Reader, available from Natural Soft ([www.naturalreaders.com](http://www.naturalreaders.com)) also has robust functionality, including the important abilities to read PDF files and convert selected text into MP3 files. Natural Reader comes with a variety of voice choices and offers three versions: free, personal (under \$50) and professional (under \$100). Upgrades offer the added functionality of more natural voices; free technical support; the ability to read both text- and Web-based text; ability to add in a toolbar to MS Word, Outlook, PowerPoint, Internet Explorer; change voices and speed; and convert large text file (up to 4 million letters) to MP3/WAV files.

Flame Reader ([www.flamereader.com](http://www.flamereader.com)) available from FlameSoft Technologies, has impressive functionality and is offered both as a free download and as an upgrade for less than \$50. Functionality includes the ability to add in toolbars for Internet Explorer and Office; read text directly in Web sites, documents, PDF, e-mails, and e-books without copy and paste; read any text with your mouse cursor moved

over it; make speaking PowerPoint files; and translate between six languages.

Another valuable alternative program is HelpRead, a freeware program made available by the Hawaii Education Literacy Project ([www.pixi.com/~reader1/allbrowser](http://www.pixi.com/~reader1/allbrowser)). HelpRead also provides sources of electronic books on its site, a valuable addition for the instructor searching for electronic texts.

NextUp Technologies also offers several products at less than \$30, including Text Aloud ([www.nextup.com](http://www.nextup.com)) for Windows, Claro

Reader and Ghost Reader for Mac users and AbleReader for both PCs and Macs ([www.ablereader.com](http://www.ablereader.com)).

A product with interesting functionality is PowerTalk, a free reader designed to allow users to add speech to PowerPoint presentations. This product is available as a free download at [www.fullmeasure.co.uk/power-talk](http://www.fullmeasure.co.uk/power-talk). Making electronic books and interactive presentations is made simple and direct with this product.

Book Wizard ([www.aph.org/tech/bwr\\_info.htm](http://www.aph.org/tech/bwr_info.htm)) available for \$39 through the American Printing House for the Blind, is a program designed to read digital talking books. The program provides users with the ability to control and navigate through both structured and unstructured audio files. Depending on how the book was constructed, Book Wizard can open a book in all the views the book offers. For a book that contains only audio, the only view available is the audio view with playback control and navigation. If, on the other hand, a book contains text and no audio, Book Wizard shows the text view and lets the user control the appearance and navigate through the text. If you open a book with both text and audio support, Book Wizard opens both views and prioritizes the preferred view.

**Web-to-Speech Readers** – Web-to-Speech Readers, similar in purpose to Text-to-Speech Readers, have the capability of directly reading aloud content displayed in Web browsers. With these programs, there is no need to copy content into a second window; the program reads aloud the information displayed on a Web page. Many of these programs not only read the text on the screen, but can identify links and read hidden captions for pictures. Used frequently by persons with visual impairments, these programs can assist students with reading deficits to access content and information on the World Wide Web. Many of the programs described in the section on Text-to-Speech software can also function as Web Readers. Other programs are designed to function primarily with a Web browser, either by inserting its toolbar into browsers, like Internet Explorer or Mozilla, or by using its own proprietary browser.

BrowseAloud ([www.browsealoud.com/page.asp?pg\\_id=80094](http://www.browsealoud.com/page.asp?pg_id=80094)) from Texthelp Systems Inc. is a free download. Two versions of the program are available, one for PCs and one for Macs. By launching the program and the browser, the user can either click the play button in the toolbar to read the entire page or highlight specific content, click, and when the drop down menu is displayed, select the Speak Selection command. The

program then displays the text at the top of the screen and speaks the selection aloud.

Thunder, from ScreenReader.net ([www.screenreader.net](http://www.screenreader.net)) is a totally free, integrated browser and screen reader. It boasts a simplified interface that allows the user to view the screen, either in text layout or as a Web page. In the Web page mode, the user places the cursor on any line and the program will read it aloud, highlighting each word. The program also allows the reader to increase the font size and change the screen colors. A useful feature of this program is that it makes subscribing and reading RSS feeds extremely easy.

TextAloud 2 ([www.nextup.com](http://www.nextup.com)) from NextUp (\$29.95) inserts a toolbar into your Internet Explorer browser and will directly highlight and read information on the screen. TextAloud 2 can also function as a text-to-speech program, allowing the user to listen to e-mail and documents.

Another choice for audible Internet browsing is ReadingBar 2 (\$69.95) from ReadPlease Corp. ([www.readplease.com/](http://www.readplease.com/)). ReadingBar 2 will read any Web page, make MP3/WAV files, zoom any page, text-only version Web pages, and translates into English, French, German and Spanish. The program also allows the reader to select several voices, including AT&T True Voices, for more naturally sounding speech.

Mac users can use VoiceOver to access Web sites. Built into the Safari browser, VoiceOver can read pages in the order the Web page designer intended (called the Document Object Model, or "DOM" order) or can scan a page to identify related items and group them together for easier reading (called the "Group" order). In addition to the standard array of search commands, VoiceOver can move directly to items of interest. VoiceOver offers keyboard shortcuts for jumping by heading, heading of the same level, link, visited link, graphic, and other Web page controls.

## ACCESSING ELECTRONIC CONTENT

Once the teacher has decided to assist students with Text-to-Speech and Internet Screen Reader programs, finding appropriate electronic content is the next concern. Many materials are already available as either electronic or talking books. If required classroom materials aren't available as either electronic books or audio books, teachers can use scanning to convert printed material into electronic formats.

**Electronic and talking books** – An impressive and ever growing number of books and other materials are now available free online. Bookshare.org ([www.bookshare](http://www.bookshare),

[org/web/Welcome.html](http://org/web/Welcome.html)) is a service available free to qualified students. The Bookshare.org library provides print disabled persons with access to over 41,000 books and 150 periodicals that are converted to Braille, large print or digital formats for text-to-speech audio. Bookshares.org enables book scans to be shared, thereby making them available to all the collections of thousands of individuals who scan books. Bookshare.org takes advantage of a special exemption in the U.S. copyright law that permits the reproduction of publications into specialized formats for the disabled. Access to the Bookshares.org collection is available through several means. U.S. schools can sign up their students for free individual memberships to download books on their own. Students under the age of 18 will need permission from a parent or guardian. In order to open individual memberships for students, the sponsoring school completes the school registration process, listing qualified students and certifying the students' proof of disability. The student then completes and submits the Individual Membership form. Students can also obtain free individual memberships without the assistance of their schools by submitting the Individual Membership and proof of disability forms on their own, and requesting a student subscription online. School memberships are also available for U.S. schools. Teachers who download books for students with disabilities can access titles by completing the Create a School or Group Account.

Project Gutenberg also provides free access to electronic books ([www.gutenberg.org/wiki/Main\\_Page?fb\\_page\\_id=6428288402&](http://www.gutenberg.org/wiki/Main_Page?fb_page_id=6428288402&)). The project provides access to over 25,000 free books in the Project GutenbergOnline Book Catalog and a total of over 100,000 titles are available at Project Gutenberg Partners, Affiliates and Resources.

Other sources of electronic books, periodicals and materials include:

- Louis Database of Accessible Materials ([www.aph.org/louis/louis.html](http://www.aph.org/louis/louis.html)). The database lists the location information for over 180,000 books and other products.
- Internet Public Library ([www.ipl.org](http://www.ipl.org)). The library connects users with resources for electronic books, magazines and newspapers.
- KidPub ([www.kidpub.com](http://www.kidpub.com)) publishes student books and writings online.
- Alex Catalogue ([www.infomotions.com/alex](http://www.infomotions.com/alex)) contains over 14,000 digital books from the public domain.

In addition to the resources noted above, many electronic publications are available for students including: Time for Kids ([www.timeforkids.com](http://www.timeforkids.com)), Weekly Reader ([www.weeklyreader.com](http://www.weeklyreader.com)), Children's Express ([www.childrens-express.org](http://www.childrens-express.org)), Scholastic ([www.teacher.scholastic.com](http://www.teacher.scholastic.com)), Online NewsHour ([www.pbs.org/newshour](http://www.pbs.org/newshour)), NewsLink ([www.newslink.org](http://www.newslink.org)), and CNN.com ([www.cnn.com](http://www.cnn.com)).

Finally, entering the title of a book followed by AND "electronic text" into the Google search window will search the Internet for electronic copies.

## SUMMARY

Assistive technology can help struggling readers acquire the content knowledge and information often available only through written material or on the Internet. Text-to-speech and Internet Screen Readers can make text material accessible to students who lack the skills to read and comprehend independently. Yet, teachers have been slow to adopt these tools. Cost, awareness and availability are factors that have limited the broader use of assistive technology. However, many of these resources are now available online for free or reasonable costs. Teachers interested in using these free and inexpensive alternatives should examine the products functionality and match them with the needs of students. One or two carefully selected products can help struggling readers to access content normally available only to proficient readers.

## REFERENCES

- Balajthy, E. (2005). Text-to-speech software for helping struggling readers. Reading Online.
- Bausch, M., & Hasselbring, T. (2004). Assistive technology: Are the necessary skills and knowledge being developed at the preservice and inservice level? *Teacher Education and Special Education*, 27(2), 97-104.
- Boyle, E., Rosenberg, M., Connelly, V., Washburn, S., Brinckerhoff, L., Banerjee, M. (2003). Effects of audio texts on the acquisition of secondary-level content by students with mild disabilities. *Learning disability quarterly*, 26, 2003.
- Copley, J., & Ziviani, J. (2004). Barriers to the use of assistive technology for children with multiple disabilities. *Occupational Therapy International*, 11(4), 229 – 243.
- Cuban, L., & Kirkpatrick, H. (2001). High access and low use of technologies in high school classrooms: Explaining an apparent paradox. *American Educational Research Journal*, Vol. 38, No. 4, 813-834.
- Davey, B. (1988). How do classroom teachers use their textbooks? *Journal of Reading*, 31(4), 340-345.
- Derer, K., Polsgrove, L., & Reith, L. (1996). A survey of assistive technology applications in

schools and recommendations for practice. *Journal of Special Education Technology*, 13(2), 62-80.

Hasselbring, T., & Bausch, M. (2006). Assistive technologies for reading. *Educational Leadership*, 63(4), 72-75

Jones, B., Valdez, G., Nowakowski, J., Rasmussen, C. (1995). Plugging In. EdTalk. Council for Educational Development and Research. Washington, DC.

Kim, A., Vaughn, S., Klinger, J., Woodruff, A., Reutebuch, C.B., & Kouzekanni, K. (2006). Improving the comprehension of students with disabilities through computer-assisted collaborative strategic reading. *Remedial and Special Education*, 27(4), 235-240.

National Assessment of Educational Progress (2008). The nation's report card. Institute for Education Sciences, Washington DC.

National Center on Accessible Information Technology in Education (2008), University of Washington, [www.washington.edu/accessit/articles?109](http://www.washington.edu/accessit/articles?109)

National Center for Education Statistics (2001). What are the barriers to the use of advanced telecommunications for students with disabilities in public schools. (Rep. No 2000-042). Washington, DC: US Department of Education, Office of Educational Research and Improvement.

O'Neil, L. (1999). eReader: A technology for reading success. *The Exceptional Parent*, 29 (12), Dec. 54.

Parker, S., Buckley, W., Truesdell, A., Riggio, M., Collins, M., & Boardman, B. (1990). Barriers to the use of assistive technology with children: A survey. *Journal of Visual Impairment and Blindness*, 84, 532-533.

Schug, M. (1997). Why do social studies teachers use textbooks? *Social Education*, 16(2) 97 – 101.

Scott, S.B. (1997). Comparison of service delivery needs in special education. *American Journal of Occupational Therapy in Health Care*, 11(1). 61-74.

Snow, C.E. (2002) Reading for Understanding: Toward a Research and Development Program in Reading Comprehension. Rand Corp: Arlington, VA.

Technology-Related Assistance for Individuals with Disabilities Act of 1988, P.L. 100-407.

Williams, J. P. (1998). Improving comprehension of disabled readers. *Annals of Dyslexia*, 68, 213-238.

Wise, B.W., & Olson, R.K. (1994). Computer speech and the remediation of reading and spelling problems. *Journal of Special Education Technology*, 12(3), 207-220.

## AUTHOR CONTACT

Leon Reisberg can be contacted at Pacific Lutheran University, email: [Reisberg@plu.edu](mailto:Reisberg@plu.edu). ■



# 1, 2, 3... HEY LOOK AT ME!

## BY MO BUTI

How many of you teach in a special education classroom that is "housed" at a school other than a child's home school? Low incidence programs typically consist of children from all over the district. Districts will find schools with space and place a program in that school and bus students in. No more feeling of just being "housed"! At times, it is difficult to assure that your students are involved and included in the culture of your school. Being included and belonging to a school is more than academics. I have created fun ways to help children with significant disabilities (autistic, severe and profound, physically disabled, etc.) be accepted into the social culture of a school where they once may have felt alienated.

Idea number one on Collections was in the December/January 2009 issue; idea number two on the S.A.F.T.E.E. Wheelchair Driver's License was in the February/March 2009 issue; idea number three is in this issue.

## FASHION SHOW

Many of my students' parent often came to school for various events for the siblings of the children in my classroom. Some parents came to watch basketball games, school plays and the spelling bee. I

am not saying that my students could not have been involved in those activities, but I wanted to find something where they could shine ... where they were in the spotlight. What about a fashion show? All you have to do to be in a fashion show is to be beautiful and have a personality, and trust me, my students have both! So a fashion show it was.



The first year, a company volunteered to help decorate the stage and the runway. The runway was adapted to meet the various needs of the students with disabilities in the school. There was a rope at arm level outlining the entire runway, with a balloon hanging in the middle as a guide to where to turn for the students who were visually impaired. The runway was wide enough for wheel chairs. All of the students had particular goals they worked on, including taking steps independently, walking with

their walker, following directions, pushing someone in their wheelchair and many more.

The first year, the clothes were loaned to us by a department store. Each year we did something new and added something, but what never changed were the huge smiles on the faces of the students in the show, on their parents' faces and on the faces of the other children in the school. The students in the show were FAMOUS!

After the first year, it was amazing how the other students in the school changed the way they acted towards my students. My students were big time stars.

Well, each year got better. We were actually able to get all the clothes donated by a department store. The children went to the store and picked them out by themselves. This was a teachable moment. We were also able to see the growth of the students, which was so amazing. We watched one boy start from being pushed in his wheelchair, to pushing someone in a wheelchair with assistance, to walking by holding the teacher's hand, to taking a step or two on his own.

The children look forward to this show every year. They've made so many individual gains that were over and beyond the wonderful feeling of being in the spotlight for the night! Let the spotlight shine!

## AUTHOR INFORMATION

Mo Buti is the Autism Manager for Chicago Public Schools. She can be contacted at [mobuti@hotmail.com](mailto:mobuti@hotmail.com). ■

# READERS EXCHANGE

## EDITOR'S NOTE

**HERE'S YOUR CHANCE TO SHARE YOUR QUICK TIPS AND TRICKS – WHETHER THEY'RE HIGH TECH, LOW TECH OR NO TECH – THAT ARE MAKING A DIFFERENCE.**

**IN THIS ISSUE AND THE PAST TWO ISSUES, MO BUTI, AUTISM MANAGER FOR CHICAGO PUBLIC SCHOOLS, SHARED SIMPLE STRATEGIES THAT HAVE WORKED FOR HER.**

**YOUR IDEAS CAN MAKE A DIFFERENCE TOO. SUBMIT YOUR CONTRIBUTIONS TO [MTUREK@CLOSINGTHEGAP.COM](mailto:MTUREK@CLOSINGTHEGAP.COM) OR VISIT [WWW.CLOSINGTHEGAP.COM/SUBMIT\\_ARTICLE.LASSO](http://WWW.CLOSINGTHEGAP.COM/SUBMIT_ARTICLE.LASSO) TO LEARN MORE.**

# Dyslexia – Spelling Out an Answer with the WordLogic Predictive Text Solution

Dyslexia causes misery for millions of people across the world – with researchers estimating that three to 10 percent of school-aged children in the US are affected by the condition. Coming from the Greek for “difficulty with words,” Dyslexia is a specific learning difficulty that affects the development of literacy and language skills. One of Dyslexia’s main traits is a problem in associating visual symbols with verbal sounds. Dyslexia can also result in minor speech difficulties, such as switching syllables. The condition tends to be resistant to conventional teaching methods, but its effects can be mitigated through appropriate specific intervention, including the application of information technology and supportive counseling.

## GROWING UP WITH DYSLEXIA – CRAIG SPENCER

Craig Spencer has battled with dyslexia from an early age. His school years were a struggle for him as he tried to find ways to avoid the embarrassment and frustration he felt when reading and writing. After leaving school, he was forced to find ways of avoiding all forms of written work by relying on others to help him through as he tried to mask his problem. The 40-year-old, who has successfully set up and runs his own hospitality business, has recently adopted use of a new technology – WordLogic – which helps him tackle his dyslexia.

As a youngster growing up in South Africa, Craig enjoyed reading books, but life changed completely for him when his primary school introduced the Initial Teaching Alphabet (ITA) system. ITA was intended as an aid for children and adults learning to read and write English. The system was designed by Sir James Pitman – grandson of the man who devised Pitman’s shorthand – to help young children learn to read more quickly. ITA uses the 26 letters of the Roman alphabet and another 14 characters to represent phonetic sounds such as “oo” and “th”.

All pupils at Craig’s school were expected to read and spell using the expanded ITA alphabet, but this controversial new system

baffled Craig. He said, “At school and nursery, we used to have lots of books and I used to really enjoy trying to read them. But as soon as the ITA system was introduced, it made it impossible for me. No matter how hard I tried, I couldn’t get my head around it at all. It was a huge blow to my confidence and it eventually developed into a complete lack of all interest, so instead of trying to overcome my dyslexia, I would find new ways to hide it or have to rely on other people to write for me.”

Labeled as an “underachiever,” Craig moved from school to school to further his education. He added, “Because I would find it so hard to write the answers in my exams, I had to get permission to have someone write my exam answers for me – which

phone messages were a real struggle for him. Craig explained, “Once I started working in an office, I managed to devise ways of delegating any writing to my colleagues. I was determined that I would not have to pick up a pen again, but it was so frustrating when you have to ask someone to write a letter for you or you want to type up a contract for a client. Sometimes there is not always someone around to help.

“Everyday tasks that most people would take for granted, such as writing checks, sending e-mails or even sending an SMS, were a constant problem for me. I would make huge spelling mistakes on checks I had written and the cashier would have to hand them back to me and point out the errors, which was a constant source of embarrassment for both of us, because I simply couldn’t see the mistakes. Not to mention the fact that checks would often bounce because of the spelling.”

Craig went on to set up his own hospitality management company, but admits that his dyslexia created serious obstacles. He added: “When I started out on my own it was so frustrating battling with my dyslexia. I used to rely on colleagues to help me with my writing, but I was on my own. I remember on one occasion, a contract proposal that I had drawn up for a client was sent through to them in error with all my spelling mistakes still on.”



presented a whole new set of problems, because I had to think more about the words I was using and where punctuation should go. This meant it would take much longer to get my answers down and the whole process was so frustrating for me and the person doing the writing.”

He continued, “I chose my first job as a chef, because I knew I wouldn’t have to read or write too much. But when I moved into hospitality management, it was much harder to avoid.”

## DYSLEXIA AND WORK

Working in an office environment meant writing was almost unavoidable for Craig, but many of the simple day-to-day tasks, such as e-mailing colleagues and taking

## WORDLOGIC – SPELLING OUT A SOLUTION?

With no known cure for dyslexia, Craig began his search for a piece of assistive technology that would provide some relief from his battle with dyslexia. Initially, he tried several predictive text-based computer programs, but found them to be difficult to use. He said, “Eventually, my wife said that we had to do something about it, so we started searching the Internet to look for some answers. It wasn’t easy finding a suitable piece of technology. I tried predictive text and voice recognition software, but it just was not up to scratch or flexible enough to be used easily. I wanted something that I could just plug into any computer and use

with any application. It seemed like a hopeless search, but then I discovered WordLogic's software."

The patented WordLogic solution is used as typing software, an assistive technology, a research tool and an aid in language learning and instruction. It delivers predictive text solutions designed to accelerate the entry of text and information. The software provides a text entry system and makes multiple typing suggestions based on built-in dictionaries. WordLogic's software also adapts to the individual user by learning text that is frequently used by an individual user – such as words, phrases, names, e-mail addresses and phone numbers. The software also incorporates dictionary, thesaurus, spellchecker, calculator, multi-lingual symbol capability and fast access to Internet sites from common software applications. The software also incorporates the major Internet search engines that enable a user to highlight a word, press the search key, and automatically initiate a search or retrieve the dictionary definition of the word online.

Craig, who has been using the WordLogic software for three months, both at home and at work, said, "As soon as I got used to the new software, it opened up a world of possibilities. The software works in conjunction with all Microsoft Windows compatible applications, both at home and in my office. I can load up a word processing or spreadsheet package and I can still use WordLogic. It gives me the freedom to write what I want, when I want and I no longer have to rely on anyone else to do it."

The core of the technology is a word and phrase text prediction engine. Upon typing a letter the system offers the user a list of five completion candidates at a time, based on more than 90,000 dictionary entries, which can be rapidly selected and inserted into the text. It is possible to add an unlimited amount of custom words, phrases, names and any text strings to your own personal dictionary. WordLogic also develops dictionaries covering a wide spectrum of languages, including English, German, French, Dutch, Italian, Spanish, Portuguese and professional areas, such as journalism, legal and medical. The same technology has been developed for mobile devices with a touch screen that utilize the Microsoft Windows Mobile operating system as well as the desktop, micro-PC and tablet computer markets.

Craig said, "Because the software is able to display a list of words that all start with the same letter, WordLogic offers several word options as you type, which makes me think more about the words I am using. If I am unsure whether the word is the right one I'm looking for, I can just click for the

definition to make sure. It gives me that extra bit of confidence when I'm using it. It has completely changed my business life, because now I can take care of all e-mails, letters and general office administration jobs that I would have usually delegated to others."

The software package is available on a portable USB Flash Drive. This stand-alone version requires no installation, which means it can be taken anywhere in the world and plugged into any PC or laptop to be used instantly.

Craig explains, "Having dyslexia massively dents your confidence and you spend much of your life running from your problem or trying to hide it. As I was growing up, I would look to famous people who suffered from the condition for inspiration. Things

have changed a lot since I was at school and there is more support in place for dyslexia sufferers, but I really feel that if this technology had been available to me as a child, my life would have been very different.

"It has taken a lot of hard work and travelling the world for me to come to terms with dyslexia. With experience, you realize that you can find ways around your problems, but with no cure out there, more sufferers are turning to this kind of software for answers. In my experience, WordLogic's software is a breath of fresh air and for me, has been a real life saver when it comes to my business."

For further information about WordLogic Corporation and its services, please call 604-257-3660 or visit [www.wordlogic.com](http://www.wordlogic.com). ■



# The Making of Proloquo2Go: AAC in Your Pocket

BY SAMUEL SENNOTT

**T**his is the inside story of Proloquo2Go. To me, as a special educator and AAC specialist, it is a dream come true. Nearly the instant I saw the iPhone, I saw in it a potentially powerful augmentative and alternative communication device, as well as a powerful learning tool. This is the story of how that vision materialized.

Children, Teenagers, and adults are discovering the iPhone and iPod touch as an augmentative and alternative communication device, empowered by the new Proloquo2Go software, by AssistiveWare. iPhones and iPod touches seem to be everywhere lately. In the last quarter of 2008, Apple computer has reported selling over 22 million iPods and over four million iPhones. Walking both through country towns and big cities, you frequently see people listening to music with those now iconic white ear buds that are so closely associated with iPods. Now, thanks to the Apple App Store (Application Store), which opened on July 11, 2008, you also see people e-mailing, text messaging, instant messaging, playing games, editing spreadsheets, reading books, watching educational documentary films, reading comics, checking the score of the game, studying high frequency words or nearly anything else you can think of. Now, less than a year later, the new Proloquo2Go makes the iPhone and iPod touch, arguably, one of the most popular AAC device in the world. Proloquo is Latin for "speak out loud." It is pronounced "Pro" as in professional, "lo", as in low, and "quo" as in quotation. It has been a privilege to collaborate with David Niemeijer and AssistiveWare on the development of Proloquo2Go. It is also a privi-

lege to tell the stories and results of three successful and cutting edge Proloquo2Go users, a child, a teenager, and an adult.

Who is using Proloquo2Go? First off, the iPhone and iPod touch are portable devices, so for most users, Proloquo2Go is meant to be an easy, on-the-go solution. Most of the current users presently have devices such as the Tango! by Blink Twice, the Series 5 by Dynavox, the Mercury by TobiiATI, the



The owl is the icon that represents Proloquo2Go

Vantage by Prentke Romich, or the Say-It! SAM by Words Plus, for example. Proloquo2Go is meant to meet a clear need for affordable portable solutions, which has been expressed by AAC users, their families and their teachers. This can be described by something that happened to me while I was on a sabbatical period, collaborating

on the development of Proloquo2Go. While I was waiting in line at the movies to see the recent film, Marley and Me, I began chatting with the family that was behind us. They asked me what I did and I explained that I was a teacher and focused on AAC. They smirked and said their son uses a popular fullsize AAC device, one that was highly familiar to me. We talked a bit and they explained that their son left his device at home because it was too big.

When they saw Proloquo2Go, they explained that it would be terrific to have the best of both worlds, the power of a tabletop device, plus the practicality of a portable. I smiled at them and since then, have thought much about the simple, but profound message. The child simply did not have access to a voice output communication device for large stretches of time because he could not physically carry it. Truly, many options are available, such as light tech and no tech communication system components, a slew of mid tech devices, and non-aided techniques, such as the many sign languages. Yet, now, with Proloquo2Go, they may have another option.

Children are communicating with the new Proloquo2Go and the iPod touch in all sorts of environments. Consider this story, told by the mother of an elementary school aged child who was inquiring about being part of the beta testing of Proloquo2Go. It sounded remarkably familiar to what I experienced at the movie theater.

"Also, [I] wanted to let you know that, as I was watching my son at the Cub Scout Pine Wood Derby this morning, I was so excited to think of your application in use. He was not interested in carrying his "V" around as he and the other boys cheered their cars on ... it was simply too cumber-

some to hold the car, run back and forth up the track and hold the V at the same time. You are opening up a whole new world for communication opportunities for these children and adults. Thank you!!!!"

This story particularly impressed me, as I personally have very fond memories of the Pine Wood Derby from back in my own childhood. Then it hit me, that I imagine an alternate scenario where this elementary school learner walks into the Pine Wood Derby and is talking using an iPod touch and Proloquo2Go. I imagined that people would be very impressed. Much to my surprise, the learner's mother sent in this follow up story and pictures.

"[These are pictures] of him at the Cub Scout Blue and Gold Banquet. Some of the older Scouts were sitting on the risers using their iPhones ... Ryan went up to them (they are friends of his older brother) and sat next to them with his iTouch and started using Proloquo2Go with them. They were intrigued that this "little kid" was using a cool iTouch to talk!! Instead of ignoring him completely, they included him in what they were doing, and you can even see the boy in red who was sitting above Ryan, kept looking down to see what Ryan was saying..."

What a dramatic turn around. Not only is this student using his communication system to express himself, but he is being socially validated by having the "cool" iPod touch. Truly "cool," similar to beauty is in the eye of the beholder, but it sure seems iPods and iPhones have that cool factor working to the max at this point in time.

Another elementary school child speaking with his mother before bed

iPods and iPhones are so appealing to teenagers. This particular teenager, pictured below, finds Proloquo2Go on his iPod touch to be a very useful AAC system, helping him communicate through his high school day. He uses his Apple laptop for school work and beyond and can easily fit his iPod in his pocket for taking with him from class to class.

Adults are using Proloquo2Go as well. One adult user described herself as an "active woman and mother in forties with bulbar onset ALS, a strong survivor." She mostly types out her messages. She is a long time Proloquo user and was so pleased to try out something portable. Through her help, we have been able to refine and will continue to refine the vocabulary set to include relevant vocabulary sets to meet the needs of adult users like herself. Recently, Diane Bryen of Temple Univer-



Elementary school student (in blue), using Proloquo2Go at Cub Scouts.



Elementary school student talking to his speech therapist, using Proloquo2Go with the iMainGo speaker pack.

sity has posted a terrific adult focused AAC vocabulary set. The vocab set is titled Needed Vocabulary for Socially Valued Adult Roles and can be found at [www.disabilities.temple.edu/aacvocabulary](http://www.disabilities.temple.edu/aacvocabulary). What a terrific resource they have shared for adults. The topics include College Life, Emergency Preparedness, Employment and more.

So while some of you may have lined up to get an iPhone the first day they came out, others may be wondering, how do these tools, the iPhone and iPod touch, work? First off, the iPhone and iPod touch are very similar devices, both running a modified version of Apple's Mac OS X operating system. They work with the touch of a finger or body part, but, because they work off of electro magnetic

energy, normal stylus pens will not work. To use a stylus, it has to be a special kind, such as the Pogo stylus, which conducts the energy from your body to the touch screen. The programs on an iPhone or iPod touch are called apps. There are thousands of Apps in the App Store. Some relevant educational apps are Stanza, the book reader app, VCom3D's ASL Signs, the sign language dictionary app, Sight Words, the high frequency word flash card app, and Omnicocus, the scheduler app. You use the iTunes App store to download apps and can either download right onto your device, or you can use a computer with iTunes to download apps. The main difference between the two devices is that the iPhone has a phone and a camera, while the iPod touch does not.

How does Proloquo2Go work? The user interface and whole system was designed to be as easy to use as the iPhone. Users can simply tap items to speak them and send them to the message window. Yet, because of the advanced features of the hardware, there are additional powerful gestures, such as the swiping motion, to advance through vocabulary sets. Users have the option to move between a symbol supported list or grid view, a recents view, or a typing view. The size of items is easily changed from the default 16 items per screen, to the biggest size, one item per screen, to the smallest, which has 36 items per screen, plus many configurations in between.

The vocabulary system is designed to have balance and includes features, such as core vocabulary, My Spaces, and Starters,



Default Home Screen (16 items per page) with symbols in the message window turned on.



One per page view with red background.

just to name a few. The core vocabulary set is called Word Spaces, which includes high frequency words designed to take advantage of the discrete combinatorial nature of language. My Spaces is a place to put personally relevant vocabulary, such as stories or faith related vocabulary. Starters are quick ways to scaffold language use and are heavily influenced by the principles of Gayle Porter's Pragmatically Organized Dynamic Display. Programming is designed to be easy, quick and visible to the AAC user. The programming interface is built into the system so that you can program as you talk. Additionally, a Recents feature gives access to vocab used in the last fifteen minutes, the last hour, earlier in the day, yesterday and beyond. Any of

these recent items can be added to your vocabulary set with the push of the plus key. The goal of Proloquo2Go is to make programming as easy as using the device. There are many more features and accessibility settings you can read about at the Web site, [www.proloquo2Go.com](http://www.proloquo2Go.com).

Overall, the goal of Proloquo2Go is to create a portable solution that is highly affordable, powerful, easy to use, and cool. As you can see from the users featured, it is for individuals of many different ages, who desire to both have a full size device and an AAC device that fits in their pocket. The motto of the project is... we are people who care... sharing with people who care...

## RESOURCES

[www.proloquo2go.com](http://www.proloquo2go.com) – Proloquo2Go  
[www.apple.com/iphone](http://www.apple.com/iphone) – iPhone  
[www.apple.com/itunes](http://www.apple.com/itunes) – iPod and iTunes  
[www.imaingo.com](http://www.imaingo.com) – Speaker pack  
[www.tenonedesign.com](http://www.tenonedesign.com) – Pogo Stylus  
[www.thoughtout.biz](http://www.thoughtout.biz) – iPod and iPhone

Tray Mounts

[www.x-mini.com](http://www.x-mini.com) – A portable capsule speaker that can be worn with a string around the neck.

[www.symbolstix.com](http://www.symbolstix.com) – Proloquo2Go uses the SymbolStix symbol set, which is the symbol set from News-2-You.

## AUTHOR CONTACT

Samuel Sennott can be contacted at [samuel.sennott@gmail.com](mailto:samuel.sennott@gmail.com). ■



List View accessing Word Spaces (Core Vocab Section).



"I want" Starter (nine Items per page).

## MacSpeech, Inc. Releases MacSpeech Dictate 1.3

### New Cache Document Command Empowers Working Beyond Dictated Documents to Include Working with Almost Any Document

MacSpeech, Inc. has announced MacSpeech Dictate 1.3, a significant update to the premier speech recognition solution for the Macintosh.

Now, people can use MacSpeech Dictate to work with any document, including those that were not created with MacSpeech Dictate. MacSpeech Dictate 1.3 features a new "Cache Document" command that allows MacSpeech Dictate to read a document's contents in order to navigate the document and to enter and edit text.

MacSpeech Dictate 1.3 also introduces an extensive new Help Book system, two new visual microphone status indicators, and new commands for "Cache Selection," "Press The Key," "Press The Key Combo" and "Cancel Training." MacSpeech Dictate 1.3 also fixes reported issues, adds several enhancements and is free of charge to all registered customers, using the "Check for Updates" feature.

"MacSpeech Dictate 1.3 now lets you use speech recognition with any document you already have," explained Andrew Taylor, founder and CEO of MacSpeech, Inc. "We're also thrilled with how the Help Book system turned out and are proud to provide this helpful resource to our customers."

MacSpeech Dictate uses a cache to keep track of the text in the window and where the selection or insertion point is located within that text. The new "Cache Document" and "Cache Selection" commands both repopulate the cache from the document or selected content, respectively.

Two new microphone status indicators provide a quick visual cue of whether the microphone is "on" or "off" by quickly looking at either the new Menu Bar status item, or the new microphone status badge on the MacSpeech Dictate Dock icon. To augment

the User Manual and other helpful resources, a new searchable, indexed Help Book for MacSpeech Dictate is now available from the Help menu.

The new "Press The Key" command inputs a specific keyboard key. The "Press The Key Combo" command inputs the simultaneous combination of specified keyboard keys using modifier keys, such as Control, Option and Command. The new "Cancel Training" command dismisses training operations and closes the Recognition window. The MacSpeech Dictate 1.3 update also includes significant interface enhancements for a more efficient, intuitive experience.

MacSpeech Dictate is the only desktop speech recognition solution for the Macintosh. MacSpeech Dictate provides unprecedented speech recognition accuracy with minimal training and works with existing Mac applications. MacSpeech Dictate delivers a truly Mac user experience, and conforms to behaviors already familiar to Macintosh fans worldwide. Beyond dictation, MacSpeech Dictate lets people perform basic navigation of their Mac and control it with their voice to launch applications, open new windows, execute menu commands, etc.

#### COMPATIBILITY AND AVAILABILITY

MacSpeech Dictate requires Intel-based Macintosh hardware and requires Mac OS X 10.4.11 or Mac OS X 10.5.2 and higher. MacSpeech Dictate is currently available in English at [www.macspeech.com](http://www.macspeech.com) in the U.S., at [www.macspeech.co.uk](http://www.macspeech.co.uk) in the U.K., and in other English-speaking countries through International resellers and distributors listed at [www.macspeech.com/resellers](http://www.macspeech.com/resellers). ■

## Gus Communications releases Blackberry and iPhone Text-To-Speech Communication Aid

Gus Communications Inc., has announced the release of MobileTTS, the world's first speech (AAC) software solution for users of Blackberry and Apple iPhones. MobileTTS (text to speech) software is designed for "smartphone" users who are unable to speak verbally as a result of stroke, cancer, laryngectomy or any other condition that has affected their ability to communicate. The software includes premium quality voices for natural sounding speech.

MobileTTS is the only software, worldwide, that offers text-to-speech on both the Blackberry and iPhone platforms. Product details and specifics are presented at [www.gusinc.com](http://www.gusinc.com).

Since 1992, Gus Communications, Inc. (USA) has been a world leader in the development of innovative assistive technology for communication disorders. This includes the Gus! Multimedia Speech System (the first Windows-based speech AAC software), Gus! Talking Keyboard, Gus! Access Keyboard, Gus! Word Prediction, Gus! Dwell Cursor, Talking Overboard, and other Windows based assistive technology solutions. Gus Communications is also the creator and distributor of the Gus! Communicator line of laptop and tablet based communication devices. ■



## Humanware unveils KeySoft 8.0

Humanware has announced KeySoft version 8.0, the latest upgrade to the KeySoft software suite. Version 8.0 was released for mPower and PK platforms in March. KeySoft 8.0 requires one count of a Software Maintenance Agreement (SMA).

### WHAT'S NEW IN KEYSOFT 8.0?

Experience new ways to communicate in real time and enrich your book reading experience with this new KeySoft version. Are you interested in learning more about GPS navigation? You now have the opportunity to try, for a period of 90 days, the acclaimed Sendero GPS. Version 8.0 is packed with a wide range of features to enhance the way you work and learn.

**KeyChat** – Communicate in real time with colleagues, friends and family using state-of-the-art instant messaging (IM) services. Designed using the newest open instant messaging standards, KeyChat can communicate through Google Talk, iChat and other chatting services. Google Talk is an innovative and free IM service. It offers an efficient, clutter-free, and easy way to chat. Google Talk smoothly integrates with the popular Gmail system, allowing you to chat in real time with your e-mail contacts as well. Read and write messages in your preferred grade of Braille, manage conversations and follow chat history with familiar KeySoft commands. Receive an audio or Braille notice when a message arrives. Add new friends or select from your KeyList contacts, or simply go online and enjoy!

**Reading Audible.com books** – KeySoft 8.0 will support Audible.com books. Audible.com offers a wide audio book collection for general and specialized audiences, including the latest best sellers. Teachers and parents can also join their new Audible Kids service to access fun and educational content for school age kids or get tips and ideas on how to help children get the most out of their listening experience. Fully integrated into KeyBook, you can listen to Audible books and customize various settings, such as narration speed and audio tone. Set bookmarks, create text notes, and jump to any place in the book. To obtain Audible books, you will need to become a member of the Audible service and use the Audible manager to authorize your BrailleNote to play the protected Audible books. HumanWare customers can enjoy the complete Audible collection for a free 14-day period.

**Direct access to the new Bookshare site** – The existing support for unpacking electronic books from Bookshare.org is enhanced to include the new .zip or bks2 formats adopted by Bookshare. KeySoft provides everything necessary to wirelessly access the Bookshare.org Web site, download the text, Braille or DAISY electronic book and unpack and read the book, without having to use a PC.

**Support for NIMAS books** – KeySoft will now play NIMAS books. NIMAS books are text files with a structure that is similar to that of DAISY books. KeyBook's rich navigation used with DAISY files is also available for NIMAS files. NIMAS books are instantly

translated into your preferred Braille grade. Choose to read in Braille or let Eloquence speech read to you. Move through DAISY elements or use the familiar KeySoft sentence and paragraph navigation commands. NIMAS (National Instructional Materials Accessibility Standard) is the format for educational textbooks in the United States. NIMAS guides the production and electronic distribution of digital versions of textbooks and other instructional materials so they can be more easily converted into accessible formats. For more information, please visit: [www.nimas.cast.org](http://www.nimas.cast.org).

**Get a taste of GPS** – KeySoft version 8.0 represents a great opportunity to get familiar with GPS. It includes the latest version of Sendero GPS and users can take advantage of a 90-day free trial period to browse their preferred map or navigate outdoors. After this trial period, users can continue to enjoy their system at a preferred price. Users are required to download the desired maps from the Sendero site. For real-time navigation, you will need a GPS receiver.

**More printers available to students** – Students and teachers can now select from a wide range of Hewlett Packard printers. Most new models from the Deskjet, Officejet, Laser jet and Photosmart product lines are supported. Printers supported via the KeySoft generic printing engine must have a USB port. This functionality is only available to mPower users.

The new printing engine can create images of documents in JPEG format. As JPEG files are compatible formats, users can transfer documents to the PC or to non-BrailleNote users without losing the rich formatting available in Keyword.

**Eloquence speech is now supported in the PK** – Use the highly responsive and accurate KeyNote Gold speech that has been one of KeySoft's strongest features or switch to the familiar Eloquence speech that is now widely available on access technology products.

**French Version** – KeySoft 8.0 will be released simultaneously in English and French. The same functions are available on both versions.

### RECENT MPOWER & PK PURCHASES

Customers that have purchased a new mPower or PK units after January 1, 2009 are eligible to receive a free KeySoft 8 upgrade.

### COMPATIBILITY

KeySoft 8.0 is not supported by the Classic models of the BrailleNote and VoiceNote. As previously stated, KeySoft 7.5 was the last release for these Classic devices.

### CONTACT

Contact information for Humanware can be found at [www.humanware.com](http://www.humanware.com). ■

## JITA Technologies, LLC, Announces the Release of the Speech Assistant

Inspired by his wife's speech impairment, Jay Blocksom wanted to develop a telecommunications system so that she could talk on the telephone to her clients, both privately and quietly at her workplace. His inspiration culminated in the development of the Speech Assistant.

The Speech Assistant is a passive telephone interface designed to send text-to-speech audio, from either a computer or speech generating device, directly into a cordless phone or cellular phone, allowing persons with speech impairments to make and receive phone calls over landline, VOIP and cellular networks.

Text is first typed within a text-to-speech program on a computer or speech generating device. The telephone number is then dialed on a cordless or cellular phone. When the called party answers, the text is spoken with a synthesized voice and played directly into the Speech Assistant via an audio cable

connector. The audio is instantly carried by another audio cable from the Speech Assistant, into the phone. The caller is able to hear both sides of the conversation with the supplied headset and can make interjections into the conversation at any time.

The suggested MSRP of \$399 includes both shipping and handling costs. The system is shipped with Windows and MAC OS text-to-speech software (text-to-speech engines and trial synthesized voices). However, it can be used with any computer or speech generating device with an output jack and text-to-speech capability.

The Speech Assistant is developed and manufactured by JITA Technologies, LLC, located in San Francisco, California. It is available for purchase or trial preview to both professionals and non-professionals. For more information, visit: [www.speechassistant.com](http://www.speechassistant.com), or e-mail: [jayblocksom@the-speech-assistant.com](mailto:jayblocksom@the-speech-assistant.com), or call: 800-661-9048. ■

## Plustek Announces Line of Bookreaders to Help with Learning Skills

**New Reading Device with Text-to-Speech and Optical Character Recognition is Ideal for Those Challenged with Learning Disabilities, Persons who are Visually Impaired and Those Looking to Learn a New Language**

Plustek Technology Inc. ([www.plustek.com/usa](http://www.plustek.com/usa)), a manufacturer of consumer, professional and office imaging devices, has announced the BookReader for improved learning skills. Plustek's BookReader has both Text-to-Speech (TTS) and Optical Character Recognition (OCR) features that allow it to read anything from novels to text books to documents in foreign languages – all using a non-synthesized, natural sounding voice. The user simply places a book or document on the scanner and, at the press of a button, the book is scanned for the user's "reading" and/or listening pleasure. The BookReader transforms printed words into audio output that can be saved in MP3 or WAV formats for future access on most portable audio players.

The Text-to-Speech (TTS) feature helps those with dyslexia or other learning disabilities by allowing them to easily and conveniently listen to their reading materials, saving them from the often frustrating and difficult alternative. The TTS feature also helps those interested in learning a foreign language by allowing the user to listen to the correct pronunciation of their foreign language readings. The included scanner software also

features a user-friendly "magnify tool" which enlarges the print, making books easier to read for the vision impaired. This tool also includes a "see & speak" function that allows users to see enlarged text while the scanner is "reading" it aloud.

Designed to enhance learning skills, the unit is competitively priced at \$699. The BookReader is bundled with software that provides high-quality lifelike voices. In addition to OCR software, this reading peripheral comes with Plustek's patented SEE Technology, which uses a curved lamp to provide a clear copy of the book without distortion at the spine on big, bulky books.

### SALES/PURCHASE

The BookReader is available immediately. Plustek products can be purchased through their distribution channel via D&H, Ingram Micro, and other major DMRs and e-tailers, such as PC Mall, NewEgg, Tiger Direct, Amazon and Buy.com. Solution providers and stores interested in carrying Plustek's award-winning line-up of products may contact Plustek directly at [InfoUSA@plustek.com](mailto:InfoUSA@plustek.com). ■

## AT KidSystems Unveils New Line of Software and Demonstrates Latest Enhancements to Cosmo's Learning Systems

### MC Commander and Learning for Children – Exploration Software Featured

AT KidSystems, the manufacturer and distributor of educational and therapeutic products, introduced a new educational software, "Learning for Children – Exploration," and unveiled the latest advancements to Cosmo's Learning Systems at the 2009 Assistive Technology Industry Association (ATIA) Conference and Exhibition in Orlando on January 28-31.

MC Commander is an innovative software program designed specifically for Mission Control, Cosmo's Learning Systems 'computer interface device. With MC Commander, Mission Control can be mapped to any keyboard or mouse function, offering a new option in computer access devices. Mission Control can now be used with any off-the-shelf software. AT KidSystems will also highlight its flagship product, Cosmo's Learning Systems, which is comprised of Mission Control and Cosmo's Play and Learn software.

The "Learning for Children – Exploration" Software program focuses on educational content, including auditory discrimination, concept formation, visual perception, simple logic and reasoning. This new software allows up to 25 users and it collects valuable data related to each child's performance. "Learning for Children – Exploration" can also be used with Mission Control.

Cosmo's Learning Systems engages children with developmental age of two to eight years. Children with and without disabilities use Mission Control to engage CosmoBot in exploring numerous activities featured in Cosmo's Play and Learn software. Mission Control is a versatile computer access device with four aFFx activators and a built-in microphone. Cosmo's Play and Learn software provides entertaining content while supporting individual educational and rehabilitation goals with customization and data tracking. ■

## Hachette Book Group Partners with Bookshare

### Partnership Makes Thousands of Books Available to People with Print Disabilities

Bookshare and Hachette Book Group (HBG) announced that they have entered into a partnership to provide digital books for Bookshare's accessible online library for people with print disabilities. This partnership has two components that break new ground in the publishing industry. First, Hachette has agreed to donate digital files for all 1,700 currently digitized frontlist and backlist titles. Secondly, Hachette will refer all customer service requests for accessible books to Bookshare for fulfillment.

"We are proud to partner with Bookshare to help the print disabled community to acquire and read the authors and content that the Hachette Book Group edits and distributes," said Maja Thomas, SVP Hachette Book Group Audio and Digital Publishing. "Through this partnership, we will be able to support a community in need by giving access to books and content in an efficient and timely manner."

Bookshare believes that people with print disabilities deserve the same ease of access to books and periodicals that people without disabilities enjoy. The Bookshare library provides legal access to more than 43,000 books and 150 periodicals that are converted to Braille, large print or synthetic speech. Thanks to Bookshare, a person with a print disability can read a newspaper the same day it hits the newsstand or download a best-selling book simultaneously with its release.

"Hachette is one of our nation's most distinguished publishers and is at the forefront of digital publishing," said Jim Fruchterman, CEO of Benetech, the nonprofit organization that operates the Bookshare library. "Hachette is leading the industry in its recognition

of a social need through its support of equal access to books. Our highly valued partnership with Hachette is a significant milestone for our 47,000 members."

Fewer than five percent of the books needed by people with print disabilities are currently available in accessible formats. An award from the U.S. Department of Education's Office of Special Education Programs (OSEP) allows Bookshare to expand its collection through publisher partnerships and to grow the number of users who have access to the service. The award also provides free access to qualified students of any age.

Bookshare members download books, textbooks and newspapers in files protected by its Digital Rights Management system to ensure the security of publishers' copyrights. Members read the texts using adaptive technology, such as software that reads the book aloud (text-to-speech) or converts the text to an enlarged font, or hardware devices that allow the book to be read on refreshable Braille displays. Members can also print digital books as embossed Braille.

Bookshare's conversion and distribution of accessible books from publishers' digital files significantly reduces the time and expense required by publishers to provide books in accessible formats for people with print disabilities.

In 2008, Bookshare was completely rebuilt with state-of-the-art Web technology to make it significantly easier for people with print disabilities to access the books they want and need. The new design implements many of the current best practices for Web site accessibility and simplifies the process of reading digital texts. ■

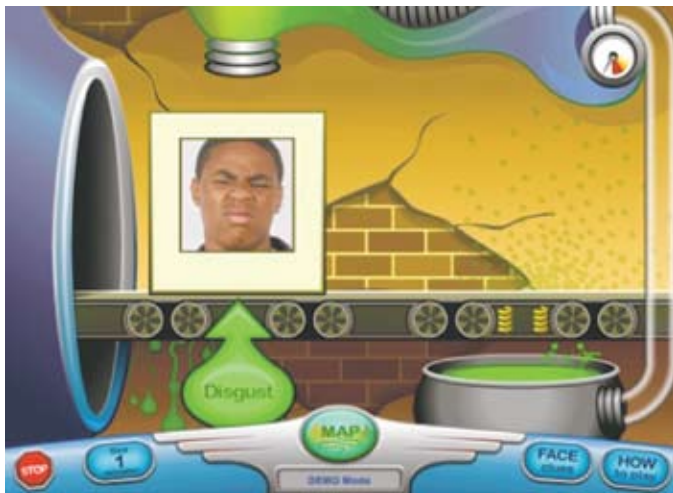
## **FACELAND Software Helps Children with Autism Recognize Facial Expression of Emotions - A Social Literacy Skill**

Don Johnston, a leader in assistive technologies for students with special needs, has announced the release of FACELAND, an innovative software program to help children with autism, Aspergers and developmental deficiencies learn how to recognize facial expressions that display the emotions of surprise, fear, disgust, anger, sadness and happiness.

Most children begin the process of learning to recognize facial expressions that convey emotion at an early age. Children with autism, Asperger's or developmental delays often have difficulty with recognizing facial expressions. This is an important literacy skill in a social environment.

FACELAND was developed by Dr. Dorothy Strickland, President of Do2Learn and Donna Stanger, former Edmark CEO and 20-year teaching veteran, responsible for over 100 award-winning software programs, such as Millie's Math House, Imagination Express and Thinkin' Things. FACELAND combines years of education experience and research, with proven pedagogy and teaching methodology using the power of interactive technology. Successful approaches include carefully structured content, spaced repetition, checks for understanding and clear and consistent feedback, all in a colorful, child-friendly interface.

Ms. Stanger said, "For children who have not intuitively developed this complex skill, we broke it down, as we do for reading and math, and used what we learned in software development to create a program that engages and encourages children to learn. We do this through playful interaction, respectful feedback, game motivation and a welcoming environment. It was a labor of love to assemble and work with a team of highly talented artists and engineers who care about the quality of educational software and about empowering all children."



### **SIX SCHOOLS OF EMOTION COMBINE INNOVATIVE LEARNING APPROACHES WITH ENGAGING GAMES**

Children ride the monorail through an amusement park where six schools and 11 games help them learn to recognize the six most common emotions in a playful and fun learning experience. Real-life scenarios and videos provide the context for learning facial expressions from Zak, a friendly robot. During the exercises, unique videos display one part of a facial expression at a time to help children recognize clues about a particular emotion. Mirror mimic sessions add kinesthetic involvement. FACELAND includes over a thousand photographed faces across ethnicity, age and gender to help children recognize facial expressions and promote generalization and transfer to real-life social behavior.

### **11 MOTIVATING AND FUN GAMES**

As children watch, listen and practice facial expressions, they will learn new skills in a multi-sensory environment. Eleven games motivate practice and persistence. Scenarios and input methods are creatively varied to hold a child's interest. For example, the cursor turns into a spatula for bouncing face cakes. Face cubes are flipped to make rows of happy faces. A submarine vacuum rescues divers showing signs of fear.

### **STUDENT PROGRESS REPORTS**

Teachers and parents will benefit from the easy-to-use management system that records number of correct and incorrect responses and date and time on task. Assignments can be modified to address diverse needs and progress reports can be printed for portfolio assessment or IEP.

Kevin Johnston, Director of Business Development for Don Johnston, said, "FACELAND will help students learn to recognize facial expressions that lead to positive social behavior. Positive social behavior will help them engage in meaningful communication. For 29 years, we have brought dozens of products to the special education community to address students' unique learning challenges. This has held us to the highest standard in offering quality products, like FACELAND, that truly benefit students and individuals with learning disabilities."

FACELAND for Windows/MAC CD is priced at \$179. Volume discounts are available.

### **LINKS**

Do2Learn: [www.Do2Learn.com](http://www.Do2Learn.com)

Don Johnston Incorporated: [www.donjohnston.com](http://www.donjohnston.com)

FACELAND page: [www.donjohnston.com/faceland](http://www.donjohnston.com/faceland) ■

# 27<sup>th</sup> Annual CONFERENCE

## Assistive Technology in Special Education and Rehabilitation



### COME, NETWORK, LEARN – AND RETURN HOME WITH THE KNOWLEDGE AND TOOLS TO IMPLEMENT ALL THAT IS GAINED

Over the years, the annual Closing The Gap Conference has become known as the best educational AT conference in North America. Through shared best practices and research, networking, training, hands-on opportunities and an expansive exhibit hall, participants have found information, strategies and products that have proven beneficial and, oftentimes, unsurpassed for use in their work and in their lives.

The 27<sup>th</sup> Annual Conference runs Tuesday, October 13<sup>th</sup> through Saturday, October 17<sup>th</sup> and is held in Minneapolis, Minnesota. Preconference workshops are scheduled for Tuesday and Wednesday, October 13<sup>th</sup> and 14<sup>th</sup>, and the Conference officially begins with a preview of the exhibits on Wednesday evening, followed by three days of presentations, hands-on labs and exhibitions. Varied levels of participation are available, with registration options listed on page 14 of this brochure.

Inside the next few pages, you'll find detailed listings of the 25 all-day preconference workshops, exhibitors contracted to date and academic credit/CEU, air travel, hotel and registration information. The titles and descriptions of the over 200 one- and two-hour presentations and the additional contracted exhibitors will be available online and in print in August.

We have tried to keep conference costs down and have been sensitive to any and all price increases. The group discounts, presenter and exhibitor discounts, parent and student discounts and early registration (June 30<sup>th</sup>) all apply; and NEW for 2009 are bundled pricing for two preconference workshops, a one-day registration rate and an exhibit hall only registration rate. Graduate-level academic credit and CEUs will again be offered.

***We invite you to participate and encourage you to bring your team.***



### WHO SHOULD ATTEND?

**ANYONE** interested in finding practical and readily available AT solutions for ALL disabilities, mild to significant, infant through adult.

- ❖ Teachers
- ❖ Administrators
- ❖ Speech Language Pathologists
- ❖ Occupational Therapists
- ❖ Physical Therapists
- ❖ AT Consultants
- ❖ Technology Specialists
- ❖ Consumers
- ❖ Parents
- ❖ Students



### WHY ATTEND?

- ❖ Participants will have numerous and unique opportunities to learn, first-hand, from experts in the field, network, ask questions, and see and try the latest AT products and strategies available today.
- ❖ Participants will have opportunities to search for answers to their specific needs. Presenters are approachable; participants are interactive; exhibitors are knowledgeable.
- ❖ Participants can earn academic credit and CEUs.
- ❖ In the end, participants will return home with creative ideas, renewed enthusiasm and a greatly enhanced skill set that will help them easily, effectively and, oftentimes, immediately implement that which was gained through their conference experience.

## CLOSING THE GAP

P.O. Box 68, 526 Main Street, Henderson, MN 56044

Phone: 507-248-3294 • Fax: 507-248-3810

E-mail: [info@closingthegap.com](mailto:info@closingthegap.com) • Web site: [www.closingthegap.com](http://www.closingthegap.com)

## Closing The Gap

OCTOBER 15-17, 2009

Preconference Workshops

October 13-14, 2009

MINNEAPOLIS, MINNESOTA

### ❖ PRECONFERENCE WORKSHOPS

Closing The Gap preconference workshops are all-day, in-depth workshops presented by experts in the field in very practical and effective ways. The content and delivery are unsurpassed and the resulting outcomes for persons with disabilities are overwhelmingly positive and bright.

Many of this year's workshops are new, some advanced, with state-of-the-art technologies being addressed and best practices demonstrated and taught.

### ❖ OVER 200 PRESENTATIONS

Practical and expert-lead presentations during the Closing The Gap Conference will include over 200 one- and two-hour sessions that describe and/or demonstrate successful applications of assistive technology for persons with disabilities. Handouts will be available onsite and online following the conference.

*A second brochure detailing the over 200 presentations will be available on or about August 1, 2009. Details will also be posted at <[www.closingthegap.com](http://www.closingthegap.com)>*

### ❖ STATE-OF-THE-ART COMMERCIAL EXHIBITS

Companies exhibiting at Closing The Gap represent an impressive and varied scope of AT products and strategies from around the world, including knowledgeable reps and professionals with substantial experience in the field to best explain and demonstrate their solutions.

Products on display will range from low tech to high tech and represent solutions for all disabilities and ages. Daily regular AND exclusive hours are scheduled to give participants quality time to explore, try, learn and ask questions, first-hand and face-to-face.

## CONFERENCE SCHEDULE

### Monday, October 12

5:00 pm - 8:00 pm .....Registration Desk Open

### Tuesday, October 13

7:00 am - 8:00 pm .....Registration Desk Open

8:00 am - 4:30 pm ..... Preconference Workshops

### Wednesday, October 14

7:00 am - 9:00 pm .....Registration Desk Open

8:00 am - 4:30 pm ..... Preconference Workshops

5:30 pm - 8:00 pm ..... Preview of Exhibits

### Thursday, October 15

7:00 am - 5:30 pm .....Registration Desk Open

8:00 am - 10:30 am ..... Presentations

10:00 am - 12:00 pm ..... Commercial Exhibits

10:30 am - 12:00 pm ..... Exclusive Exhibit Hours and

Lab Presentations

12:30 pm - 4:30 pm ..... Presentations

1:30 pm - 5:30 pm ..... Commercial Exhibits

### Friday, October 16

7:30 am - 5:30 pm .....Registration Desk Open

8:00 am - 10:30 am ..... Presentations

10:00 am - 12:00 pm ..... Commercial Exhibits

10:30 am - 12:00 pm ..... Exclusive Exhibit Hours and

Lab Presentations

12:30 pm - 4:30 pm ..... Presentations

1:30 pm - 5:30 pm ..... Commercial Exhibits

### Saturday, October 17

7:30 am - 2:00 pm .....Registration Desk Open

8:00 am - 1:30 pm ..... Presentations

9:00 am - 2:00 pm ..... Commercial Exhibits



## STATE-OF-THE-ART COMMERCIAL EXHIBITS

Wednesday evening through Saturday, October 14-17, 2009



## DON'T MISS THE PREVIEW OF EXHIBITS

Wednesday, October 14 • 5:30 pm - 8:00 pm

Great Hall, Sheraton Bloomington Hotel

Open to preconference and/or conference registrants only.

### EXCLUSIVE EXHIBIT HOURS

**Wednesday, October 14** 5:30 pm - 8:00 pm (*Preview of Exhibits*)

**Thursday, October 15** 10:30 am - 12:00 pm | 4:30 pm - 5:30 pm

**Friday, October 16** 10:30 am - 12:00 pm | 4:30 pm - 5:30 pm

(A limited number of lab presentations run concurrently from 11:00 am - 12:00 pm.)

### REGULAR EXHIBIT HOURS

**Thursday, October 15** 10:00 am - 12:00 pm | 1:30 pm - 5:30 pm

**Friday, October 16** 10:00 am - 12:00 pm | 1:30 pm - 5:30 pm

**Saturday, October 17** 9:00 am - 2:00 pm (Open to the public at no charge)



## ACADEMIC CREDIT

Graduate-level academic credit from Hamline University is available for a variety of levels of conference attendance. Participants will have the option of one, two or three full semester credits.

Attend all five days and earn up to three graduate-level academic credits and up to 34 IACET CEUs!

### One full semester credit

Cost: \$119

#### Requirements:

- 12 contact hours
- An outside assignment

(12 Contact hours require one preconference workshop and conference participation; two preconference workshops; OR conference participation only.)

### Two full semester credits

Cost: \$238

#### Requirements:

- 24 contact hours
- An outside assignment

(24 contact hours require at least one preconference workshop (minimum) AND conference participation.)

### Three full semester credits

Cost: \$357

#### Requirements:

- 36 contact hours
- An outside assignment

(36 contact hours require two preconference workshops AND conference participation Thursday - Saturday.)

### Outside Assignments

Outside assignments will need to be turned in to Closing The Gap by November 15th, 2009. Within a few weeks, grades will be issued and then maintained by Hamline University.

To register for academic credit, please indicate your preference as to one, two

or three semester credits on the registration form, pay the appropriate fee, and complete and return the Hamline academic credit form that will accompany your confirmation letter in the mail.

Any questions regarding academic credit and the procedure involved should be directed to Closing The Gap's registration department.



## IACET CEUS

AAC Institute is an Authorized Provider of IACET (International Association for Continuing Education and Training) CEUs. CEUs are being offered for all conference learning sessions without charge. IACET CEUs that relate to the practice of speech-language pathology and audiology can be used for ASHA certification maintenance. RESNA accepts IACET CEUs for ATP/ATS credential maintenance. Most state licensure systems accept IACET CEUs or other forms of self-reporting. Preconference workshops are offered for up to 1.4 CEUs. The conference is offered for up to 2.0 CEUs. For additional information visit [www.aac institute.org/CEUs](http://www.aac institute.org/CEUs).

CEU details and documentation will be available at the Closing The Gap registration desk located on the second floor of the Sheraton.



## CERTIFICATES OF ATTENDANCE

Closing The Gap-issued Certificates of Attendance for conference participation will be available upon request at no additional fee.

# PRECONFERENCE WORKSHOPS

Tuesday and Wednesday, October 13-14, 2009

## Tuesday, October 13, 2009

### ❖ PC-1 Students with Significant Disabilities as Writers, Readers and Communicators: Yes They Can!

Developing successful literacy and communication instruction for students with significant disabilities, including deaf-blindness, is a challenging feat. The Center for Literacy and Disability Studies at the University of North Carolina in Chapel Hill, NC has worked with the North Carolina Department of Public Instruction to develop model demonstration classrooms that provide effective instruction for this population. This workshop will describe the emergent literacy activities being used and the methods of student progress monitoring. Case studies, classroom videos, assistive technology and student writing samples will be shown, supported by small group activities. Participants will receive a CD full of great activities and resources.

*Gretchen Hanser, Ph.D., is the Associate Director of School-Aged Services, Center for Literacy and Disability Studies, University of North Carolina, Chapel Hill, NC; Toy Dills Booth, M.Ed., NBCT, is a Special Educator, The North Shelby School, Shelby, NC; and Elaine Palmer is a Parent, Charlotte, NC.*

### ❖ PC-2 Wiggle Your Way Through Web 2.0

What is Web 2.0 and how will these tools assist me as a special educator or assistive technology provider? Web 2.0 is all about communication, collaboration and creation of information. Throughout this beginner hands-on workshop, we will explore Web-based tools for communication and collaboration, including blogs, wikis, social bookmarking tools and micro-social networking (Twitter). Specific tools will include assistive technology, Twitter, pbwiki, voice thread, wordle, webspiration, interactive learning objects, social bookmarking, flowgrams, video sharing sites and free educational applications for the iPod. This workshop will provide hands-on exploration and instruction on how to use these free Web 2.0 tools for the assistive technology professional. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every one participant; or, participants are welcome to bring their own laptop with Web browser and wireless networking card.)

*Paula Walsler, M.S., CCC-SLP, is the Director of E-Learning, CESA 6, Oshkosh, WI.*

### ❖ PC-3 Every Move Counts, Clicks and Chats Assessment Strategies: Getting the Information You Need for Individuals with Significant Sensory-Motor Differences

This workshop will present nontraditional assessment strategies appropriate for the development of communication and successful AT applications in individuals having severe multiple differences, developmental differences and/or autism. Tools that can be used to identify content, symbol systems, access, switch and voca appropriate for individuals with significant sensory-motor differences will be presented. Information is relevant to the needs of those individuals who are currently unable to communicate their wants and needs spontaneously in their environment, regardless of age or severity of physical and/or cognitive differences. Techniques incorporate current research in the areas of communication, education and sensory integration. There is a \$50 materials fee (program manual) in addition to the cost of the workshop. (Note: Although not mandatory, it is strongly recommended that this Assessment workshop be followed up with Every Move Counts, Clicks and Chats Implementation Strategies [on

Wednesday] to better understand and apply the Every Move Counts philosophy.)

*Jane Korsten, M.A., is a Speech Language Pathologist, EMC, Inc., Leawood, KS; Terry Foss, M.Ed., is an AT Resource Facilitator, Lee's Summit, MO; and Lisa Berry, OTR/L, is a Pediatric Occupational Therapist, Blue Valley School District, Lenexa, KS.*

### ❖ PC-4 Developing Communication Skills for Children Who Face Severe Multiple Challenges: Partner-Assisted Scanning with Pragmatically Organized Dynamic Displays (PODD)

Children who face severe or profound physical, complex communication, and multiple challenges, such as cerebral palsy, rett syndrome or traumatic brain injury, often struggle with trying to juggle the challenges of motor coordination, sensory processing, communication, language, vision and cognition needed to effectively communicate what they are thinking. For many of these children, direct access, using their hands to operate a communication device, is not an effective strategy. Where do you start? How do you tap into the child's communicative intent? How do you develop language skills so that children can begin to communicate what they are thinking? How do you provide a comprehensive adapted communication and learning environment for children who face such significant challenges? This workshop will demonstrate the use of a variety of light tech partner-assisted communication books and strategies that can help give a child a means of interactive communication. Organization of vocabulary by pragmatic intent, (PODD) based upon the work of Gayle Porter (Melbourne, Australia), will be discussed. Strategies for children who have cortical visual impairment in addition to other multiple challenges will also be shared.

*Linda J. Burkhart, B.S., is a Special Educator/Augmentative Communication Specialist/Technology Integration Specialist in private practice, Eldersburg, MD and Dale Gardner Fox, M.S., RPT, is an Assistive Technology Consultant, Hampshire Educational Collaborative, CCATT, Northampton, MA.*

### ❖ PC-5 Putting the Pieces Together: Positioning, Access and Speech Generating Devices

Have you ever worked with a child who is communicating below his/her potential because someone underestimated his/her abilities? Or perhaps all the pieces of the puzzle weren't put together during the assessment to provide a successful outcome? This intermediate workshop will address the critical interconnection and integration of assistive technology systems for individuals who have complex communication needs, significant physical and visual impairments, and rely on speech generating devices (SGDs). Assessment, positioning for access, access methods and specific strategies to build skills and independence will be addressed. Several case studies will be presented to illustrate these points. Participants will have the opportunity to bring their own case studies for group problem solving. Be ready for a fast moving and interactive session that will help you help your clients reach their communication and participation potential!

*Michelle L. Lange, OTR, ABDA, ATP, is the President, Access to Independence, Arvada, CO and Jill Tullman, M.S., is a Speech Language Pathologist/AAC Specialist in private practice, Denver, CO.*

## BUNDLED PRICING AVAILABLE

TWO WORKSHOPS FOR \$480 – A \$60 SAVINGS!

- ❖ \$270 for one all-day workshop 8:00 am - 4:30 pm
- ❖ Preconference workshop registration INCLUDES Preview of Exhibits
- ❖ Academic credit and CEUs available!

### ❖ PC-6 Setting Up and Working with Switch Interfaces

In this hands-on PC lab, participants will explore, set up and/or program four programmable switch interfaces: IntelliSwitch, StealthSwitch AT, SwitchHopper and the Crick Switch Interface. Each switch interface will be configured for Clicker 5, Classroom Suite and simple switch-activated software to compare programming strategies and features. Strategies will also include using the IntelliKeys keyboard as a switch interface for the selected software. Participants will decide appropriate key content for the switches and IntelliKeys and configure all hardware for each application. Guided practice will include step-by-step tutorials and a comparison sheet of interface features to guarantee success after the workshop. To generalize skills, participants will examine various switch activated software programs, determine required switch content and independently set up and program the interfaces of choice. The emphasis will be placed on how the interfaces will work with all the selected software and provide extensive tutorials, tips and techniques to guarantee success. (Hands-on activities will be conducted on PC computers - one computer for every two participants.)

*Patti Rea, M.S., is a Technology Consultant, Adaptive Technology, Celina, TX and Kathleen Post, M.S., CCC-SLP, is the Manager, Assistive Technology Dept., Easter Seals DuPage and Fox Valley Region, Villa Park, IL.*

## WHAT PRECONFERENCE PARTICIPANTS HAVE SAID:

"The concrete ideas, examples and easy-to-understand and real-life applications for students and teachers were fabulous."

~AT Consultant

"I was thrilled with the preconference workshops that I attended and have most definitely acquired valuable information and skills to take home with me."

~Special Education Consultant

"Extremely knowledgeable presenter, MANY excellent practical ideas to take home."

~Parent/Pharmacist

"Great ideas that can be implemented in my classroom. Absolutely excellent!"

~Special Ed Teacher

"Great hands-on -- good explicit instructions, great application, CD to take home."

~Speech Language Pathologist

"Terrific instructor -- able to discuss techniques by using examples. Very good teacher, lots of experience."

~Pediatric Occupational Therapist

### ❖ PC-7 Got Grants(manship)? ... Upgrading Your Grant Seeking Toolbox to Support Tech Initiatives

Have you tried writing a grant proposal but gotten lost in the process? Or tried your hand at writing, and received "not funded" messages from funders? Grants offer our districts and organizations both financial support and flexibility to pursue needed technology initiatives. But, without a "formula" for both finding and compiling proposals, grant seeking and grant writing often feel like climbing Mt. Kilimanjaro. This workshop has two foci: 1) finding grants that are doable and meet targeted needs; and 2) getting the grant proposal out the door. This session will give participants hands-on work on efficient grant seeking, as well as strategies for making good decisions after sorting through grant possibilities. An equal emphasis will be on smart strategies for getting the grant compiled and submitted. We will use free tools, and participants will leave with an online toolbox of resources, tools and strategies for their future grant work. (Hands-on activities will be conducted on Macintosh computers - one computer for every two participants; or, participants are welcome to bring their own laptop with Web browser and wireless networking card.)

*Kathleen Gradel, Ed.D., is an Associate Professor, Language, Learning and Leadership Dept., College of Education, SUNY-Fredonia, Fredonia, NY.*

### ❖ PC-8 Gathering Evidence About the Effectiveness of Technology for Enhancing Academic Performance

As schools seek to implement effective instructional interventions, technology (in the form of assistive technology, instructional technology and universal design for learning) may or may not be considered as a critical strategy. The purpose of this workshop is to explore templates, tools and strategies that can be used to measure and report on the effectiveness of technology for enhancing student achievement. Whether your school is implementing RTI, or your technology team is simply looking for evidence to enhance its decision making, this workshop will equip you with new tools and resources. We'll focus our attention on technology interventions in five areas (reading, writing, research and report writing, math, and study guides and quizzes/tests), grades 4 through post-secondary, that can be used with individual students or an entire class. At the end of the day, you'll have a new toolkit of technology interventions that have been designed to support the academic performance of struggling students and you'll have quantifiable evidence about the academic gains that result from their use. Note: Given the practical nature of this hands-on workshop, participants MUST bring their own laptop computer (Windows XP or Vista or Macintosh OS X) that includes a wireless card, a Web browser and Microsoft Word to the workshop.

*Dave L. Edyburn, Ph.D., is a Professor, Dept. of Exceptional Education, University of Wisconsin-Milwaukee, Milwaukee, WI.*

### ❖ PC-9 Teaching AAC

This hands-on workshop is a must for anyone who supports, evaluates or works with AAC students. Emphasis will be placed on improving the quality of instruction available to all students who use alternative and augmentative communication (AAC), from inclusive situations to special education programs with a range of student ability levels. Participants will have hands-on experience using AAC devices. Practical strategies, teaching tips and instructional strategies will be highlighted. A variety of systems will be available for hands-on use throughout the day, including DynaVox, Blink Twice and Prentke Romich systems. Practical strategies for monitoring student progress, writing learning objectives and data collection ideas will be shared. In addition, light tech methods to support AAC during "the waiting period" and/or to determine potential use of more sophisticated systems will be addressed. Videotaped examples of students will be used to illustrate concepts

and strategies. Each participant will receive a CD full of activities and a light tech AAC system, The Classroom Communication Flip Book. There is a \$30 materials fee in addition to the cost of the workshop.

*Pati King DeBaun, M.S., is a Speech Language Pathologist/Consultant specializing in assistive technology, Creative Communicating, Park City, UT; Karen Biggerstaff, M.S., is a Speech Language Pathologist/Consultant, San Antonio, TX; and Sue Alderfer, B.S., is a Speech Language Pathologist, Montgomery County, Perkiomenville, PA.*

### ❖ PC-10 Next Steps and New Frontiers with Classroom Suite 4!

Some upgrades are minor tweaks from the previous version. Classroom Suite 4, however, takes a big leap in power and possibilities! Learn new hidden features, utilize new actions, and learn how to work with tables to create journals, adapted books or customized fact books for student report projects. Work with scriptable bins, timers, new math tools and more. Create labeling quizzes containing drop down selection lists, along with new student reporting features. An introduction into the new advanced scripting features will take you along the first steps of creating powerful, interactive activities. Imagine it, design it! Sample activities and templates will be provided. This is an intermediate to advanced level workshop. Participants must be proficient with the basics of Classroom Suite 4. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every three participants.)

*Dan Herlihy is an Assistive Technology/Technology Resource Specialist, Connective Technology Solutions, Inc., Hoosick, NY.*

### ❖ PC-11 Adding to Your Bag of Tricks ... and Treats!

Teaching children with autism includes many modifications and accommodations to insure that the students are successful. These should take place from the second the bell rings in the morning until the moment you finally get to sit down and take a deep breath at the end of the day as the children leave. This workshop will teach you many "tricks" to meet the needs of children with autism all day. These will include physical setup, visual strategies, social skills strategies, academic modifications, and much more. I will share many "treats" as well, including free Web sites and free professional development modules to use with all staff working with children with autism and other low incidence disabilities. We will view many modifications and make some as well. You will go home with a bag full of new tricks to use in your classroom. There is a \$35 materials fee in addition to the cost of the workshop.

*Mo Buti, M.A., is the Chicago Public Schools Autism Coordinator, Chicago, IL.*

### ❖ PC-12 Switch Access to Writing

Would your user of switch access technology like to blog? You bet! We all need writing motivation. This intermediate to advanced level workshop will address the issues that impact the user of switches and how to approach and support the writing process through this alternative access method. We will have a wide variety of hardware and software technologies to demonstrate advanced properties of switches and will describe how users of switches can gain efficient access to all writing environments through strategies of using word prediction, abbreviation expansion and other writing tool enhancements. This lecture and demonstration will cover strategies and technologies for scaffolding the written requirements for all students in the curricular areas. We will give examples of switch access to written work supports in language arts, literature, science, social studies and history topics, as well as writing for leisure, e-mail, blogging and on the job.

*Kelly Fonner, M.S., is an Assistive/Educational Technology Consultant, Lake Geneva, WI and Scott Marfilus, M.S., is an Assistive/Educational Technology Consultant, Bayside, WI.*

### ❖ PC-13 Using the iPhone and iPod touch as Assistive Technology: From AAC to Planning Tool and Beyond

With brilliant graphics, great audio, a multi-touch interface and over 15,000 third party applications, the iPhone and iPod touch offer a wealth of possibilities for assistive technology. In this hands-on lab, you will learn about and get to try all the terrific applications that can make a difference for your students and clients. We start with Proloquo2Go, a completely customizable AAC solution for the iPhone/iPod, followed by applications for sign language, for planning/organization, for story telling, for reading/writing and much more. You will learn how the iPhone/iPod can make a difference to people with various disabilities, such as traumatic brain injuries, autism, down syndrome, fluency disorders, dyslexia, mild CP, ALS and others. At the end of the day you will know how and when to recommend an iPhone/iPod; you will know what applications are available; and you will have learned to use some of the most promising AT applications. (Hands-on activities will be conducted on iPod touches - one iPod for every one participant.)

*David Niemeijer, Ph.D., is the CEO, AssistiveWare, Amsterdam, Netherlands and Samuel Sennott, M.S. Ed. in Assistive Special Education Technology, is a Ph.D. Candidate, The Pennsylvania State University, State College, PA.*

### ❖ PC-14 Talking in Class: Helping Students Using AAC Devices

How do you support classroom learning and participation with students using sophisticated AAC devices, especially with all the vocabulary and programming demands? The answer to that question can be found in The Descriptive Teaching Model. This beginning workshop will demonstrate the Model and will outline key requirements for its successful implementation. The Model focuses on the teaching-talking-testing of content vocabulary through the descriptive use of 50 - 350 critical core words. Participants in this workshop will be given a list of those words and will be taught strategies for curriculum standards. The use of a Natural Aided Language Board will be demonstrated, along with a variety of other visual support materials. Speech language pathologists and teachers are encouraged to attend this session as collaborative teams to learn how to implement this model in their classrooms.

*Gail M. Van Tatenhove, M.A., is an AAC-focused Speech Language Pathologist in private practice, AACell, Inc., Orlando, FL.*

### ❖ PC-15 Every Move Counts, Clicks and Chats Implementation Strategies: Where Do You Go After Assessment?

Selecting instructional strategies that lead to student success is frequently challenging for those who live and work with individuals having severe and profound sensory motor differences. This workshop will build on the previous Assessment workshop, providing strategies for incorporating information gathered during assessment into implementation and the development of appropriate programs for students with the most significant sensory motor differences. This session will address ways to design an effective individualized communication program that builds on the abilities identified through the Every Move Counts, Clicks and Chats assessment protocols; the relationship of switch use, symbol understanding, low tech communication and assistive technology (including voca); recognize five levels of sequential strategies that support the development of communication and purposeful switch use; effectively integrate communication training into daily activities by providing appropriate choice-making opportunities; and progress through a hierarchy of alternate and augmentative communication systems in order to identify and provide the communication system (no tech through high tech) that best meets an individual's needs and abilities. (Note:



Although not mandatory, it is strongly recommended that the Every Move Counts, Clicks and Chats Assessment Strategies workshop [on Tuesday] be taken first to better understand and apply that which will be taught in this Implementation workshop. The manual is included in the cost of the Tuesday Assessment workshop.)

Jane Korsten, M.A., is a Speech Language Pathologist, EMC, Inc., Leawood, KS; Terry Foss, M.Ed., is an AT Resource Facilitator, Lee's Summit, MO; and Lisa Berry, OTR/L, is a Pediatric Occupational Therapist, Blue Valley School District, Lenexa, KS.

### ❖ PC-16 Designing Two-Switch Early Literacy Activities for Computer Access: Hands-On Computer Lab - Classroom Suite

Would you like to create your own early and emergent literacy activities using IntelliTools Classroom Suite? This full day hands-on computer lab will take out some of the mystery and teach you tips and tricks for creating custom activities. Templates will be specifically for students who use switches to access the computer, based on "Two Switches to Success" (Burkhart). We will guide you through the process of modifying templates that have been cleverly designed and authored to make modifications simple. You will be able to customize the software for a variety of Early Literacy activities. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every two participants.) NOTE: If you plan to bring your own computer, you will be responsible for having Classroom Suite 4 installed with the latest update from IntelliTools' Web site, along with Overlay Maker 3. If you are still using Classroom Suite 3.2, that is fine, but please also install a demo version of Classroom Suite 4 on the same computer. Plan to arrive 20 minutes prior to the start of the workshop to set up your computer. There is a \$35 materials fee in addition to the cost of the workshop.

Linda J. Burkhart, B.S., is a Special Educator/Augmentative Communication Specialist/Technology Integration Specialist in private practice, Eldersburg, MD; Susan Garber is the Executive Director, AT:LAST, Inc.: The MD AT Cooperative, Columbia, MD; Jeanne Noorisa is a Special Educator, AT Team, Baltimore County Public Schools, Monkton, MD; Jan Kurtz, M.S., is an Occupational Therapist, AT Team, Baltimore County Public Schools, Hampstead, MD; and Marsye W. Kaplan, M.S., CCC-SLP, ATP, is an Assistive Technology Team Leader, Baltimore County Public Schools, Owings Mills, MD.

### ❖ PC-17 Make It Age Appropriate: Structuring Environments and Routines to Engage Your Adolescent and Adult AAC Users in Age Appropriate Communication

Are you exasperated with trying to identify and find or make age appropriate materials, books and resources to meet the needs of your adolescent or adult communicators (AAC), whether they have severe/profound developmental disabilities or acquired complex communication needs? Given the ultimate goal of offering a functional system for communication in the daily environment, all persons involved with individuals with complex communication needs are well served in examining their practices in this area. During this workshop, rationale and criteria for selecting age appropriate topics, activities and materials will be discussed. The basic elements of a structured environment, which includes assessment, effective communication, communication partners and physical environment, will be defined. Mechanisms for assuring provision of person centered, age appropriate communication services will be included. Strategies for structuring daily environments, settings and routines in which the AAC user must function will be shared. Methods and applications for fostering social, intellectual, communicative and emotional development for these individuals will be addressed. Attendees will make one of several different, new kits utilizing a thematic approach to communication programming for adolescents and adults with complex communication needs. Participants will receive a CD

containing materials to make all kits, as well as a guide to over 300 commercially available materials, software and AT devices, with brief descriptions, possible applications and vendor information. There is a \$30 materials fee in addition to the cost of the workshop.

Elizabeth (Libby) S. Rush, M.A., CCC-SLP, CPM, is an AAC Consultant in private practice, Durham, NC and Celeste Helling, M.A., CCC-SLP, ATP, is a Speech Language Pathologist, North Carolina Assistive Technology Program, Charlotte, NC.

### ❖ PC-18 Reaching More Staff: Digital Tools for 21st Century Technology Training

This hands-on computer workshop will focus on 21st century technology training. It will begin with a discussion of the changing role of today's technology specialists, and how important it is to think beyond the face-to-face method of training in order to build capacity. We will engage our audience in a discussion of 21st century professional development strategies that include more digital options, shifting us from the "sage on the stage" to more of the role of facilitator/moderator. You will have hands-on opportunities to use screen capture software to create on-demand training, and learn how to conduct effective webinars. Online training options, including the use of wikis, blogs and podcasts, will be practiced. Frustrated that you can't train staff often enough or fast enough? This workshop is for you. (Hands-on activities will be conducted on PC computers - one computer for every two participants.)

Denise C. DeCoste, Ed.D., is an Assistive Technology Specialist and a High Incidence Accessible Technology Team Leader; William McGrath, M.S., is an Occupational Therapist and Assistive Technology Specialist; and Beth Poss, M.A., M.S., is a Speech Language Pathologist and Assistive Technology Consultant, all, Montgomery County Public Schools, Bethesda, MD.

### ❖ PC-19 The Power of PowerPoint in Special Education

This hands-on, intermediate to advanced level workshop is designed to show participants some tricks and templates for more complete use of PowerPoint with their students. We'll look at older, as well as the newest, versions of this highly popular program with the aim of producing a variety of activities for a wide range of students with special needs. This work will be task-based and will include a wide variety of lesson samples and templates that have been tried and tested with actual students. Participants will learn how to make one-click lessons, make templates, add students to modified lessons to ensure interest, make puzzles, create cross curriculum lessons, have students show what they know in layout mode, create games, create on-screen books with multiple strand choices, make labeled diagrams, create talking maps and more! While creating these lessons, participants will also learn some of the advanced features of the program and tricks that work with particular student needs. Participants are encouraged to bring a flash drive so they can take their work with them at the end of the day. (Hands-on activities will be conducted on Macintosh computers - one computer for every three participants.)

Judith P. Sweeney, M.A. Special Education, is an AT Consultant and the President, Onion Mountain Technology, Inc., Canton, CT.

### ❖ PC-20 Scanning and AAC Systems: Sharing Strategies that Can Help End the Struggling (for both the adult therapist/teacher and the child/AAC user)

This intermediate workshop will explore points we should consider when planning, designing, selecting vocabulary and teaching elements of AAC systems to be used by children who rely on scanning as their access method. We will review known information and discuss components of scanning AAC systems, such as motor tasks required, display design, vocabulary selection, teaching strategies,

physical configuration, types of switches needed and used, and seating. Central to this workshop will be the question, "Can the majority of children who use scanning as their AAC system access method become generative in their language and communication use?"

Michele Bishop, B.A., ATP, is a Teacher/Assistive Technology Specialist in private practice, San Francisco, CA and Karen M. Kangas, B.S., ATP, is an Occupational Therapist in private practice, Shamokin, PA.

### ❖ PC-21 The Balanced Literacy Club: Supporting Literacy in Classrooms and Districts

The prospect of teaching students with significant disabilities to read and write may seem daunting. We chose to start a Balanced Literacy Club, working as a team to support all teachers, therapists, and paras. This project included a full-day presentation, short monthly presentations, including make-it projects, in-class modeling and coaching, and team celebration of successes. So far, the clubs have spanned seven school districts and 33 classrooms, and include a range of students (with cognitive impairments, autism spectrum disorders, physical impairments, and those using AAC devices). Throughout this workshop, we will share assessment ideas, videos, data, specific strategies for all parts of balanced literacy (word study, guided reading, writing and self-selected reading), and tips for getting EVERYONE onboard and excited about pushing for quality, research-based literacy instruction. Presenters will also focus on ideas for replicating this project. Participants will receive a CD with multiple forms for setting up your own club and sample intervention templates. There is a \$15 materials fee in addition to the cost of the workshop.

Caroline Ramsey Musselwhite, Ed.D., CCC-SLP, is an Assistive Technology Consultant and Author, AAC Intervention, Litchfield Park, AZ; Patty Ashby, M.N.S. in Speech Language Pathology, is an Assistive Technology Consultant, Washington Elementary School District, Sweetwater School, Glendale, AZ; Laurel Richardson, M.A. Ed., OTR, is an AT Specialist, Buckeye School District, Goodyear, AZ; and Deanna K. Wagner, M.S., CCC-CLP, is an Assistive Technology Specialist, Madison Elementary School District, Phoenix, AZ.

### ❖ PC-22 Assessment Defining Instruction: Autism and Literacy

This full-day workshop will provide information on assessing and teaching children with autism to read and write. A brief overview of the Four Block Model will be provided and participants will be lead through an overview of practical and functional literacy assessments that provide critical information to inform effective literacy instruction. This workshop will distinguish between three types of children with ASD and their unique reading needs. Students illustrated will include children with hyperlexia and limited comprehension, children who are nonverbal and reading, and children with severe auditory processing and language issues who are verbal. Extensive videos will be shown to illustrate key points, techniques, and the integration of literacy and AAC. The day will include small group problem solving and a CD packed with assessment materials. The day guarantees that participants will leave with an abundance of new ideas and increased appreciation for the breadth of literacy instruction for students with ASD. There is a \$25 materials fee in addition to the cost of the workshop.

Susan Norwell, M.A., is an Educational Specialist in private practice/Focused Learning Solutions and Instructor, Northeastern Illinois University, Buffalo Grove, IL.

### ❖ PC-23 Teaching the Three Rs for Students with Significant Disabilities in the Inclusive Classroom

Although the practice of inclusion has opened classroom doors to students with more severe disabilities, many of these students are still not learning the basics.

This hands-on workshop will combine both instructional theory and computer technology that support systematic strategies for teaching students with severe disabilities in an inclusive setting. Specific attention will focus on the three Rs (reading, writing and arithmetic). Assistive technology and tools that accommodate learning and incorporate universal design will be emphasized for a range of disabilities. A variety of programs and ideas will be explored that scaffold learning, that help with the assessment of learning and that create opportunities for independent student practice. This workshop will include a CD full of supportive materials, activities and assessment templates. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every three participants.) There is a \$20 materials fee in addition to the cost of the workshop.

*Pati King DeBaun, M.S., is a Speech Language Pathologist/Consultant specializing in assistive technology, Creative Communicating, Park City, UT and Dan Herlihy is an Assistive Technology/Technology Resource Specialist, Connective Technology Solutions, Inc., Hoosick, NY.*

#### ❖ PC-24 "But What If the Teachers Won't Do It?" Making a Difference with Your Consultative Services

If you find that the professionals you work with can be more challenging than the kids, this workshop is for you! We feel your pain and we're here to help. As veteran consultants ourselves, we are very familiar with the struggle of promoting change with individuals and site teams in the public school setting. We work directly with teams at over 100 schools and consult with many professionals about students with considerable needs and even extreme behaviors. This, of course, can result in sometimes challenging consultative situations. We have developed tools and techniques for consulting with teachers, para-professionals, related service providers and parents that have been largely successful and resulted in favorable evaluations from our "customers." Participants will have direct opportunities to practice the strategies we use to facilitate success, not only with implementing use of AT, but also with other necessary interventions. Networking, problem solving and brainstorming will be an integral part of this workshop, so bring your good ideas to share. Ample resources on the topic area will be disseminated.

*Keri Huddleston, M.A., CCC-SLP, is an Assistive Technology Consultant, Teru Langsdale, M.S., CCC-SLP, is a Special Education Consultant, and Moira Soulia, M.S., CCC-SLP, is an Assistive Technology Specialist, all, Washoe County School District, Reno, NV.*

#### ❖ PC-25 It's All About Independent Functioning! Using Technology to Develop Critical Life Skills for Students with Autism Spectrum Disorder

Are you struggling with teaching your students (and the adults who support them!) independent functioning skills? If so, this beginner workshop is for you! A primary goal when teaching students with ASD is to decrease dependence on adults. However, this can be quite challenging in school-based settings where the educational climate fosters adult support. For our students with ASD, who by the nature of their disability can become quite "prompt-dependent," this instructional style can be extremely detrimental, resulting in lifelong ramifications. This workshop will address how to appropriately use adult support to teach independent functioning skills. Numerous practical, evidence-based techniques using various modes of technology will be shared, designed to increase the independent functioning skills of our students with ASD. A unique educational planning guide will be shared, designed to assist teams in identifying contexts and situations that require adult support, necessitating the need for instruction and development of independent skills.

*Susan L. Stokes, M.A., CCC-SLP, is an Educational Autism Consultant and Trainer in private practice, Fond du Lac, WI.*

## STATE-OF-THE-ART COMMERCIAL EXHIBITS

Wednesday evening through Saturday, October 14-17, 2009

#### ❖ AAC Institute

[www.aac institute.org](http://www.aac institute.org)

AAC Institute is a resource for AAC families and professionals. Products, services and resources support evidence-based practice and promote the highest performance communication possible.

#### ❖ AbleNet

[www.ablenetinc.com](http://www.ablenetinc.com)

AbleNet offers a complete line of assistive technology products, including communication aids, switches, environmental control, computer access and mounting devices. We also offer research-based special education curricula that meet state and federal mandates.

#### ❖ Accelerations Educational Software

[www.dttrainer.com](http://www.dttrainer.com)

Activity Trainer Video Modeling program with 150 task-analyzed videos allows modifications, collect data, add videos. The DT Trainer instructional software has over 165 programs, data-collection, reinforcers.

#### ❖ Adaptation

[www.adaptation.com](http://www.adaptation.com)

Adaptation manufactures communication aids, environmental controls and switches. Stop by our booth to see new products and application ideas!

#### ❖ Adaptive Switch Laboratories

[www.asl-inc.com](http://www.asl-inc.com)

ASL is dedicated to designing and adapting devices that allow individuals with severe disabilities to achieve movement, environmental control and communication/computer access.



#### ❖ AlphaSmart, A Renaissance Learning Brand

[www.renlearn.com](http://www.renlearn.com)

Neo is the lightweight, portable, easy-to-use laptop that builds excitement for writing and helps students succeed across the curriculum.

#### ❖ Atomic Learning

[www.AtomicLearning.com](http://www.AtomicLearning.com)

Atomic Learning provides Web-based software training and is an integral part of a professional development program, a curriculum supplement and a software training resource. [www.AtomicLearning.com](http://www.AtomicLearning.com)

#### ❖ Attainment Company

[www.AttainmentCompany.com](http://www.AttainmentCompany.com)

Attainment Company produces an affordable line of Augmentative Communication devices, 'GoTalks', books, videos, software, print and hands-on-materials. Research-based literacy, math, and science curriculums are now available!

#### ❖ Augmentative Resources

[www.augresources.com](http://www.augresources.com)

Velcro-receptive communication books, display boards, picture schedules, behavior and time management products and literacy aids. Use pictures on our devices to improve communication, language and literacy skills. Check out our Create-a-Book, Literacy Strips, Squeeze & Find Mat, Slide & Follow Schedule and Talking Pockets - new versatile voice output device.

#### ❖ Beacon-Ridge

[www.beacon-ridge.com](http://www.beacon-ridge.com)

Beacon-Ridge specializes in providing innovative and standard low tech solutions for handwriting, reading, math, and organization. Skills required in school settings and the work place.

#### ❖ Benetech/Bookshare.org

[www.bookshare.org](http://www.bookshare.org)

Bookshare is the world's largest online library of accessible books available to individuals with print disabilities. Currently, through an award from the U.S. Department of Education, qualified U.S. students of any age can get a free Bookshare membership.

#### ❖ Blink Twice

[www.blink-twice.com](http://www.blink-twice.com)

Blink Twice produces the Tango, an AAC device that offers the quickest communication and personalization possible, with multiple modes to address a broad range of individuals.

#### ❖ C.J.T. Enterprises

[www.cjt-yes.com](http://www.cjt-yes.com)

Modular mounting systems allowing AT devices to be optimally positioned to accommodate an individual's unique needs. Come see our NEW products for 2009.

#### ❖ Cambium Learning Technologies

[www.cambiumlearningtechnologies.com](http://www.cambiumlearningtechnologies.com)

For over 25 years, IntelliTools and Kurzweil Educational Systems, division of Cambium Learning Technologies have been leading sources for educational technology to help students learn to their fullest potential, serving students who use assistive technology, have reading or learning disabilities, struggle with limited English proficiency, or need additional instructional support for any other reason.

#### ❖ Chester Creek

[www.chestercreek.com](http://www.chestercreek.com)

Chester Creek designs, markets and manufactures specialty computer keyboards and mice for children, special education departments and assistive technology markets worldwide. Our colorful, color-coded standard and large-key keyboards, as well as our tiny mice meet stringent RoHS and U. S. environmental standards.

#### ❖ Closing The Gap

[www.closingthegap.com](http://www.closingthegap.com)

Discover, Solutions, the many resources that Closing The Gap has to offer. Try, first-hand, the online subscription tool that allows users to search for and compare the latest in AT products and allows users to find, read and share articles that highlight product use and effective AT strategies.

#### ❖ Cognitopia

[www.cognitopia.com](http://www.cognitopia.com)

Cognitopia Software presents Picture Planner, the innovative software that uses pictures, symbols, and text-to-speech prompting in an icon-based personal activity scheduler for individuals with little or no reading ability. Picture Planner is a customizable application compatible with Apple OSX, Windows XP/Vista and Windows Mobile phones and handhelds.

#### ❖ Creative Communicating

[www.creativecommunicating.com](http://www.creativecommunicating.com)

Creative Communicating is dedicated to creating fun, simple and universally accessible resources for communication, early literacy and creativity for students with disabilities. Adapted books, classroom materials and electronic books, as well as support materials for teachers.

#### ❖ Crick Software

[www.cricksoft.com](http://www.cricksoft.com)

At Crick software our mission is to improve literacy achievement for students of all abilities by providing educators with innovative, research-based solutions that are easy to use and cost-effective.

#### ❖ DO-IT, University of Washington

[www.washington.edu/doi](http://www.washington.edu/doi)

DO-IT serves to increase the participation of individuals with disabilities in challenging academic programs and careers. It promotes the use of computer and networking technologies to increase independence, productivity and participation in education and employment.

#### ❖ Dolphin Computer Access

[www.YourDolphin.com](http://www.YourDolphin.com)

Dolphin Computer Access delivers independence to people with visual impairment and learning disabilities with complete access solutions with Dolphin SuperNova and the ultimate alternative format tool EasyConverter.

#### ❖ Don Johnston

[www.donjohnston.com](http://www.donjohnston.com)

Don Johnston empowers educators with accessible instructional, assistive and intervention solutions to help the widest range of student build core literacy skills.

#### ❖ DynaVox and Mayer-Johnson

[www.dynavoxtech.com](http://www.dynavoxtech.com)

[www.mayer-johnson.com](http://www.mayer-johnson.com)

DynaVox and Mayer-Johnson offer a full spectrum of AT solutions for individuals with communication and learning challenges, including the V/Vmax, EyeMax and Boardmaker Software family.

#### ❖ Exceptional Parent (EP Global Communications)

[www.eparent.com](http://www.eparent.com)

Providing multimedia education to all ages of the special needs community.

#### Eye Response Technologies

[www.eyeresponse.com](http://www.eyeresponse.com)

ERICA is a communication system controlled through eye movement alone. The ERICA Dedicated Communication System is 100 percent funded by Medicare and MDA/ALSA funding.

#### ❖ Freedom Concepts

[www.freedomconcepts.com](http://www.freedomconcepts.com)

Working with medical professionals and families since 1991. Freedom Concepts custom-builds each mobility device for individuals with disabilities. Recently we have expanded our existing product line-up to include new devices that compliment and continue our goal of creating fun, therapy and most of all ...Freedom!

#### ❖ HumanWare

[www.humanware.com](http://www.humanware.com)

Humanware products are designed to last, to grow with the user, giving them the independence to compete effectively with peers, to feel connected, to be a vital part of the global information age in which we live.

#### ❖ InfoCor

[www.infocor.com](http://www.infocor.com)

As an A/V designer and integrator, InfoCor also developed and manufactures the Satalight interactive learning station for assistive technology, academic, corporate and government clients.

#### ❖ Judy Lynn Software

[www.judylynn.com](http://www.judylynn.com)

Switch software for students nine months cognitive and up. Age appropriate software features lively graphics and captivating sounds. Stop by booth 274 for a catalog and demo.

#### ❖ LiftVest [www.liftvest.com](http://www.liftvest.com)

LiftVest makes dangerous painful gait belts obsolete! Stylish vest with attached webbing harness for transferring and ambulating the mobility impaired with safety and dignity. Prevents staff back injuries and student and patient injuries. New product 2 - way deep pressure autism vest.

#### ❖ Lightspeed Technologies

[www.lightspeed-tek.com](http://www.lightspeed-tek.com)

The New Sound of Achievement check out the all-in-one REDCAT. This quick-set system saves the teacher's voice and raises academic achievement. Free evaluations available.

#### ❖ Marblesoft-Simtech

[www.marblesoft.com](http://www.marblesoft.com)

For over 25 years, Marblesoft has produced outstanding special needs software for infants through adults. Our Simtech switch training software is also the best-kept secret in assistive technology!

#### ❖ Monarch Teaching Technologies

[www.monarchtt.com](http://www.monarchtt.com)

Monarch Teaching Technologies introduces VizZLe: State-of-the-art Web-based Special Education software for quick and easy creation of customized interactive visual lessons. Over 10,000 visuals, shared lesson libraries. Available online at: [www.MonarchTT.com](http://www.MonarchTT.com)

#### ❖ Origin Instruments

[www.orin.com](http://www.orin.com)

Origin Instruments delivers hardware and software solutions for computer access, switch-based access, speech and low vision. The HeadMouse Extreme is the company's flagship product.

#### ❖ Prentke Romich Company

[www.prentrom.com](http://www.prentrom.com)

Easy yet powerful communication aids by Prentke Romich Company. Come see how easy it is to speak with ECO-14, SpringBoard Lite, Vantage Lite and Vanguard.

#### ❖ ProxTalker.com

[www.proxtalker.com](http://www.proxtalker.com)

Manufacturer of the Logan ProxTalker AT communication device. The first picture exchange communication system that actually talks! Movable tags form voice output picture sentences.

#### ❖ Quillsoft, Ltd.

[www.wordq.com](http://www.wordq.com)

Quillsoft produces WordQ and SpeakQ software for helping people write independently. Our software helps you to improve your writing using word prediction, speech feedback, and text to speech capabilities.

#### ❖ Read Naturally

[www.readnaturally.com](http://www.readnaturally.com)

Read Naturally provides reading solutions for struggling readers, including fluency, comprehension, phonics and assessment. The flagship program has been used nationwide for over 17 years.

#### ❖ RJ Cooper & Assoc.

[www.rjcooper.com](http://www.rjcooper.com)

RJ has been developing products for our special needs since 1984! Come see what he's developed lately.

#### ❖ Saitillo [www.saitillo.com](http://www.saitillo.com)

Saitillo Corporation manufactures and distributes augmentative communication devices, specializing in products for ambulatory individuals. Chat PC, Chat Box, and Bluebird are in our product line.

#### ❖ Silver Lining Multimedia

[www.silverliningmm.com](http://www.silverliningmm.com)

We create distraction-free educational materials for visual learners including Picture This photo CDs, the Great Action Adventure interactive program, adaptive worksheets and the Teaching Hands Clock.

❖ NEW for 2009 — Exhibit hall only registration \$150. See page 44 for details.

❖ NEW for 2009 — Single-day conference registration options. See page 44 for details.

❖ Time spent in the exhibit hall can be applied toward required contact hours for academic credit.

❖ Commercial exhibits open to the public, Saturday only, at no charge, 9:00 am — 2:00 pm.

#### ❖ Slater Software

[www.slattersoftware.com](http://www.slattersoftware.com)

Slater Software offers, Picture It and PixWriter. Both software programs utilize Literacy Support Pictures to promote literacy growth. Slater also offers ready-to-use curriculum materials including Simply Science and Read and Tell.

#### ❖ Switch In Time

[www.switchintime.com](http://www.switchintime.com)

Fun, accessible music and games for all ages.

#### ❖ Talking With Baby

[www.talkingwithbaby.com](http://www.talkingwithbaby.com)

Talking with Baby offers a unique way to teach and learn sign language to be shared with babies and children with disabilities.

#### ❖ Technology For Education

[www.tfeinc.com](http://www.tfeinc.com)

Keyboard Communicator, Smart Speaker, Stealth Switch interface, Chester Creek Keyboards, Scientific Calculator and Zonco Arm Support.

#### ❖ Texthelp Systems, Inc.

[www.texthelp.com](http://www.texthelp.com)

Texthelp Systems provides award-winning literacy software solutions for individuals with reading and writing difficulties such as dyslexia, or who are English language learners.

#### ❖ The Writer Learning Systems

[www.writerlearning.com](http://www.writerlearning.com)

Fusion now offers MATH 101! Build recall and break the finger counting habit. Math Facts, number patterns and much more.

#### ❖ Tobii ATI

[www.tobiiati.com](http://www.tobiiati.com)

Tobii ATI is a premier developer of solutions for people with physical, cognitive and speech disabilities, including the latest in eye tracking and speech generating devices and software. Stop by our booth and be one of the first to preview our new line of Tobii C-Series devices and new Sono Suite of Software!

#### ❖ Words+

[www.words-plus.com](http://www.words-plus.com)

Words+ was founded in 1981 from a desire to help one person communicate. Today, it continues to touch the lives of individuals dependent on durable Words+ products to help them communicate today.



## CONFERENCE REGISTRATION - OCTOBER 15-17, 2009

(Includes Preview of Exhibits – Wednesday, October 14, 5:30 pm - 8:00 pm)

Registration Received On or Before	June 30	September 10	October 1	October 15
<b>Standard Rate</b> <b>Group Discount 5+</b> <b>NEW! Group Discount 10+</b> <i>All group registrations must be received at the same time.</i>	\$395 Groups 5+ Deduct \$20 Groups 10+ Deduct \$30	\$435 Groups 5+ Deduct \$20 Groups 10+ Deduct \$30	\$465 Groups 5+ Deduct \$20 Groups 10+ Deduct \$30	\$495 Groups 5+ Deduct \$20 Groups 10+ Deduct \$30
<b>Parent Rate</b> (A letter describing your child's disability must accompany registration)				\$305
<b>Full-time Student Rate</b> (Proof of full-time status must accompany registration)				\$305
<b>Presenter Rate</b>				\$305
<b>Exhibitor Rate</b>				\$305

### NEW! SINGLE-DAY REGISTRATION

One-day Conference Registration Friday, October 16 – \$250  
One-day Conference Registration Saturday, October 17 – \$125

### NEW! EXHIBIT HALL ONLY REGISTRATION

Exhibit Hall Only, Wednesday evening through Saturday, October 14-17 – \$150

A Certificate of Attendance is available upon request at no additional fee. Graduate-level academic credit and CEUs are available. All who register by October 1, 2009 will receive confirmation by mail.



## PRECONFERENCE WORKSHOPS - OCTOBER 13-14, 2009

(Includes Preview of Exhibits – Wednesday, October 14, 5:30 pm - 8:00 pm)

Tuesday, October 13 – \$270  
Wednesday, October 14 – \$270

**NEW!** Tuesday and Wednesday Bundle – \$480 (\$60 savings)

Some preconference workshops carry an additional fee for materials. There is no additional fee for the Closing The Gap-issued, presenter-signed Certificate of Preconference Workshop Attendance.

## CONFIRMATION

All who register by October 1, 2009 will receive confirmation by mail.

## CONFERENCE DIRECTORY

The official Closing The Gap Conference Directory will be given to registrants at the conference site; many of the conference details will be posted on Closing The Gap's Web site.

## CANCELLATION POLICY

Cancellations must be received in writing by Closing The Gap on or before October 1, 2009. There will be a \$75 cancellation fee for each one-day preconference workshop, each one-day conference registration, or each exhibit hall only registration; a \$125 cancellation fee for each three-day conference registration. Replacements are welcome and must be submitted in writing.

No refunds after October 1, 2009. Unpaid balances are due in full.

A SECOND CONFERENCE BROCHURE DETAILING THE PRECONFERENCE WORKSHOPS, OVER 200 PRESENTATIONS AND THE COMMERCIAL EXHIBITS WILL BE AVAILABLE ON OR ABOUT AUGUST 1, 2009. DETAILS WILL ALSO BE POSTED AT <[WWW.CLOSINGTHEGAP.COM](http://WWW.CLOSINGTHEGAP.COM)>.



## SCHOLARSHIPS

A limited number of scholarships are available for persons with disabilities or parents/guardians of children with disabilities. These scholarships cover registration fees for the conference only (Thursday - Saturday), and do not cover preconference workshops, food, lodging or travel. Scholarships are awarded on a first come, first served basis and one time only

per person. Persons that have previously received a scholarship from Closing The Gap are not eligible.

To apply, complete a conference registration form, indicating your scholarship request. Submit the form and attach a letter describing your/your child's disability and telling us why you would like to attend the conference. Applicants will receive written notification of acceptance or denial.



## CONFERENCE HEADQUARTERS

Sheraton Bloomington Hotel and the adjacent Hotel Sofitel are the official hotels of the conference. All conference activities are held at these two hotels located just 10 minutes west of the Minneapolis-St. Paul International Airport. Limo, taxi, and mobility assistance services are available. Hotel-airport shuttles are available for Sheraton Bloomington Hotel.

## HOTEL RESERVATIONS

Hotel reservations can be made by contacting the conference-site hotels directly. Please refer to the "Closing The Gap Conference" when making your reservations to receive conference room discounts when and where applicable. Both hotels have a limited number of handicapped accessible rooms. If required, state your needs when making your reservations and reserve your room early to better insure a room that will best accommodate you.

### Sheraton Bloomington Hotel

7800 Normandale Blvd.  
Bloomington, MN 55439  
**Phone:** 952-835-7800; **Fax:** 952-893-8419  
**\$149** - single occupancy  
**\$159** - double occupancy  
(Both are in South Tower.)

### Hotel Sofitel

5601 W. 78th St.  
Bloomington, MN 55439  
**Phone:** 952-835-1900  
**Fax:** 952-835-0545  
**\$169** - single, double, triple or quad occupancy

Cancellation policy for both hotels: A deposit of one night's room rate plus tax is required to reserve a guest room for the Closing The Gap Conference. Guest rooms may be cancelled up to September 10, 2009, with no cancellation penalty and your total deposit refunded to you. Any guest room cancelled after September 10, 2009, will be subject to forfeiture of the entire deposit.



## TRAVEL

Closing The Gap has arranged for Northwest Airlines to handle air travel needs for the conference.

For the lowest possible air fares, in the United States and Canada, call Northwest at 800-328-1111 and ask about special Closing The Gap fares (I.D. code NM336). Northwest hours are Monday through Friday, 7:30 am - 7:30 pm Central Daylight Time.

## ACCESSIBLE TRANSPORTATION

To arrange for accessible transportation while visiting the Minneapolis area, have your ADA certifying agency fax your certification information along with the address where you will be staying and dates you plan on being in Minneapolis to 651-602-1660 four weeks prior to your arrival date. Riders must be ADA certified in the state in which they live. For questions regarding certification, call Jim Nieman at 651-602-1665. If you are not ADA certified, call Airport Taxi at 612-331-8294 (special assistance provided if requested).

# 2009 CLOSING THE GAP CONFERENCE REGISTRATION FORM

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Mailing Address (home/work - please circle one) \_\_\_\_\_

City \_\_\_\_\_ State / Country \_\_\_\_\_ Zip Code / Postal Code \_\_\_\_\_

Daytime Phone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Employer \_\_\_\_\_ Occupation \_\_\_\_\_

Is this your first time attending the conference?  Yes  No How did you hear about the conference? \_\_\_\_\_

**SPECIAL SERVICES** (for persons with disabilities only – must be requested by September 1, 2009)

MS DOS text file  Macintosh text file (Text file will be e-mailed.)  Sign interpreter

**CONFERENCE REGISTRATION - OCTOBER 15-17, 2009** (Includes Preview of Exhibits – Wednesday, October 14, 5:30 pm - 8:00 pm)

Registration Received On or Before	June 30	September 10	October 1	October 15
Standard Rate	\$395	\$435	\$465	\$495
Group Discount (Groups of five or more)	Groups 5+ Deduct \$20	Groups 5+ Deduct \$20	Groups 5+ Deduct \$20	Groups 5+ Deduct \$20
Group Discount (Groups of ten or more)	Groups 10+ Deduct \$30	Groups 10+ Deduct \$30	Groups 10+ Deduct \$30	Groups 10+ Deduct \$30
<i>All group registrations must be received by Closing The Gap at the same time.</i>				
<input type="checkbox"/> Parent (A letter describing your child's disability must accompany registration form.)				\$305
<input type="checkbox"/> Full-time Student (Proof of full-time student status must accompany registration form.)				\$305
<input type="checkbox"/> Presenter (Presentation title: _____)				\$305
<input type="checkbox"/> Exhibitor (Company name and booth number: _____)				\$305

\$ \_\_\_\_\_

**SINGLE-DAY REGISTRATION**

One-day Conference Registration Friday, October 16 – **\$250**

\$ \_\_\_\_\_

One-day Conference Registration Saturday, October 17 – **\$125**

**EXHIBIT HALL ONLY REGISTRATION**

\$ \_\_\_\_\_

Exhibit Hall Only, Wednesday evening through Saturday, October 14-17 – **\$150**

**CONFERENCE SCHOLARSHIP** (See page 44 for complete information.)

\$ n/a

I am applying for a conference scholarship. A letter describing your/your child's disability and telling us why you would like to attend the conference must be included.

**PRECONFERENCE WORKSHOPS - OCTOBER 13-14, 2009** (Includes Preview of Exhibits – Wednesday, October 14, 5:30 pm - 8:00 pm)

Tuesday, October 13 – **\$270** 1<sup>st</sup> Choice PC- \_\_\_\_\_ 2<sup>nd</sup> Choice PC- \_\_\_\_\_

Wednesday, October 14 – **\$270** 1<sup>st</sup> Choice PC- \_\_\_\_\_ 2<sup>nd</sup> Choice PC- \_\_\_\_\_

\$ \_\_\_\_\_

Tuesday and Wednesday Bundle – **\$480 (\$60 Savings)**

Participants in PC-8 **MUST** bring their own computer.

I will bring my own computer for:  PC-2  PC-7  PC-16  I will use Closing The Gap's computer.

\$ \_\_\_\_\_

**MATERIAL FEE(S), IF APPLICABLE** (The materials fee equals the cost of the materials provided.)

PC-3 - **\$50** materials fee

PC-11 - **\$35** materials fee

PC-17 - **\$30** materials fee

PC-22 - **\$25** materials fee

PC-9 - **\$30** materials fee

PC-16 - **\$35** materials fee

PC-21 - **\$15** materials fee

PC-23 - **\$20** materials fee

**ACADEMIC CREDIT** (See page 38 for complete information and requirements.)

\$ \_\_\_\_\_

One Semester Credit **\$119**  Two Semester Credits **\$238**  Three Semester Credits **\$357**

**SUBSCRIPTION - AN ADDITIONAL NON-CONFERENCE OPTION** (See page 46 or Web site for more information.)

One-year ONLINE subscription – **\$50**

One-year PRINT subscription – **\$36** (In the US); **\$52** (To Canada)

Combination Subscription

\$ \_\_\_\_\_

One-year ONLINE student subscription – **\$40**

Two-year PRINT subscription – **\$64** (In the US); **\$92** (To Canada)

One-year PRINT and ONLINE subscription – **\$75**

\$ \_\_\_\_\_

**TOTAL AMOUNT** (Payment or purchase order must accompany registration.)

My check # \_\_\_\_\_ for \$ \_\_\_\_\_ is enclosed.

Please Charge to my  Visa  MasterCard Card Number \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Exp Date: \_\_\_\_\_ Cardholder Address: \_\_\_\_\_

Please bill my agency or school district PO # \_\_\_\_\_ (Purchase order must accompany registration.)

**Mail or fax form with payment or purchase order to:** Closing The Gap, P.O. Box 68, Henderson, MN 56044; Fax 507-248-3810. **Or register on-line at:** <www.closingthegap.com>. All who register by October 1, 2009 will receive confirmation by mail. The official Closing The Gap Conference Directory will be given to registrants at the conference site; many of the conference details will be posted on Closing The Gap's Web site. For additional information call 507-248-3294 or e-mail <info@closingthegap.com>.

**Cancellations** must be received in writing by Closing The Gap on or before October 1, 2009. \$75 cancellation fee for each one-day preconference workshop, each one-day conference registration, or each exhibit hall only registration; \$125 cancellation fee for each three-day conference registration. No refunds after October 1, 2009. Unpaid balances are due in full. Replacements are welcome and must be submitted in writing.

# SUBSCRIBE TODAY



**NEW!**

Visit our newly designed Web site:  
[www.closingthegap.com](http://www.closingthegap.com)

**Find the Right AT Strategies and Solutions for your Special Needs**

See for yourself how Closing The Gap Solutions makes finding and comparing AT products, implementation strategies and solutions easier than it has ever been before.

Learn more about an Online Solutions Subscription at:  
[www.closingthegap.com/solutions](http://www.closingthegap.com/solutions)

**FREE 14-day Trial at:**  
[www.closingthegap.com/trial](http://www.closingthegap.com/trial)

## Electronic Textbook

College and university instructors across the country have been choosing Closing The Gap Online Solutions as their textbook of choice!

Students qualify for a special \$40 one-year subscription rate. Inquire for more details.

## Closing The Gap

Assistive Technology Resources for Children and Adults with Special Needs

### Assistive Technology Resources for Children and Adults with Special Needs

Discover Solutions, the print and online resources of Closing The Gap.

# Closing The Gap SOLUTIONS

## PRINT SUBSCRIPTIONS:

### In the United States

- One year (six issues) \$36
- Two years (12 issues) \$64
- Combination, One-year Print and Online Subscription \$75 (U.S. and Canada)

### Canada – Airmail

- One year (six issues) \$52 (U.S. Funds)
- Two years (12 issues) \$92 (U.S. Funds)

Receive a **Free** Resource Directory with a NEW 2-year subscription to *Closing The Gap*

### Resource Directory

\$16.95 plus postage and handling  
(\$5 in the United States; \$5 to Canada)

### Quantity Discounts:

1-9 .....	\$16.95
10-24 .....	\$14.50
25-49 .....	\$12.25
50-99 .....	\$10.50
100-999 .....	\$9.50
1,000 or more .....	\$8.00

### Free shipping and handling

If check in full payment accompanies an order for 10 or more directories (shipped within the United States only) Closing The Gap will pay shipping charges. Shipping and handling charges will be added to all invoices and credit card payments. Purchase orders will be accepted.

## ONLINE SUBSCRIPTIONS:

### Single subscription:

- One-year Subscription \$50
- One-year Student Subscription \$40  
(Proof of current enrollment must accompany order. E-mail or mail statement to Closing The Gap.)
- Combination, One-year Print and Online Subscription \$75 (U.S. and Canada)

### Site license:

Site License – number of users: \_\_\_\_\_  
(Purchase orders accepted.)

Number of Users	Discount	Unit Price
10-49	25%	\$37.50
50-99	50%	\$25.00
100-299	60%	\$20.00
300+	70%	\$15.00

### Please complete the following:

Name \_\_\_\_\_  
 Organization \_\_\_\_\_  
 Mailing Address \_\_\_\_\_  
 City \_\_\_\_\_ State / Country \_\_\_\_\_ Zip / Postal code \_\_\_\_\_  
 \* Phone \_\_\_\_\_ Fax \_\_\_\_\_  
 \* E-mail \_\_\_\_\_

\* Required for Online Subscription and/or credit card orders

Where did you hear about Closing The Gap? \_\_\_\_\_

**Check is enclosed \$** \_\_\_\_\_

**Please charge \$** \_\_\_\_\_ to  Visa  MasterCard

Credit card account number \_\_\_\_\_  
 Expiration date \_\_\_\_\_  
 Cardholder signature \_\_\_\_\_  
 Cardholder address \_\_\_\_\_

Purchase order attached # \_\_\_\_\_

(Allow 8 - 10 weeks for delivery of your first issue.)

**Orders accepted on-line at [www.closingthegap.com](http://www.closingthegap.com)**

Secure Sockets Layer Encryption (SSL) ensures the safety of your credit card transactions.

# Helping **All** Readers and Writers Succeed



**NEW!**  
**Read&Write**  
**GOLD**  
**Version 9**

*“Read&Write GOLD is just what it says – gold for reading and writing!”*

Sheila Burke, Student

**Read&Write GOLD** — Award winning literacy software solution that makes learning accessible for all students, especially those with reading and writing difficulties, learning disabilities, and English Language Learners.



## Read&Write GOLD

Customizable toolbar integrates with mainstream applications for access to any curriculum or digital content with support features for reading, writing, research, and test taking.



## To Learn More

For more information, to schedule a webinar, or to order a **FREE Version 9 Trial DVD**:  
Call - 888-248-0652  
Email - [u.s.info@texthelp.com](mailto:u.s.info@texthelp.com)  
Go to - [www.texthelp.com/ctg](http://www.texthelp.com/ctg)

Also Available  
on **USB!**



Literacy ■ Language ■ Learning

**Texthelp Systems Inc.**

Phone: 888-248-0652 • Email: [u.s.info@texthelp.com](mailto:u.s.info@texthelp.com) • Website: [www.texthelp.com](http://www.texthelp.com)

# NEW GoTalks!

**coming soon**

## GoTalk<sup>®</sup> Pocket

*Thin, light, contoured – fits nicely in hand or pocket!*

- 6 message buttons
- 5 recording levels
- weighs only 200 g



late 2008



early 2009

## GoTalk<sup>®</sup> Express

*A bridge between lo-tech and hi-tech!*

- 32 message buttons
- 3 recording levels
- buttons light when activated
- visual and auditory scanning
- “Express” feature builds phrases or sentences

Check our website for details and availability

[www.AttainmentCompany.com](http://www.AttainmentCompany.com)



# Attainment Company

800-327-4269