Closing The Gap

August/September, 2008

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Closing The Gap

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Closing The Gap

Editor's note
Megan Turek

A New Look!

As Managing Editor of Closing The Gap, I am pleased and excited to showcase this, our first issue, in its new magazine format. With the exception of our extensive February/March Resource Directory issue, all subsequent issues will be published as such. It is our hope that this new format will truly make for easier and more engaged reading, sharing, referencing, and archiving of this ever-increasing, everyday resource.

Although our newspaper format has changed, rest assured that Closing The Gap's commitment to applicable, practical content for all disabilities, in all settings, has not changed and will not change. It goes without saying, however, that we will continue to enhance all aspects of our information dissemination – the newspaper, our Web site and Solutions, and our annual Conference — when and where we see fit.

As you read on, I hope that you, once again, find answers to your questions and innovative ideas and strategies to implement. As a valued reader also, your input is always very important to us. Your feedback on our new format, your ideas for articles, and/or your actual reader-submitted best practice articles are truly of interest and are most definitely encouraged and welcomed at any time. My e-mail address is mturek@closingthegap.com; my phone number is 507-248-3294.

As we look to the end of summer and the beginning of fall, we are excited about this format change, and about our soon-to-be launched newly redesigned Web site and annual practitioner-driven Conference. With appropriate resources, relationships, and dedication and commitment, lives can be impacted, lives can truly be changed.

On behalf of the entire staff, I close by thanking you for your readership and look forward to having Closing The Gap as a critical resource in your work and/or in your life.

Wishing you the very best,
Megan Turek

Closing The Gap

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Creating a Classroom of

Discovery and Wonder

By David Davis

I love computers. I am fascinated by the ability to create, to see patterns in new ways, to try out new ideas, and explore new ways of thinking. Technology provides opportunities for physical and cognitive scaffolding that all of us benefit from, and can help us create an atmosphere of discovery and wonder for

Teachers can download mini-posters to help students (and themselves) start to feel a sense of excitement in their journey.

students (and for teachers) that all too often students with disabilities don't get to experience. And every year we have more and more amazing technology tools that can add a bit of wonder to the curriculum. Join me in this article as we explore some of these tools, using a companion Web site, www.fdlrstech.com/CTG08. If you are at a computer, go to the Web site and follow along.

Let's start by clicking on "Universal Design," and then look down just a bit for "The North Star." These resources reflect, to me, the intent of Universal Design for Learning: that every student is able to see and journey to their personal north star. Teachers can download mini-posters to help students (and themselves) start to feel a sense of excitement in their journey. Students can read "The North Star Story," a story about someone who is learning that their journey is unique. The text is selectable for text-to-speech and there is an audio version using Real Player available as well.

You will find additional resources, clip art, and tools on the North Star Web site, all great for developing a sense of adventure in learning, as well as an understanding that we all have our own North Star to follow.

Scroll down the page and look for "Digital Text." A great tool here is ReadingBar. This utility adds text-to-speech to Internet Explorer for selectable text. Not only does the Internet become a giant talking book, but each word is highlighted as it is read. It also includes a magnification tool, so Web pages, including images, can be enlarged as needed. And finally, it will record the text on a Web page to an audio file. It works on Windows 98 through XP.

Scroll to the bottom of the "Universal Design" page and you will find a selection of "Virtual Meetings." These are collaborative tools that include audio, video, interactive whiteboards, and desktop sharing. Elluminavte and Acrobat Connect both offer free versions that will allow up to three people/computers to have a virtual meeting. The commercial versions will support more people in a room.

These are great tools for students who are home bound. Activities and reports can be

> **"Technology provides opportunities for physical and cognitive scaffolding that all of us benefit from, and can help us create an atmosphere of discovery and wonder for students (and for teachers) that all too often students with disabilities don't get to experience."**

shared by video or audio, PowerPoint presentations can be uploaded and shared, students and teachers can take each other on Web tours, and documents can be shared through desktop sharing. With Talking Communities, another virtual meeting service, most documents can be shared in a screen reader accessible format. Talking Communities also has keyboard shortcuts for many functions.

Go back to the icons at the top of the Web page and click on "Assistive Tech." Here you

will find a wide array of basic assistive technologies and accommodations, mostly related to text-to-speech and computer access, such as screen magnifiers, on-screen keyboards, and alternative keyboards. Scroll down to "Alternative Keyboards" and check out the FrogPad. It is a one-handed keyboard that is available in a wireless version and is wearable; very cool. Or try adding some magic to alternative keyboards with custom overlays. Overlay Maker, an Intellikeys keyboard, and some clip art can result in assistive technology that is also a lot of fun. Clip art is a simple addition, but can really support engagement in an instructional activity, as well as bring in a sense of imagination.

Let's move on to the section "Reading." There is some great information on visually mapping text to help with comprehension, but one of the simplest ways to provide visual support is to view the cached page on a search engine like Google. Go to Google and do a search on any topic. When the list comes up, look for the "Cached" link and click on it. You will find each word in your search criteria highlighted on the page. Now add this to the ReadingBar tool and you have Web pages that can be read aloud with each word highlighted, can be magnified, and have key words highlighted at all times to help students visually navigate the page. Scaffolding "on the fly" like this can be very powerful.

Scroll down to "Online Books & Reading Support" and look for BookBox. BookBox provides inexpensive audio books with great illustrations. They offer the books in a wide variety of languages and the books include subtitles, so a book could be in Spanish with English subtitles or in English with Spanish subtitles. A free book is available for download and it includes a new feature where you can record your own narration to the story. These books are also great for thematic units as students learn about different cultures and countries; reinforcing an atmosphere of discovery.

Now let's move to "Writing." The writing section starts off with lined paper tools and my all time favorite is Stationary Studio. Stationary Studio comes with a large collection of thematic paper designs. Lined paper can be customized by size of lined sections, colors, types of fonts for writing prompts, and writing guides, such as letters, stories, etc. Students' work can be printed out as a page, booklet, set of post cards, etc. The classroom can become a publishing house. A demo version is available.

With that said, you can't beat free, and one of the most incredible free resources online is the "Free Online Graph Paper" at Incom-

petech. Here you will find just about every type of graph paper you can imagine, along with generators that allow you to customize the look of the paper. There are graph and lined papers for writing, music, note taking, or just about anything you need. Do your students need graph paper to help line up numbers in math problems? Here you go. Just pick the paper you want, use the generator to

customize it, and then download the resulting pdf document. This is an incredible resource.

Scroll on down the "Writing" page to the section on "Organize Writing with Graphic Organizers." Here you will find a free collection of graphic organizers from TeacherVision. There are dozens of different graphic organizers and charts that you can print out and
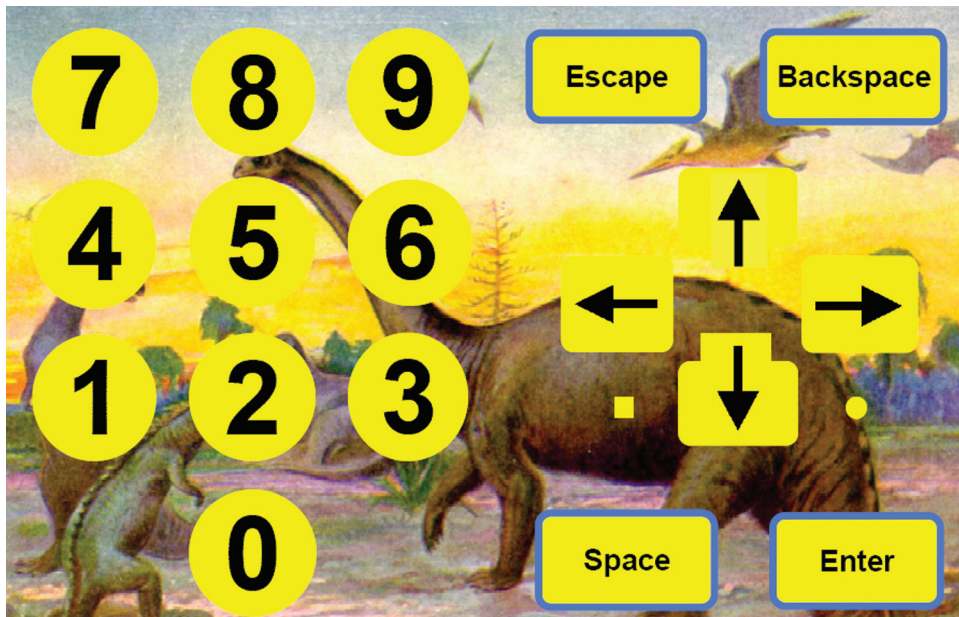
A classic numbers overlay that has a piece of clip art added to the background. Clip art is a simple addition, but can really support engagement in an instructional activity, as well as bring in a sense of imagination.
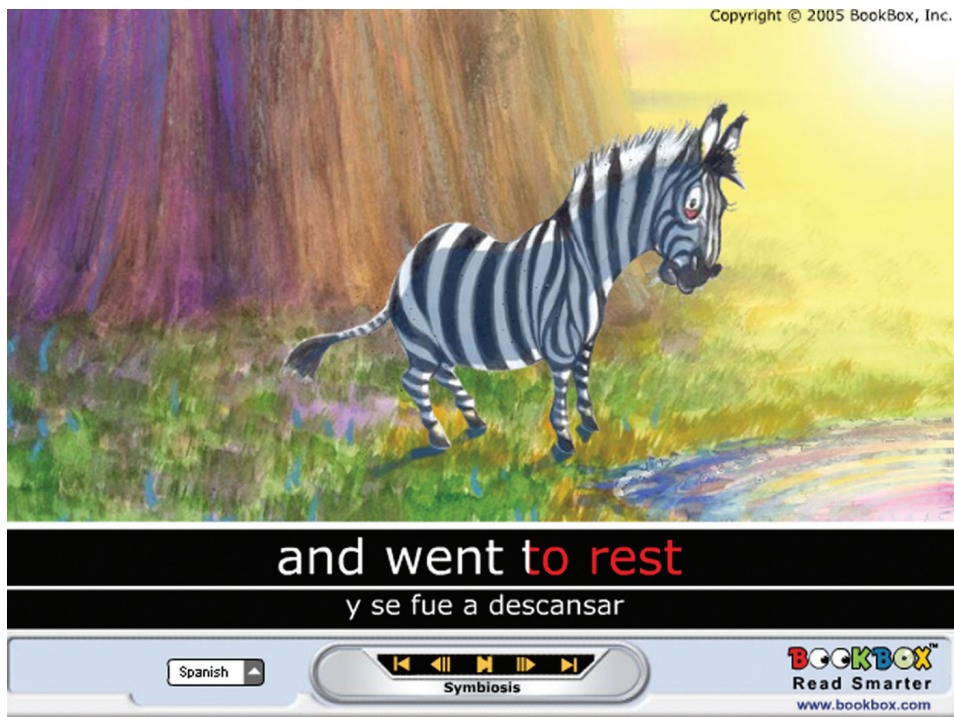
*BookBox provides inexpensive audio books with great illustrations. They offer the books in a wide variety of languages and the books include subtitles, so a book could be in Spanish with English subtitles or in English with Spanish subtitles.*
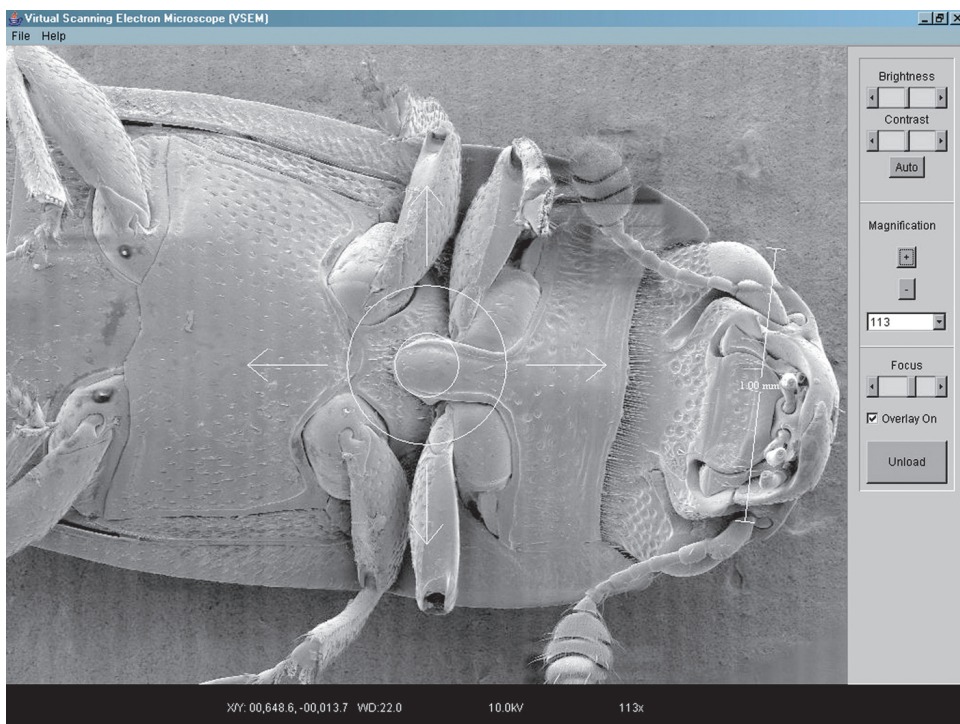
On the "Science" page, you'll find a variety of resources and tools that students can use to develop their own research center. Under "Virtual Labs/Simulations," you will find a link to a free simulation (Windows and Mac) of an electron microscope from NASA.

use with students, including KWL, reading, math, general curriculum, and more.

Look further in the "Organize Writing with Graphic Organizers" section and you will find a link to Rationale. This is an amazing higher order thinking and writing scaffold for argument analysis, and looking at pros and cons. Rationale provides tools to guide students through the process of analyzing the different points of an issue, evaluating the evidence, and then writing a paper on the results. Students work in a graphic, diagram style mode, and when ready to write the paper, Rationale will convert the diagram information into a report. A trial version is available.

Scroll on down the "Writing" page until you find "Technology for Publishing." Look in this section for "flickr toys." These are some of the coolest tools you and your students will find to add imagination to writing and publishing activities, as well as to the classroom. Maybe you have been using the North Star mini-posters and now your students want to create their own posters. No problem with flickr toys. Look on the flickr toys Web site for Motivational Posters and your students can create their own professional-looking posters. You will also find tools for creating movie posters, magazine covers, slideshows, pocket photo albums, and much more.

Most of us don't consider the world of numbers a place of discovery, but there are amazing things to be found in the world of

numbers, data, and patterns. Go to the "Math" section and look under "Interventions/Instructional Support" for InspireData. InspireData provides cognitive scaffolding through visual supports to help students see the patterns in information. The slideshow function gives students a tool to provide image-based presentations. There is also a Web-based survey tool so students can create a data collection form, post it on the Web where it can be accessed to collect information, and then analyze the results visually in InspireData.

The "Virtual Manipulatives" section under "Math" includes a wide range of manipulatives to help students practice pattern concepts visually, as well as provide manipulatives for students who have fine motor limitations and problems using physical manipulatives. Here you will find virtual Cuisenaire rods, virtual rulers and protractors, and geoboards.

One of the links under "Virtual Manipulatives" is Illuminations, a collection of activities that can be viewed by grade level. Under "Activities" on the Illuminations Web site, do a search on grades 3-5, and then scroll down to find the Fraction Models. Students can use sliders to change the sections of the fraction and see the pattern as a fraction, decimal, and percent. There are three fraction models available, as well as many other online activities.

Under "Homework Helpers" on the "Math" page are a number of calculators that students

can use to help complete assignments. Fluency in using a calculator is important on many high stakes tests. Two free calculators, Big Calc (a free download for Windows) and MetaCalc (an online calculator) have sizing options to make the buttons large, helping with vision and with switch scanning systems. Moffsoft Freecalc can be adjusted in size and colors, and includes a simulated paper tape, excellent for reviewing what was entered. There is also a commercial version for about $20 that includes additional features, such as unlimited color schemes, negative numbers in a different color, unit conversions, date and time calculations, and much more.

On the "Science" page, you'll find a variety of resources and tools that students can use to develop their own research center. Under "Virtual Labs/Simulations," you will find a link to a free simulation (Windows and Mac) of an electron microscope from NASA. The microscope simulation, along with the additional libraries, will take a while to download, but are worth it. And here is a tip if you need a quick microscope for a science activity. Use a regular flatbed photo scanner. Just put a transparency on the glass to help keep it clean and then put an object on the transparency to be scanned. It could be a bug, a section of a flower, or basically any object. Scan it at 600 to 1200 dpi or higher, and you now have a digital image than can be viewed on a computer screen, projected, manipulated on an interactive whiteboard, or printed as a science handout.

Finally go to the "Creativity" page and check out some of the incredible art and music tools. "Art Rage" is an incredible natural media program where students can "paint" on the computer using simulated oil paint, chalk, and other media. Try this on an interactive whiteboard. Seriously cool.

For music, try the Super Duper Music Looper, one of the easiest music creation programs available and great for use with switch scanning systems. It uses audio loops, has a very simple interface, and students can save their music creations as wave files, which can be burned to a CD; an easy and inexpensive recording studio. Try the online demo.

Hopefully this article has given you some ideas on creative ways to add a sense of discovery and wonder to your classroom.

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Fast Access, Fast Language, Fast Friends:

A camp designed for adults to Communicate about things that really matter

By Erica Mbangamoh, Peggy Perry, Elizabeth Powers, and Wendy Stickley

Imagine being a young adult and still having the opportunity to go to camp. You could make new friends and joke with your camp staff. Go jet skiing. Battle mosquitoes. Spark a new romance. Go horseback riding. Sleep under the stars and tell stories around a campfire.

Now imagine using an augmentative communication device to communicate with your counselors and fellow campers. How would this fact alone change your experience? Would it make it more difficult to make new friends? How about telling stories around a campfire? What about flirting or telling camp staff that you need bug spray and you need it NOW? What kind of challenges would you expect a person who uses augmentative/alternative communication (AAC) to encounter during their week at camp?

Courage Center (Twin Cities, MN) addresses the intricacies of communication with synthesized speech generating devices (SGDs) at Camp Courage in Maple Lake, MN. The Young Adult Augmentative and Alternative Kommunication Kamp (YAAAKK) provides extensive communication skills curriculum in a camp setting. Courage Center AAC specialists (speech and occupational therapists) with over 29 years of expertise in assessment and treatment/implementation of augmentative and alternative communication collaborate to write curriculum and plan activities for the week-long camp. They also supervise trained volunteers and camp staff to reinforce concepts learned during curriculum throughout all traditional camp activities.

The curriculum begins with an hour of "Camp Courage Coffee Shop," where campers order beverages, interact socially, discuss camp events, listen to each other's music, gossip and build lifelong relationships. Next, campers participate in a two-hour curriculum session designed to address various topics, including the anatomy of a conversation, how to build reciprocal conversation, increasing communication rate (partner strategies and access/rate enhancement tools on SGDs), conversational rules, storytelling, and self-advocacy. After lunch, campers participate in camp activities, such as horseback riding, jet-skiing, swimming, and arts and crafts. Camp staff are called on during these activities

to reinforce curriculum with support from speech and occupational therapists. The evening program is designed by the therapy staff to facilitate maximum SGD use by providing a structured social activity. For example, "Fast Friends" is an activity similar to speed dating, where campers ask and answer questions, one on one, to get to know each other. "Thank God You're Here" is an improvisational communication activity where campers respond spontaneously to scripted lines provided by fellow campers. Campers in 2008 were also given the opportunity to meet Jesse Crain of the Minnesota Twins so they could use strategies learned in curriculum to interact with him.

Data collection is an integral part of YAAAKK. Campers are video taped the first day of camp with a trained conversational partner asking questions, but providing no additional prompts. Following this sampling, the device's language system, positioning and access method are clinically observed and any recommendations for modification of programming or access are made, if necessary, and trialed throughout the week to determine their effectiveness. Then, similar questions are asked and video taped on the last day of camp. These films are reviewed and analyzed for mean length of utterance (MLU), speed in words per minute (WPM) and pragmatic functions (i.e., initiation, turn taking, question asking and answering, clarification if misunderstood, self advocacy statements, etc.). In addition, further data is collected by pre-camp and post-camp surveys completed by campers and caregivers. Scored observations are also collected daily. First year results indicated measurable increases in the quality and quantity of communication exchanges when first and last day data were compared, as well as an increase in speed and complexity of communication acts. Results from this year's data and surveys are pending. The information about YAAAKK 2007 was presented at the ASHA Special Interest Division 12 Augmentative and Alternative Communication (DAAC) conference in Long Beach, CA in February, 2008.

YAAAKK emphasizes the creation of novel messages using a camper's current language system. Staff adds appropriate vocabulary that is functional across environments, not simply camp. This vocabulary is integrated into the camper's current system, rather than adding a number of premade pages. Recommendations regarding access of language, especially for people who scan as their primary access method, are modified as appropriate to increase efficiency and accuracy under the direction of an occupational therapist who has expertise in positioning and access of AAC. These modifications are trialed and evaluated across the week with the permission of the camper. The occupational therapist also assists in recommending rate enhancement strategies to increase efficiency of communication.

More telling than raw data and clinical observation, however, are anecdotal stories collected by staff and volunteers. A prominent example is that of camper "Tiffany." Tiffany arrived at YAAAKK 2007 with a Dynavox 3100 in which her mother had completed over 2000 hours of programming. She had recently seen a speech pathologist that follows her 1-2x per year, who had changed her page set to Gateway 54. Tiffany is an auditory scanner, which means every vocabulary item is announced by the device, and when she hears what she would like to say, she selects it via a switch mounted near her head.

During the first two days of activity (introductions, ice cream social and fast friends), Tiffany was unable to functionally use her device. Problems included inconvenient switch placement, inappropriate switch type, inefficient organization of vocabulary and messages, as well as unfamiliarity with her new page set. Gateway 54 was not functional for her because the core language (most common vocabulary in English) is programmed in the middle of the scanning range and control vocabulary is at the beginning; this extends the amount of time she must wait to get to core vocabulary for communication, as she must listen to the

control vocabulary (e.g., clear, backspace, delete word, etc) first. This is an appropriate setup for someone who directly touches the screen to select words, but is far too slow for an auditory scanner who is unfamiliar with their page set.

After the second evening activity, the camp staff created a personalized auditory scanning page set on a DynaVox DV-4 in order to assist Tiffany in participating in camp activities, directing cares, making friends and socializing with other campers. (A DV-4 was used rather than her own device due to the ease in programming a DV-4 on the computer

rather than manually on the 3100). Vocabulary included core pronouns and verbs, which, when combined, led to pages containing commonly required nouns/phrases (e.g., I + need + to use the bathroom; do + you + want + to hang out). In this manner, Tiffany was offered the ability to generate her own sentences based on vocabulary organized in an efficient manner. The occupational therapist also obtained a proximity switch from Courage Center and placed it near the right side of her face. A proximity switch is able to detect when Tiffany's face was near the switch rather than needing a direct touch. This allowed for increased ease and accuracy of access, as well as decreased skin irritation noted on her face secondary to the shearing action she used to extend her neck to access the switch.

Tiffany is a very determined young woman. Within one day of getting this brand new page set and new switch setup, she was nearly independent. An increase in participation and socialization was noted by all staff and campers involved. Tiffany participated in Thank God You're Here, in which she used the DV-4 to say scripted lines with moderate assistance. She commented about activities at camp as well, using preprogrammed "slang." Tiffany initiated and engaged in conversation with one other camper for approximately 45 minutes and learned about the other camper's family, their likes/dislikes, where he lives, etc. She also asked this particular camper on a date. Tiffany created sentences using the page set, such as "go + swimming" and "can + I + do + it?" with minimal to no assistance by the end of the week. She also initiated a request to greet the entire Camp Courage at afternoon announcements. Tiffany was the only camper with an AAC device to request the privilege of making these announcements. Throughout the week, Tiffany continued to demonstrate increased participation, engaging in conversations with several new, unfamiliar listeners and other campers/camp staff. Tiffany's increase in participation can also be observed in the data, as she demonstrated the greatest increase in complexity and frequency of communication across the week. Lessons addressed in curriculum, including initiation and maintenance/turn taking of conversation, and self-advocacy, were increasingly evident in spontaneous communication by week's end.

Tiffany was a returning camper in 2008, joining 10 other campers. Several camp staff requested to return to YAAAKK, as well as the previous year's volunteer. Devices used by campers this year included DynaVox Vmax, DynaVox Palmtop Impact, DynaVox DV-4, Prentke Romich ECO-14, Prentke Romich Pathfinder, Assistive Technology Mini Merc and the Blink Twice Tango! Campers continued to surprise us with their new communication success. During Minnesota Twins Jesse Crain's visit, campers were requested to have one question available each. However, most campers had multiple interesting questions they generated with minimal to no assistance (e.g., "What is the sign language that the catcher uses to communicate with you?) that kept Mr. Crain talking for nearly an hour straight! Another camper was labeled "camp DJ" after her peers frequently used their SGDs to request she play their favorite MP3s on her ECO-14. Staff also programmed new social pages in her device to allow for more age-appropriate conversation, especially with her boyfriend of seven years. These pages were designed to allow for quick access via her scanning pattern and predictive page linking. (For example, the button "Call me" links to her "Time" vocabulary page so she can set the time and date of when he should call her.) Another camper, "Jackie," demonstrated an increase in efficiency when her Pathfinder's activity row was simply switched from "temporary" to "permanent" persistence settings; this means that when she selects a button in her activity row, the activity stays available to her rather than closing. This prevents the need for rescanning all activities to navigate back to where she was. Jackie was then able to tell a four-step sequenced story independently in a timely manner in front of an audience.

Another unique experience with camp this year was the addition of a person with profound hearing loss who uses a DynaVox Vmax to communicate with people who hear. This camper, "Beth," has cerebral palsy and is unable to speak or write to interact with the hearing community. Beth participated in all curriculum and was supported by two staff with formal experience using ASL/sign. She received her DynaVox Vmax approximately one month prior to camp after using an AlphaSmart for the previous six years. Within two days of arriving at camp, Beth not only initiated conversations with fellow campers and camp staff, but also with a camper in a different cabin who also uses an SGD. These two campers independently developed a strategy for communicating with each other by sitting side by side in their wheelchairs so they could read each other's screens. Beth also initiated a 45-minute conversation with another camper, "David," to discuss personal interests and get to know each other without the interference of staff. We would like to tell you more about their conversation, but we are unable to – they were too independent!

On a final note, "Britney" has a history of not using her SGD, even when prompted, despite severe dysarthria. Upon arrival at camp, Britney's mother commented to her daughter that camp would provide her the opportunity to learn to use her device, to which Britney did not respond. Non-use was evident initially, but after exposure to curriculum and preprogrammed current slang and meaningful questions/comments, Britney began to demonstrate increased motivation and decreased need for prompts to initiate use of her device. She was especially motivated to communicate about boys and her favorite music.

YAAAKK is an annual camp at Camp Courage in Maple Lake, MN and is limited to 12 campers, based on the individualized attention required. (Campers must be a minimum of 18 years of age.) Any person who uses a synthesized SGD proficiently to communicate a variety of messages, but who would benefit from exposure to our curriculum is welcome to apply. All campers are screened prior to acceptance to ensure that this camp would best match their needs. Dates for YAAAKK have not yet been set for the summer of 2009, but camp typically occurs the last week of June. Applications can be obtained at the Courage Center Web site, www.courage.org. Please contact Erica Mbangamoh, MS, CCC-SLP, erica.mbangamoh@courage.org, or Elizabeth Powers, MS, OTR/L, elizabeth.powers@courage.org, for more information and updated camp dates.

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DISKoveries

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

By Joan Tanenhaus

Show Me AAC (Life Tools, available from Mayer-Johnson: 800-588-4548, www.mayer-johnson.com) This program is designed to help students learn and practice vocabulary and basic concepts, including about 350 words within 12 categories (clothes, food, vehicles, bedroom, etc) , colors, shapes, size, letters, numbers, and time. Pictures or PCS can be used. The program can be accessed with a mouse, touch screen or with scanning. Each activity has four playing modes – Practice (click to hear the name); Find (computer asks you to find and click a specific object/item); Memorize (computer asks you to find several cards in a row); and Recall (concentration-type game). There are many options for control of numbers of pictures displayed at a time, specific letters to work on, choice of letter name or letter sound, number range for counting activities, specific shapes and colors to work on, and others. This is an outstanding program and is appropriate for all ages and levels and excellent for mastering basic concepts and vocabulary.

Flashwords AAC (Life Tools, available from Mayer-Johnson: 800-588-4548, www.mayer-johnson.com) This program is designed for preschool/kindergarten level and stresses early reading skills. There is a four-step learning activity that helps the user to read the words, followed by five games that provide practice, and additional on-screen reading books. The four-step learning process includes the following: Where can you find the same word/letter (visual matching); This says ---, Find another that says --- (visual and auditory match); Where does it say --- (auditory only); and Which word is this. Following this, there are five different games (fishing game, a truck game, a spinning game) that can be played in visual mode (match word to word or letter to letter), mixed visual and auditory mode (listen and match to either letter or word). Games include concentration (word to word, letter to letter or spoken letter to written letter); match letter or words; listen to a word, letter or sound and identify it, or match words. Then, there are picture books that can be played in training, learning and test modes. Access is with mouse, touch screen or switch with scanning. An extensive manual is available on the CD in PDF format. This is a good choice for early readers who are struggling with basic matching and word recognition.

Learning Language with Symbols (Attainment: 800-327-4269, www.attainment-company.com) This Windows program helps students learn over 1000 Mayer-Johnson Picture Communication Symbols (PCS). In the Matching activity, a symbol is presented on top and two to four smaller cards are shown on the bottom. The task is to match the symbols. The symbol name is spoken and the student can click to hear the word in a sentence (and see a printed sentence with

Candy Land Dora the Explorer Edition from Activision.

the symbol.) (Practice mode provides feedback while the Quiz mode does not). Different learning levels include matching PCS symbols to symbols; photographs and animations to symbols; text to text; text to PCS and photographs; and PCS symbols to text. Symbol lists can be created and pictures can be added and used in above activities. The Voice Recorder activity allows students to speak into a microphone to record and play back their own speech. There is data collection, automatic leveling, IntelliKeys overlay included, and single switch and two switch scanning. This is a valuable program for all students needing skills training with symbols.

Kurzweil 3000 USB for Windows Version 10 (Kurzweil Educational System: 800-894-5374, www.kurzweiledu.com) Kurzweil 3000 for Windows Version 10 is an outstanding reading, writing and learning

Kurzweil 3000 now comes on a USB flash drive, letting users gain immediate access without installation as well as access to their files from whatever computer they are using.

program for students with visual, reading, writing or learning difficulties, appropriate for elementary through college level. It now is available in a USB version that lets students and teachers access Kurzweil 3000 on any Windows computer without installing any software. Kurzweil 3000 now comes on a USB flash drive, letting users gain immediate access without installation. Saving files and user settings right onto the flash drive lets students have access to their files whatever computer they are using. It's handy also for demonstrating Kurzweil at IEP meetings with parents or at conferences. It provides an easy way to move software from one classroom or lab to another, so that a limited number of licenses can be used anywhere in the school without having to install it on a network. It also enables students and teachers to use the software at home. 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. (A full review of Kurzweil and its features was in DISKoveries, in the October/November 2006 issue.)

Kidspiration 3 (Inspiration Software, 800-877-4292, www.inspiration.com) This is a new version of Kidspiration, a program created for Kindergarten through Grade

5, that helps develop reading and writing skills, builds math concepts, and develops thinking skills across the curriculum, using the principles of visual learning. (Previous versions have been reviewed in DISKoveries in April 2004.) The new version of Kidspiration 3 (for Macintosh and Windows) includes an expanded symbol library and a symbol search tool. There is a combination dictionary and thesaurus that helps develop vocabulary and reading comprehension. Entries include definitions, synonyms and antonyms, parts of speech, sample sentences, images and recorded speech to guide pronunciation of words. There is also enhanced audio support, with longer recording time, support for higher resolution monitors with larger visual workspace and is compatible with Windows Vista. The Math View has five visual math tools: Color Tiles (to count, compare and explore numbers); Pattern Blocks (to explore patterns, similarities, fractions, etc.); Base Ten Blocks (to help understand place value and strengthen number sense), Fraction Tiles; and Fraction Boxes (to compare, order, simplify and find equivalent fractions). There are more than 150 cross-curricular activity templates, as well as standards-aligned lesson plans and online teacher resources. Excellent also for use with English Language Learners and English as Second Language students. For a free 30-day trial of Kidspiration 3, visit www.inspiration.com/freetrial. Kidspiration in the Classroom: Reading Essentials: This lesson plan book, covering two grade spans (K-2 and 3-5), contains 50 standards-based lesson plans designed to support reading instruction with Kidspiration 3. Lessons for grades K-2 focus on early literacy, phonemic awareness, phonics, vocabulary and comprehension. For grades 3-5, the lessons focus on comprehension, vocabulary and content literacy. Each lesson includes standards alignment, lesson description and step-by-step instructions. Some lessons also include teaching suggestions to support English language learners.

Technology for Communication and Cognitive Treatment: The Clinician's Guide (Joan L. Green, M.A., CCC-SLP) This excellent and very comprehensive book is written as a guide to enhancing treatment outcomes for those with speech, language, learning and cognitive disabilities, using technology. It 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 multi-media

Show Me AAC from Mayer-Johnson.

programs and programs useful in generating printed treatment materials. Suggestions are made regarding specific software programs, adaptive equipment, techniques to use, technology tips, Web-based solutions, and much more. Just published in 2007, it is up to date on its resources and references. One chapter is devoted to games and free, online and interactive activities. A section is devoted to online support, information and discussion groups, including an index of vendors and products. This is a helpful book for computer users of all levels, with support material on why to use technology and how to get started in different treatment settings. A great resource for speech-language pathologists and assistive technology specialists, as well as OTs, reading specialists, special education teachers, and others interested in integrating computers into the curriculum, and in addressing treatment goals with technology.

Dora and Diego Programs from Activision (Activision: www.activision.com) Young children will love this new series of computer programs that star their favorite TV characters Dora and Diego. In Go Diego Go! Safari Rescue for Mac and Windows, they will help Diego save the elephants while they explore the Serengeti in Africa. They will fix all the mixed up animals, beat the drum to put the stripes back on the zebra, learn animal facts and attributes and play mini-games (shape matching, puzzle solving, music). In Go Diego Go! Wolf Pup Rescue (Windows only), they will explore the rainforest to save a lost wolf pup. Along the way, they will match animal babies to their mothers, paddle down the river and save otters, match animal sounds and footprints. They will find hidden babies by matching animal sounds, jump logs to get to the top of the hill, and solve puzzles and mazes. There are three difficulty levels. In Candy Land - Dora the Explorer Edition (Mac and Windows), players join Dora and her friends and play the classic board game to get to the Fiesta. Up to four players (or teams) can play at one time and there are also eight mini-games that strengthen shape matching, letter recognition, color identification, counting and more.

Mia: Reading (Kutoka: 877-8Kutoka, www.kutoka.com) For 5-9 year olds, this fun program focuses on literacy skills within the context of a story about Mia, the mouse, and some troublesome bugs who invade her home. There are twelve activities with four levels of difficulty that include goals such as associating images to words, punctuation,

phonics, rhymes, spelling, sentence structure, vocabulary, reading comprehension, verb tense, following instructions and more. The activities are integrated into the story but can also be practiced individually outside the story. Progress is monitored and viewable. The program is on a DVD with great graphics, surprise animations, and lots of places to explore, for both Windows and Macintosh (and works with Vista).

Some new fun DVDs for the preschool set include: **Barney: Hi! I'm Riff!** (featuring Barney's new friend Riff, the first new dino to join Barney & Friends: www.barney.com); **Bob the Builder: The Three Musketrucks** (five new adventures with new friends: www.bobthebuilder.com); and **HIT Favorites Summertime Fun!** (Barney, Bob the Builder, Angelina Ballerina, Thomas & Friends and Fireman Sam in five enjoyable summer adventures: www.hitentertainment.com). All are from Twentieth Century Fox Home Entertainment and HIT Entertainment.

GRAPHICS AND MULTIMEDIA

Adobe Visual Communicator 3 (Adobe: www.adobe.com) For those professionals and agencies wishing to create newscast-style video presentation, this program can help accomplish that goal. With Windows XP, microphone and Web cam or camcorder, first, you can choose from graphics and templates to help you generate the style that suits your video. Then you type or paste a script into the teleprompter to narrate your presentation. You can drag and drop any image, graphic, video clip, PowerPoint slide or music clip and place it next to the words that correspond. When you press Record, you can read from the teleprompter – just like a TV newscast. You can then save your presentation in the video format of your choice. Video presentations can then be shared via the Web.

Easy Media Creator Suite 10 (Roxio/ Corel: www.roxio.com) This new version is compatible with Windows XP and Vista. Not only does it copy CDs/DVDs, and burn data disks to CD or DVD, it also converts audio and video files to most popular formats and even sends videos to YouTube with one click. You can also turn your photos into calendars, cards and other keepsakes and prepare pictures and clips for your iPod, PSP, and mobile phone. With your photos and videos, you can add soundtracks, auto-fix your camera phone photos, and use DVD menu styles and photo project templates. It's easy to use and fast – tag, assign keywords and instantly find your favorite photographs, wherever they are on your computer. You can restore old photos

Flashwords AAC from Mayer-Johnson.

by removing scratches, dust and blemishes and go from camera to DVD with one click. You can mix still images, videos and music to create slideshows, schedule backups and secure your data with encryption and password-protection. Great new program!

Corel's ULead VideoStudio 11 Plus (Corel/www.ulead.com, www.corel.com) For those of you wondering what to do with the movies you take with your digital cameras, here's a product that will provide you with easy video editing and DVD authoring. You can use video and photos from camcorders, VHS tapes, digital cameras and handheld devices. Then you add professional effects (effects, filters, transition, titles, music and much more) and output to tape, mobile devices, e-mail or share online. You can create DVDs with menu backgrounds, layout buttons, audio and more. Additional editing tools allow you to fix and enhance video with auto color and tone, smooth out shaky hand-held video, clean up grainy low-light video, and create instant movie intros. You can also take your movies with you on your iPod, PSP, Zune and mobile phone or upload directly to YouTube. If you want, you can also combine your digital phones to create a slideshow on DVD. Good for both first-time users and more experienced editors because it combines ease of use with powerful features! (Works with Vista). You can download a 30-day, fully functional trial edition.

INTERACTIVE ENTERTAINMENT SYSTEMS FOR LEARNING

Interactive entertainment systems are a very important way that children, teenagers and adults of all ages interact with their siblings, family and friends. The most powerful applications are cooperative play, social, recreational and whole body interactivity. They are also great for language (following a story line, sequencing, etc.), fine motor and gross motor skills, timing and coordination.

Mario and Sonic at the Olympic Games (Sega: www.sega.com) Two favorites, Mario and Sonic, are together in this new program for Wii. Players can compete as or against a range of familiar characters including Mario, Sonic, Luigi, and many more. Set at the Olympics, up to four players can play at 20 real Olympic sports events, including track and field, swimming, archery, skeet shooting, tennis, gymnastics and more, all while competing for the Olympic gold medal. All of these contests

use motion-based controls; some require both the Nunchuk and the Remote while others require only the Remote. Graphics and visuals are excellent. This is great fun for everyone. (Also available for the Nintendo DS).

Mario Kart for Wii (Nintendo: www.nintendo.com) Here's a great new Wii game with appeal for all ages. The Wii Remote snaps into the included steering wheel, which is then used to race your kart, motorcycle or dirt bike. You can also use the Wii Remote with Nunchuk, Classic Controller, or GameCube Controller as well. Players can race as their favorite Nintendo character, or even as their personalized Mii characters and can even see other Mii characters they have created cheering from the sidelines as they race. Along the way, during the race, players will find old and new items (mushrooms, shells, thunder clouds) and more to pick up or avoid. They can play with up to three players in their living room or challenge up to 11 opponents via Nintendo Wi-Fi. Great choice for family fun.

Thrillville Off The Rails for the Wii and DS (LucasArts: www.lucasarts.com) This is great fun, on both the Wii and the DS. Players build and ride their own roller coasters. It's full of thrill rides, in 15 theme areas. They can also play mini-games. In the Wii version, there are 34 new and classic carnival and arcade games, like bumper cars, go karts, mini golf, monster trucks, trampoline, pool, etc. You can follow the story with over 100 missions, while also interacting and talking with park guests. The Wii Remote is used to both build the roller coasters and play the games. The DS version is different and unique. It uses the stylus in innovative ways to develop the coasters and to play the seven mini-games, such as air hockey, fishing, and putting and to socialize with the other park guests. Great fun for ages 8 and up.

Game Party for Wii (Midway: www.midway.com) This is a collection of classic skill games, including table hockey, darts, skill ball, hoop shoot, ping cup, shuffleboard and trivia. Play with the Wii Remote with up to four players, and 175 unique characters. Great fun for the family. Also from Midway, Cruis'n for Wii lets you use the Wii Remote to steer and race your car through twelve different street circuits with a variety of different cars.

Sega Bass Fishing (Sega: www.sega.com) Out for a day on the lake and the bass are plentiful and biting! Using the Wii Remote, players can motor out, choose from 20 types

of lures, four types of bass, choose time of day and year, then catch and reel in a prized catch with the Nunchuk. There are four modes of play, including Arcade, Tournament, Practice and Nature Trip. A simple flick of the wrist casts the line. You can use A or B buttons to reel in the line or flick the Remote for a quick pull upwards. Moving the Remote to the left or right of the screen moves your rod, while tilting it up or down changes the tension on the line. This is a terrific way to have fun with the Wii and with family and friends of all ages. **Fish Tycoon DS** (Majesco Entertainment: www.majescoentertainment.com) This is an aquarium simulation where you raise fish in real-time. At the beginning, you have a tank, fish food, a batch of fish eggs, some growth hormone to accelerate growth, and $350. You can buy things like vitamins, decorations for your tank, medicine, and other things. Control is almost completely with the stylus, by tapping and dragging.

For older players: **Ben 10: Protector of the Earth for Wii and DS** (D3 Publisher: www.d3publisher.us) In this TV-based game, players take control of the Omnitrix (the alien control box) and play as five different alien heroes from the show and try to save the world. Players can challenge friends in one mode or play together in two-player co-op mode. Basic reading ability is needed to fully interact with the game. The DS version uses the stylus and touch screen for controls and the Wii version uses the Wii Remote settings and movements. Rated E 10+. **Super Smash Brothers Brawl for Wii** (Nintendo: www.nintendo.com) This new Mario hit can be played by one to four players, and also with others over the Internet. With a cast of characters from all over the Nintendo universe (35 in all), the game can be played any way you like – Wii Remote and Nunchuck, Wii Remote alone, Classic Controller, and GameCube Controller. Though primarily a multiplayer game, it has a single-player mode as well. Rated T – ages 13 and above.

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) ∎

Getting Started Gets FASTER

A Tour of Velocity's Setup Tools, and How You Can Get AAC Systems to Communicators More Quickly

By Christine Scally

Moving an AAC system from the packing box to the person who needs it can take a long time. Personalized content must be added. Time is spent determining, organizing, and programming that content. Often, all those tasks must wait while support personnel are trained.

When the device is finally handed over, the augmented communicator needs to learn how to operate it. This process varies in length and complexity, depending on the needs and skills of the learner. An adolescent or adult with solid literacy skills may need to learn specifics of their device, including the access features, word prediction system and location of vocabulary and phrases. Other new device users may be learning not only operational features, but linguistic strategies for combining words and phrases and using them to communicate. While the communicator develops proficiency with the system, opportunities for interaction pass them by.

With Velocity for Speaking Dynamically Pro, you skip all of this and move straight to interaction. It takes about 30 minutes to personalize Velocity's content for a new child, and, depending on his or her experience and ability, multi-turn peer interactions are possible within the first week. Three tools are key to the process: the Board Wizard, standardized introductory content, and initial lesson plans.

Velocity SDPro is designed for school-aged communicators. It is available for any MAC or PC computer or AAC device that will run Boardmaker with Speaking Dynamically Pro V. 6 (including the DynaVox V series). If you are providing services for adult clients, or are already employing an AAC system that cannot run SDPro, you can create similar getting-started tools and materials. This article describes each of Velocity's start-up tools and provides instructions for creating your own.

THE VELOCITY BOARD WIZARD

The primary tool in the Velocity SDPro setup process is the Board Wizard. The wizard is completed by typing answers to a series of 36 questions that are presented on-screen, one at a time. It takes about

Board Wizard set up – family information.

Board Wizard set up – entering favorites information.

10 minutes to answer all the questions, and requires no prior training or AAC experience.

Compare the communication displays shown in Figures 3 and 4. Figure 3 shows the Velocity "Favorites" screen before running the Board Wizard. Figure 4 shows the same screen after. The amount and complexity of the content on this screen has been adjusted, based on the answers provided in the wizard. The Favorites board is only one example. Velocity uses the information from the completed wizard to fill in button content throughout the system and make automatic content adjustments throughout the year.

Once the wizard is complete, a child is able to say her name, talk about her family, and tell someone her favorite color, food, and TV show. If her birthday is less than a month away, she will be able to tell her friends when it is and plan her party with her mom. Afterwards, she will be able to talk about the party and describe her gifts.

The wizard quickly and easily takes care of the personalized programming that can delay, sometimes for weeks, the delivery of a child's AAC device, and eliminates the need for time consuming content adjustments throughout the year.

The Velocity Board Wizard is not easily replicated. But if Velocity is not an option for you or your clients, it is possible to simplify the addition of user-specific content for any AAC system by creating pre-programmed pages for personal information.

CREATING PAGES FOR PERSONAL INFORMATION

Personal information is not passed out randomly in conversation. We tend to express information about ourselves in two types of conversations. In some situations, like making an appointment or paying a bill on the phone, we are required to provide a series of short statements about ourselves in an order determined by our conversation partner or interviewer. A single communication display can be created which provides this information in discreet chunks that can be expressed to the interviewer upon request. The generic version of the display may contain the necessary page links, a few simple clarifying remarks and a series of numbered buttons, with or without picture symbols, indicating where the user-specific information should go.

In conversations with new acquaintances, we also provide information about ourselves, but we do it in a less formal and more reciprocal fashion. We may provide our first and last name or just the name we

A communication display of a conversation in which both partners volunteer information about themselves and ask questions of their communication partner.
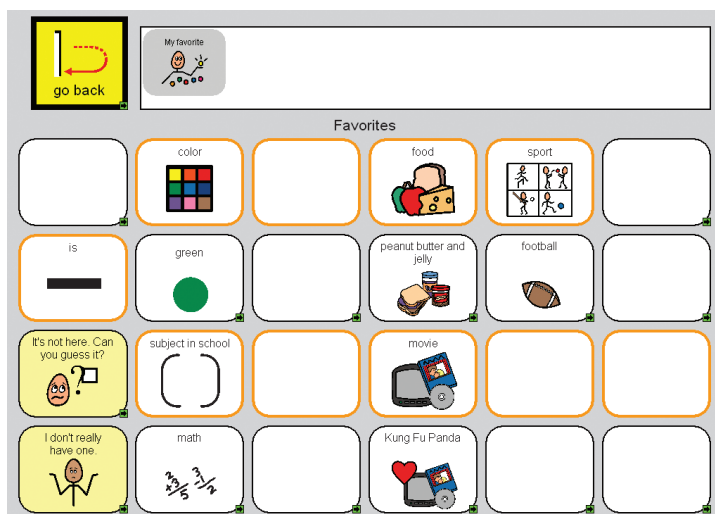
Velocity "Favorites" screen before running the Board Wizard.
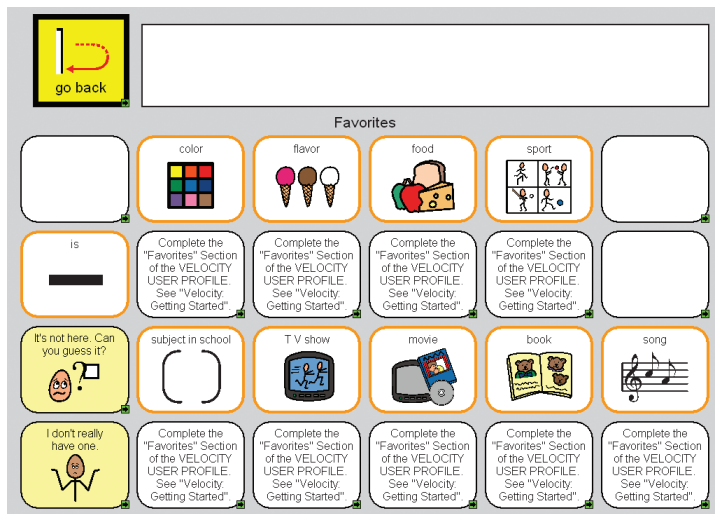
Same screen as above – after running the Board Wizard.

Section One:
Answer the following questions about the person using the device. Enter the answer as the spoken message on the communication button(s) described in parentheses.

1. What is his or her first name?
    Enter on Page: "Identification," Button #: 1 (Identification, 1)

6. What is his or her daytime phone number?
    (Identification, 6)

Section Two:
Complete the following sentences.
Enter the entire sentence as the spoken message on the communication button described in parentheses.

13. I am _____ years old.
    (Meeting Someone New, 1)

16. I am in _____ grade.
    (Meeting Someone New, 4)

Excerpts from a personal information questionnaire.

Simon Says content from Velocity.

VELOCITY'S INTRODUCTORY CONTENT AND LESSON PLANS

Velocity provides phrase-based communication content arranged by context. Utterances required for communicating in a specific activity or situation are arranged on a single communication page. The contexts range in complexity and need for personalized vocabulary. Three of the "situation pages": Telling Jokes, Simon Says, and Guess Who , provide highly structured and standardized content specifically for use during a child's first weeks with the device. Using this content, a student can begin to learn the access features, content and organization of his or her AAC system while engaging in age-appropriate high-interest interactions. The activities chosen encourage multiple turn peer interaction and provide enough structure to promote early success.

The figures to the right show the Simon Says content from Velocity. The Body Parts PopUp opens automatically when the sentence starter, "Touch your," or "Wiggle your," is selected, and closes automatically when a body part is selected.

Velocity includes 15 lesson plans. The lessons that correspond to Telling Jokes, Simon Says, and Guess Who help the augmented communicator's support team focus on interaction by reducing the initial time spent on staff training and material development. The lessons can be used, without prior training or AAC experience, by any adult who will be talking with the child, or supporting the child's communication instruction (SLP, OT, teacher, parent, assistant, Girl Scout leader etc.).

Each lesson plan is structured in three sections. The first section requires that teacher and student explore the screen together to find vocabulary and build utterances. The second section provides a
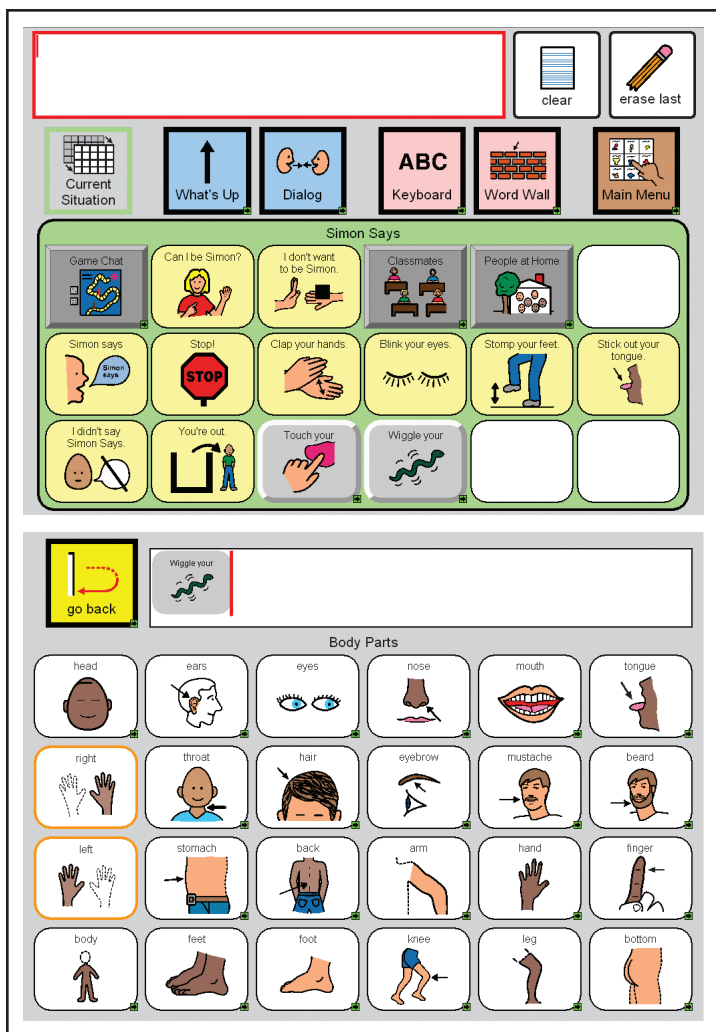
commonly go by. A child might say what grade he is in. An adult might say where she works. Unlike the more formal situation, in which the conversation is organized by an interviewer and information flows in only one direction, in this type of conversation both partners volunteer information about themselves and ask questions of their communication partner. The numbered buttons are ready for user-specific information. Above each of these buttons, the reciprocal question has already been programmed, as have appropriate general comments and necessary page links.

Once the generic communication screens have been designed and programmed, a questionnaire should be created which asks for the augmented communicators personal information and indicates the screen and button on which each answer should be programmed. It may be necessary to indicate whether the answer should be framed as a single word response or a complete sentence.

Some communicator-specific vocabulary items, like names of family members, friends, classmates, and coworkers, come up in a variety of conversations. These items should be programmed in a way that makes them accessible as needed. In Velocity, names are located on PopUps organized by place, i.e. "people at home," "people at school," etc. These PopUps can be accessed directly from any appropriate screen, and from the word wall (Velocity's semantic dictionary). A similar strategy can be applied to any device.

A portion of the Simon Says script .

A content screen for "Watching Home Decorating Shows."
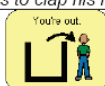
script using the content in a conversation. This provides practice for the device user, and helps both partners understand how the content can be used during interaction. (A portion of the Simon Says script is shown on page 20.) The third section provides assignments for using the content in increasingly less structured situations, including supported and unsupported interactions with peers.

CREATING INTRODUCTORY CONTENT AND LESSON PLANS

Regardless of your client base or the devices you use, you can develop standardized content and provide it to your augmented communication clients during their getting-started phase. Even if the system will be word prediction or core vocabulary centered, developing one or two phrase-based content screens can provide the device user with interaction opportunities while they begin learning their system.

When choosing situations to develop as standard content screens, remember: high interest, high structure, low risk. It should be easy to create a successful interaction with the content, but there should be very little penalty if the conversation goes awry. The content should center on an activity that is easily recognizable to most people, and that occurs frequently or can be made to occur frequently.

Telling jokes is a conversation that works well for people of all ages. Board games and circle games (like Simon Says) work well for children, because the language is constrained by the activity, and the device user can control the pace of the interaction.

Games for teenagers and adults are often linguistically open-ended and fast paced, so they can be difficult as initial contexts. Television shows, however, especially televised sports or genre shows (home improvement, makeover, cooking etc.) often work well. The vocabulary

needed to talk about the show is limited and will, for the most part, apply to any show of the same genre. Commercial breaks provide opportunities for slower paced commenting and it is generally easy to get others to join in the activity and interaction on a daily or weekly basis. Each of the squares with a green border and arrow contains a sentence starter and opens a PopUp with vocabulary choices (such as emotions or parts of a house) for completing that sentence.

Once the content is developed, creating the lesson plan follows simply. Use the examples from Velocity as your model. First, create a list of 10 utterances that can be expressed using the standard content. Second, create a script for a sample interaction that lasts at least six turn exchanges. You may wish to include pictures or diagrams to help the augmented communicator follow his or her part. Finally, describe two or three trial situations in which the content can be used with support staff, family members and peers.

Developing and programming this content and creating the instructional materials requires time and effort, but once created for the first client, these tools will become your standard method and materials for transitioning clients to their devices. You will be able to initiate services with new clients, confident that they will begin using their devices quickly and that their initial AAC experiences will be successful and enjoyable.

ABOUT THE AUTHOR

Christine Scally M. A. CCC-SLP has worked in AAC for over 15 years, providing language therapy, assessment, device selection, technical support and instruction for augmented communicators and their families, teachers, and clinicians. She is the author of Velocity, and has spoken at several national conferences including Closing the Gap. She currently works as an AAC content and interface designer, and consults with researchers, clinicians, and manufacturers. She lives in Knoxville, TN.

PRODUCT INFORMATION

Velocity for Speaking Dynamically Pro is an intuitive and compre-hensive communication software designed for school-aged children. It requires Boardmaker with Speaking Dynamically Pro V. 6 and is avail-able for both Mac and Windows. $350. ■

ICATER and MAT Lab:
Implementing Innovative Assistive Technology Training in a Pre-service Teacher Education Program

By James R. Stachowiak and John Achrazoglou

INTRODUCTION

There are many well-documented barriers to student assistive technology (AT) usage in the classroom. One not often addressed barrier can be the teacher's lack of awareness, comfort and experience with AT. This often stems from limited to no exposure to AT at a pre-service level. With mainstreaming and inclusion becoming more prominent in schools, this problem is increasing. General education teachers are now likely to work with students with disabilities who would benefit from using AT. Yet, these teachers lack the background, experience, or comfort with AT to successfully incorporate or support AT usage in their classrooms. Using innovative methods to incorporate AT education via lectures, hands-on projects, and other learning opportunities into a pre-service College of Education setting and providing professional development opportunities, the Iowa Center for Assistive Technology Education and Research (ICATER) at the University of Iowa is striving to reduce this significant barrier to AT access.

In 2006, the College of Education at the University of Iowa opened ICATER with a mandate to improve AT usage in schools across Iowa by providing pre-service AT awareness and training to all COE students, which includes general and special education teachers, administrators, psychologists, and counselors. With the opening of ICATER, the UI College of Education became one of the first to stress AT awareness and training at a general education pre-service level. Initially, ICATER had difficulty incorporating AT education into the College of Education because, due to credit and class requirements already in place for those in the teacher education

program, creating a required AT class was not an option. (ICATER has created an online Introduction to AT class that students can elect to take, but is not required.) These constraints led to ICATER's decision to take an innovative approach to pre-service AT training.

To reach everyone in the College without the benefit of a required class, ICATER worked with the faculty to create a series of AT-based lectures to be given by ICATER employees tailored for a variety of courses in general

> **"The development of the MAT Lab has been recognized on a national level as an innovative and effective way to introduce future teachers to AT."**

education, special education, and counseling, as well as foundations and methods classes in all teacher education subject areas. These lectures build upon each other and allow ICATER to reiterate the importance of AT to students throughout their College of Education career. Topics covered in these lectures include an introduction of the concept of AT, history and laws that have framed AT usage in education, specific types of AT that are commonly used in school settings, where AT fits in and how to write it into an IEP, the

school's and the teacher's responsibilities when AT is written into the IEP, who should be on an AT assessment team, and how to properly assess a student for AT usage. Although early assessments of ICATER efforts showed better student awareness of and knowledge about AT, it was felt a hands-on encounter with AT would give students a more authentic and in-depth appreciation of how AT works, as well as a better understanding of some of the hurdles AT users may encounter.

METHODS AND STRATEGIES

The conviction to create and implement a hands-on AT project led ICATER to partner with Technology in the Classroom, a required class for all teacher education students typically taken early in a student's program of study. The course enrolls 150 students per semester and is taught by teaching assistants in sections of fifteen students. The goal of the course is to teach best practices of using technology in K-12 classrooms, in particular those supporting inquiry and problem solving strategies. To advance assistive technology throughout the teacher education program, it made sense to use this early foundation class so students could build on their AT experience in later classes and field experiences.

Jim Stachowiak, ATP, the ICATER coordinator, John Achrazoglou, PhD, the faculty member in charge of the technology course, and Wayne Kintz, the coordinator of the College's technical support worked together to develop a lesson plan for the AT project and iron out curricular and technical issues on revising the course and delivering a meaningful AT experience to students. Brief surveys of students, faculty, practicing teachers, and employers initially confirmed overriding support to make AT a larger part of the repertoire of technical skills teachers bring to classrooms. Plans to increase emphasis on AT and establish new AT related artifacts on student electronic

portfolios were also approved by the College's Teacher Education Oversight Committee and the Iowa Department of Education.

Prior to ICATER's opening, AT was addressed briefly in Technology in the Classroom as a topic that one group explored and presented on in a group inquiry project. In order for the AT project to fit into the syllabus, AT was removed as a group inquiry project and it was melded into the video production part of the course that previously entailed students creating an instructional video on a topic of their choice. The lesson plan developed for the new AT project begins with ICATER providing a lecture to the class, introducing and discussing the AT devices and software that the class will be exploring. Following the lecture, the class is divided into five groups, with each group assigned one of the following AT categories: scan and read programs, speech recognition software, physical access aids, visual impairment aids, or universal design for learning technologies.

Each group schedules time outside of class to meet with an ICATER employee for an in-depth demonstration of the basic func-tions of the products in their assigned AT category. The group then checks out a computer containing that technology from ICATER's Mobile Assistive Technology (MAT) Lab. Over the next two weeks, the students explore and experience their assigned AT. Students are encouraged to think about how the AT would benefit different types of students, as well as potential difficulties that could be encountered when using the AT, and how they, as teachers, could best support students' AT needs. While exploring the AT, they also create a demonstration that they present to the rest of the class. The students videotape and edit their demonstration and this video and a short reflective essay are ultimately uploaded to electronic portfolios as performance indicators for standards related to Technology and Diversity. The goal of these demonstrations is that each student in the class will have in depth experience with one type of AT and a broad introduction to the four other

MAT LAB

During the initial pilot testing of this project, students visited ICATER's stationary lab to work with their assigned AT and through this, a number of technical difficulties were revealed. Security measures employed on student lab computers conflicted with the operations of some AT applications. For example, the user profiles and personal settings that some AT programs use or generate were often modified, relocated or deleted by security measures when the computer was restarted. In other cases, certain AT titles, in this case, speech recognition software and a screen magnifier, conflicted with each other's operation and rendered both programs unusable. It quickly became clear that using general purpose, centrally managed desktop computers in student labs was going to present a host of technical problems. Also, with the number of students participating in the class, space and time constraints of ICATER's lab did not allow students to spend as much time as necessary learning their assigned AT. In order to better control the technical aspects and resolve many of the logistical conflicts, through student technology fee funding, ICATER created a Mobile Assistive Technology (MAT) Lab of computers dedicated to AT.

MAT Lab consists of 16 laptop computers, each with a theme based on AT commonly used by K-12 students. These themes are Speech Recognition Software, Computer Access for Visual Impairments, Alternative Mouse and Keyboard Options, Scan and Read Software, and Universal Design for Learning Tools. Each computer designated as one of these themes is loaded with software and hardware that fits the theme. ICATER does not endorse products, so to avoid showing favoritism and to give students opportunities to compare, multiple products from the same category are available on each computer.

MAT Lab's creation has allowed for the smooth implementation of the AT project into Technology in the Classroom. Removing the time and space constraints of having to use the ICATER lab allows students to spend as much time as they'd like working with the technology in a setting conducive to their learning styles. Laptops checked out to students were crucial in delivering this student centered strategy and early observations reveal students working beyond expectations and doing more experimentation with these complex technologies.

ASSESSMENT

Since MAT Lab was created and the AT project implemented into Technology in the Classroom, ICATER has been collecting data to

determine the effectiveness of this program. Upon entering the College of Education, students take a survey establishing baseline data for understanding, experience, and comfort with AT. A post-intervention survey is administered following the AT project and a final survey is given when students graduate. Although the first group to participate in the AT project has not yet graduated, ICATER has consistently found significant improvement in students' perceived knowledge and comfort using AT from the initial survey to the survey following the AT project.

In the initial survey, students were asked if they knew how to use AT for students with physical, visual, and learning disabilities. They were also asked to rank their comfort with implementing AT into a lesson plan and classroom curriculum. Following the AT project, these same questions were asked and results for both can be seen in Table 1. Some of this drastic swing can be attributed to the survey being given immediately following the completion of the AT project. ICATER expects that when students graduate and take the survey again, responses to knowledge and comfort with AT will be slightly lower than those seen on the survey immediately following the AT project, but still significantly higher than those from the initial survey.

Success of ICATER's AT education initiative cannot solely be seen in the numbers from the surveys. Many students have shared stories about how the AT project has helped during their student teaching experience. One such example comes from a student whose AT project was on scan and read programs, which included Kurzweil 3000. During her practicum, she worked with a student with autism who teachers could not get to participate in essential class activities, such as reading and discussing articles. Teachers had tried many tactics to get him to read these articles, including taking him to quieter rooms, but nothing seemed to work. One afternoon, upon taking him into the computer lab, the student teacher saw a sign on a computer that read "Kurzweil 3000, Do Not Turn Off" (the prevailing thought being that with Kurzweil on the computer, turning it off would break the computer). Knowing how Kurzweil worked and that it could help the student, she scanned in the article and allowed the student to listen to it at his own pace. This method worked well and the classroom teachers utilized this technology with the student for the rest of the year. They were grateful for the student teacher's AT knowledge because they had had Kurzweil for a long time but no one

	Pre Intervention	Post Intervention
Physical disabilities	82% Disagreed or strongly disagreed being knowledgeable	78% Agree or strongly agree with being knowledgeable
Visual impairments	81% Disagreed or strongly disagreed being knowledgeable	74% Agree or strongly agree with being knowledgeable
Learning disabilities	78% Disagreed or strongly disagreed being knowledgeable	79% Agree or strongly agree with being knowledgeable
Comfort with implementing AT in lessons	73% Poor or very poor 17% Average	70% Good or excellent 25% Average Pre Intervention

Student responses to AT survey.

knew how to use it, thus this powerful tool was being wasted.

DISCUSSION

Although MAT Lab was originally created for use in Technology in the Classroom, its mobile nature has created new, innovative, and flexible AT learning opportunities for students at UI, as well as education professionals across the state. For UI students, MAT Lab is now available for use throughout their pre-service training, from introductory foundation courses to field experiences. To gain practical experience supporting students with disabilities and incorporating AT into a classroom, students can check out and use MAT Lab computers during their student teaching experiences. This learning opportunity builds upon what students learn early in their program, allowing ICATER in later classes to address advanced AT issues and advanced feature.

MAT Lab's mobility and versatility of programs has also provided ICATER with the capacity to extend training beyond the UI campus and take AT training directly to schools, businesses and other places in the community. With MAT Lab, ICATER can create temporary AT labs onsite to provide innovative, effective, hands-on professional development sessions. In the short time since MAT Lab has been developed, ICATER has already used it to conduct training for public and private agencies and commercial businesses, creating partnerships and advancing awareness of AT to a wider spectrum of audiences than ever envisioned.

Over the past two years, ICATER's incorporation of AT education into the pre-service curriculum in the UI College of Education has been a success. The development of the MAT Lab has been recognized on a national level as an innovative and effective way to introduce future teachers to AT. Moving into the future, ICATER plans to expand the capacity of MAT Lab to create more educational opportunities by increasing the number of computers and the software titles available on each computer. Expanding MAT Lab will allow ICATER to build upon what is already being taught in the College of Education and extend the AT project beyond the teacher education program to include administrators, psychologists, and counselors. It will also increase ICATER's capacity to provide hands-on training across the state and potentially nationally. In the end, those that benefit most will be students with disabilities whose teachers will have a better understanding of and comfort with the AT tools that will help them succeed in school.

MORE INFORMATION

For more information on the University of Iowa College of Education's ICATER , the MAT Lab, ICATER's online AT course, future ICATER trainings, or ICATER's availability for training, contact ICATER Coordinator Jim Stachowiak, ATP at 319-335-5280 or <HYPERLINK "mailto:james-stachowiak@uiowa.edu"james-stachowiak@uiowa.edu> or visit ICATER's Web site HYPERLINK "http://www.education.uiowa.edu/icater" www.education.uiowa.edu/icater. ∎

GIRL + DYNAVOX + COMPUTER = SUCCESS

BY KRISTI PETERSON AND DEBORAH SCHWANTES
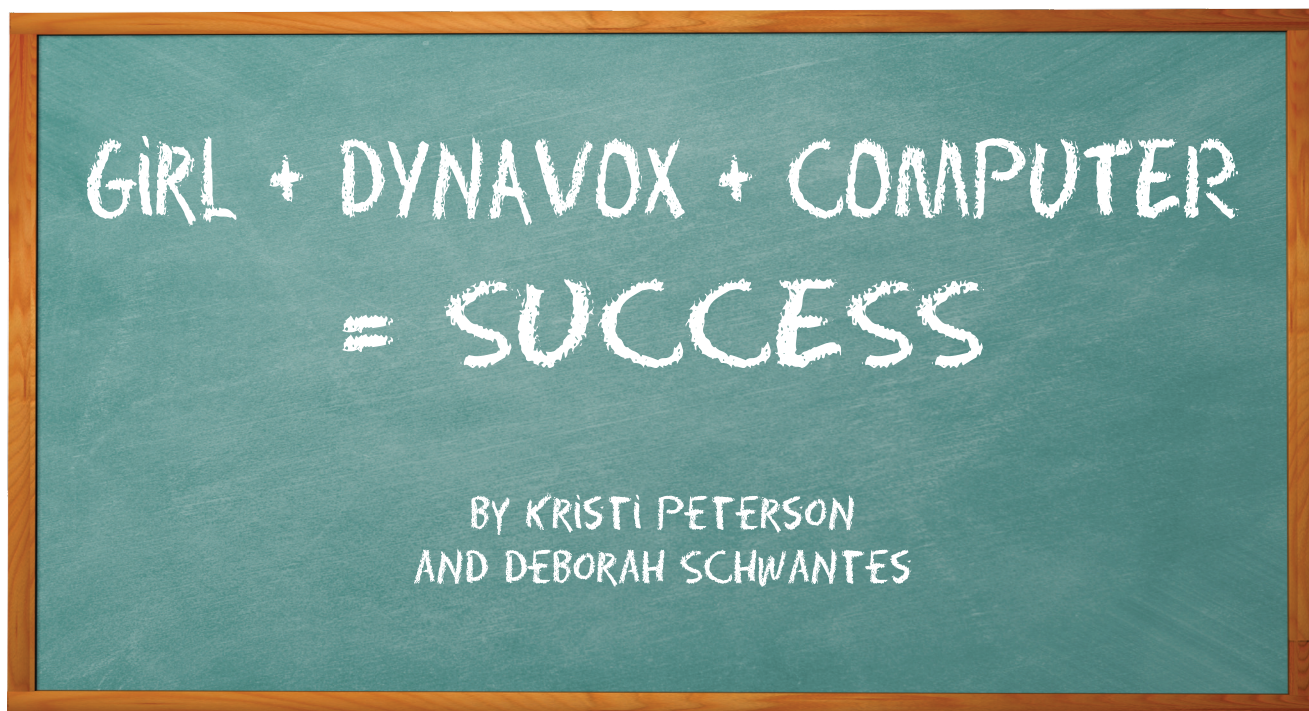
Kristi Peterson and Deb Schwantes met in February of 2002. Kristi was in Ashland Middle School at the time, Deb was (and still is) working for New Horizons North in Ashland, WI, as a community support specialist. Kristi had already owned a DynaVox Series 2 device for many years, but outside of school, she hardly used it at all. Her cerebral palsy-type disability prevents speech and severely limits her motor coordination. At home, Kristi preferred to communicate using yes and no questions or looking toward something she wanted, which was faster and easier for her and her family.

Kristi and Deb began working together primarily for community recreation and to work on living skills. At first, Kristi often did not want to bring her DynaVox along when they went out in the community. When she did use it, she used whole phrases that only required one click, and relied on pictures and symbols to know what a button would say. When she and Deb went shopping, her primary interest was children's toy learning computers. She never had much success actually accessing them, but she was very persistent and must have bought at least 10 of them those first two years.

Recipe for success:

1 Individual
1 Support network
Helping of Assistive Technology
Sprinkle of frustration
Cup of creativity
Bushel of persistence

Blend ingredients in large pot. Simmer for years.
Add other life spices to taste. Repeat.

As time went on, Kristi became gradually more interested in reading. She is not sure what sparked her interest, but Deb remembers Kristi insisting on looking at really difficult books with small print, like medical and law books (anything big in hardcover and really professional-looking). She insisted on taking SAT and ACT prep books out of the library many times, and liked to try to work on math workbooks with lots of arithmetic problems in them. She really wanted to learn a lot and do what other kids in school were doing. She and Deb spent a lot of their time in the library looking at these or using the computer. Kristi started wanting to put together word books for communication. She and Deb would look through clipart on the library computer and Kristi would pick the images she wanted. Then, after printing them, they would put them together into a binder that Kristi and a helper could flip through to find a word Kristi wanted. While creating one of these word books, Kristi insisted on putting all of the letters of the alphabet into one. That was the beginning of Kristi's interest in spelling. When trying to pick a word, Kristi would indicate the first letter of the word and the guessing game would continue from there.
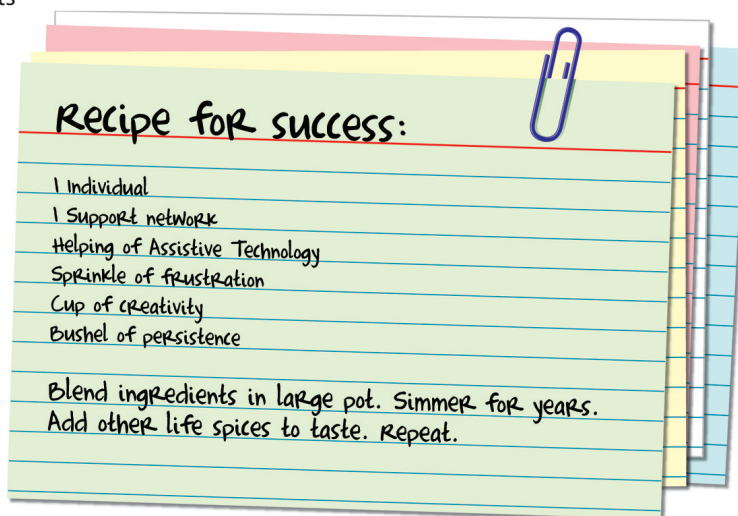
This sometimes worked, but sometimes didn't. It was frustrating to the helper, trying to guess (especially when Kristi misidentified the first letter) and was time-consuming, but it was important to Kristi. In retrospect, it was an important step in Kristi's learning development. Throughout this time period, Kristi was still very interested in young children's learning toys and shows, especially Blue's Clues.

In December of 2004, for Christmas, Kristi got her own PC at home. This was VERY exciting for Kristi. She didn't waste much time finding a way to be independent with her new computer. Deb helped find and order a switch interface and screen scanning software (cross scanner). With this, Kristi was able to independently click any place on the screen. She spent a lot of time playing I Spy and Putt Putt games, which were her favorites, for almost the whole first year.

In February of 2005, Kristi got a brand new DynaVox – a Series 4. Kristi and Deb went all out learning about the new device. They created new page sets for Kristi and Kristi spent many hours exploring all of the pages that came with the new device (there are many). She tried to learn words from the preprogrammed pages, by saying them to learn what they were, and looked through dictionaries to figure out how to use them and what was in there. She still used a lot of preprogrammed phrases (Deb set up custom pages for her that were very similar to the ones she had on her older device), but also looked through dictionaries a lot to find words to add in. Kristi started to ask Deb for buttons that had words but not pictures – so that she could use and practice her developing reading skills.

Kristi's skill in navigating her new DynaVox grew fast. Programming links between pages and new pages was an ongoing team effort between Deb and Kristi. Kristi often conveyed to Deb certain things that she wanted programmed in, and Deb did her best to accomplish what Kristi had in mind. Kristi began putting together lots of words from all different pages in her DynaVox to form thoughts and messages. At school, she was encouraged to send e-mails to others, partly as writing practice. Two of the e-mails she sent Deb that year were great examples of her growing skill: "Deb fix my TV bedroom house help Andy angry" and "Fix my computer please mouse make round yellow." Both these messages, while far from grammatically correct, required a lot of thought and work on Kristi's part to put together and made perfect sense to Deb, who knew the context.

In the spring of 2005, Deb programmed the remote control functions for Kristi's TV and VCR into her DynaVox so that Kristi could control them. Kristi was thrilled to be able to control everything independently. At this point in time, there was no going back – Kristi wanted her DynaVox on all the time except when using her computer with another input method. With it on all the time, it was always available for anything that she wanted to say at any moment.

In November of 2005, Kristi got Internet access on her computer. All of a sudden she had a whole new world to explore! She gradually learned how to go to Web sites she liked, like the Disney Channel and PBS, and shopping sites like Amazon, where she was able to create a Christmas wish list. Deb helped program Kristi's favorite sites into taskbars, and Kristi learned how to add a site to her favorites so she could find it again. She also started using e-mail more, and learned how to use it independently (previously her teachers had simply copied her dictation into emails and sent them for her). Kristi also started learning how to use search engines and created MySpace and Facebook pages for social networking and to keep in touch with friends and family. Having Internet access made learning to read more important to Kristi, and caused her to spend a lot more time each day around words.
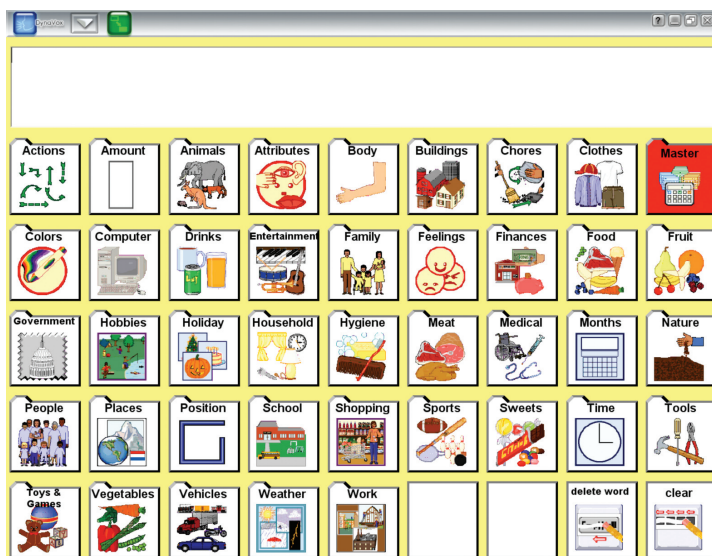
Kristi's main dictionary page.
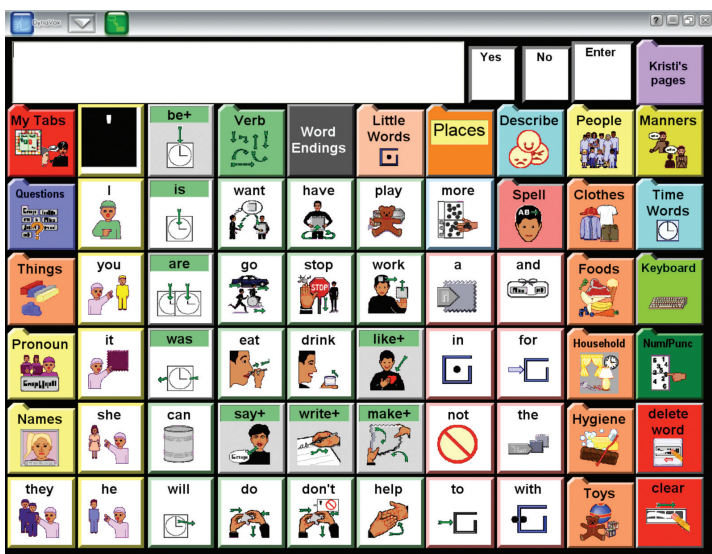
Kristi's sentence building page set (called Gateway 60).
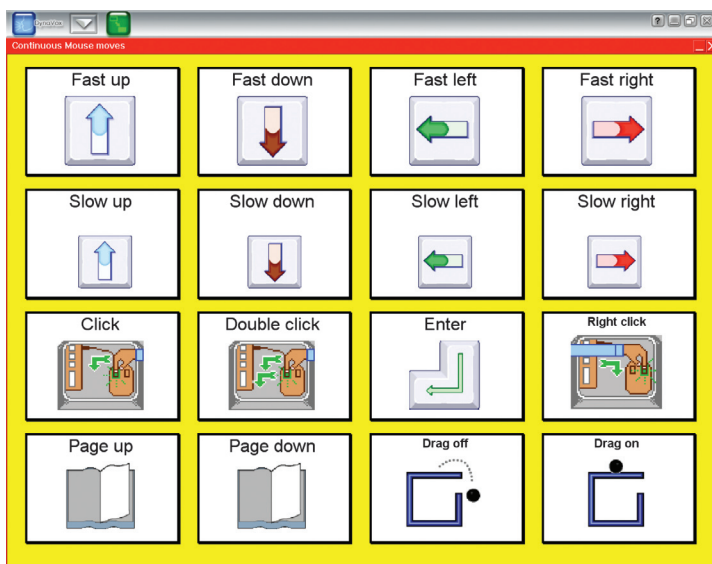
Kristi's mouse control page.

In April 2006, Kristi got an AccessIT so that she could control her computer through her DynaVox. This allowed her the ability to more easily enter words into her computer and also be able to keep her DynaVox on for communication while using the computer too. Deb programmed mouse and keyboard controls into the DynaVox, but moving the mouse around seemed easier with the cross scanner, so sometimes Kristi still used that instead. Kristi and Deb worked together many hours to create and program DynaVox pages for using the Internet and DVD and music player on her computer, and Kristi continually asked for any modifications that she felt were needed. They also programmed in all the usernames and passwords, URLs and e-mail addresses that Kristi needed to use.

In October 2006, Kristi started bringing her AccessIT to school. Deb visited her classroom to show Kristi's teacher and aide how it worked, and, for the first time, Kristi was able to use regular computer programs and Internet at school independently.

Now that Kristi was growing more confident in the use of her DynaVox and computer, she started giving presentations. She started with a presentation to the technology club at school. She also went on a trip to the state capitol and spoke to her state senator and representative about issues affecting people with disabilities. She used speeches that she and Deb programmed in ahead of time. When she became president of her 4-H club, Deb programmed in a page for leading the 4-H meetings using parliamentary procedure. The next spring Kristi and Deb put together a speech with a PowerPoint presentation on the computer, and Kristi gave a presentation to the Board of Directors for New Horizons North, the company that Deb works for. She was able to give the speech and control the slide show right from her DynaVox.

Today, Kristi is 19 years old. She regularly builds five- or six-word phrases using words from different parts of her DynaVox to convey her thoughts and questions. She is also spelling more and more words. Kristi is now using a page set designed for sentence building to create her own 'sentences' (usually complete in thought but not grammar) and not be limited to the sentences that are programmed in already. Several months ago Kristi managed to point out to Deb that the
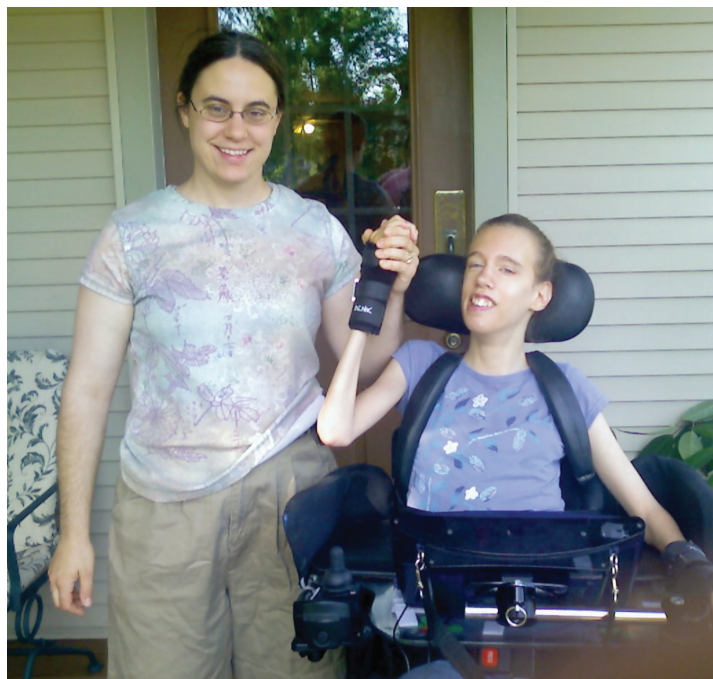
Deb and Kristi.
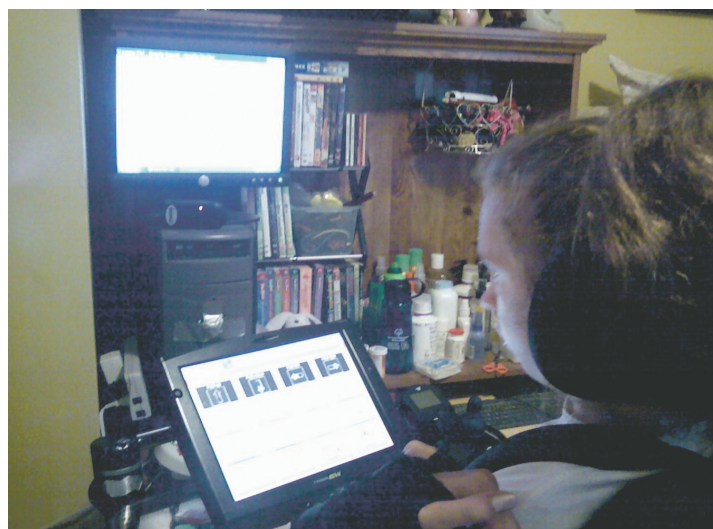
Kristi at home on her computer.
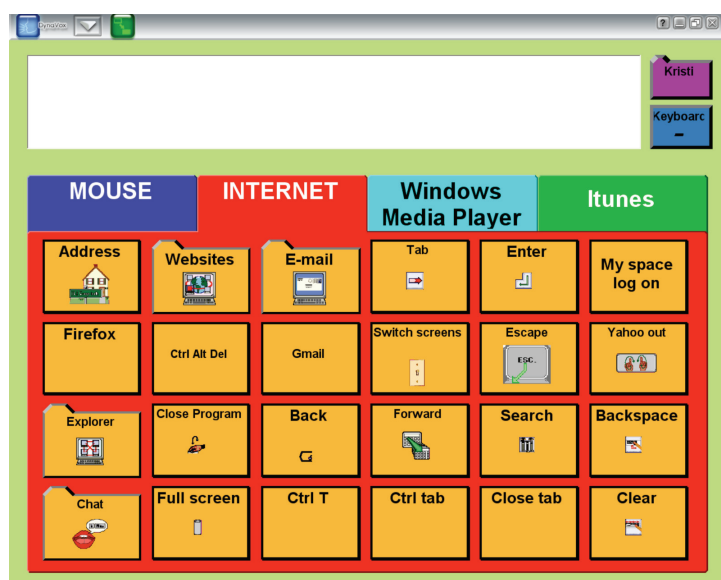
Kristi's main Internet page.

continuous mouse movements available for computer control on the DynaVox could, in fact, be used with single switch scanning. Deb promptly reworked Kristi's mouse control pages and Kristi is finally happy that she has found the best way to control her computer. The cross scanner has been retired and Kristi uses her DynaVox from the time she gets up in the morning till she goes to bed at night.

Kristi has also begun instant messaging, text messaging, and has dabbled a little bit in making phone calls from her computer (usually calling Deb). She loves to IM and text message her family members and friends who are no longer nearby. She had Deb come to school during a unit on telecommunications and together they showed the teachers and the rest of the class how Kristi is able to IM and text, and explained the computer phone software as well.

Kristi's biggest goal for her technology is to develop a better ability to use the phone. When asked what she would like to see created next, she said "cell phone DynaVox". She and Deb dream of a DynaVox-type device able to connect to and control functions of a cell phone (maybe via Bluetooth).

It is hard to say exactly what the factors were that helped the pieces of technology fall into place for Kristi. Certainly a big part of it is Kristi's own motivation and persistence. For example, if Kristi had not insisted on continuing to buy one toy computer after another, her family may not have realized the importance of Kristi getting a real computer. Also, nobody is sure what precipitated Kristi using her original DynaVox more in everyday life. Some of it could have been Deb's encouragement and enthusiasm for it. Kristi says it was just having the DynaVox. She thinks early on the switch activation and scanning was harder for her. She's not sure why it got easier – but Deb thinks it was from using it more. What they do know is that the biggest part of Kristi's progress was having her technology there all the time available for use – and also the support of all those around Kristi and Kristi's persistence and desire to make herself understood.

Kristi's teacher, Jennifer Zienty, has communicated with Deb through the years to keep the DynaVox programming consistent. She says "I remember, years ago, we were considering whether the DynaVox was an effective device for her because she was not using grammatically correct sentences. We thought something simpler might be better. But some of us pushed to keep on with the DynaVox

and I'm glad we did … with support to get her important stuff on the DynaVox, and her ability to move around on the DynaVox to find what she needs, she is able to 'say' a lot to family and friends."

At school, Kristi's DynaVox enables her to communicate and participate in lessons with her classmates. It also offers other benefits, such as the ability to use a calculator with switch scanning to complete word problems and money counting. In the community, Kristi is able to order at restaurants, say what she would like to do and where she would like to go, and ask and answer questions. No matter where she is, if Kristi has any type of medical problem or discomfort, she can let someone know exactly what it is. At home, Kristi can independently control the TVs, VCR, DVD player, the fan in her room, and her computer, all of which gives her the ability to independently manage and entertain herself. On the computer, using her DynaVox and Internet connection, Kristi can even communicate with people who are not present via e-mail, instant messaging, text messaging, and phone calls.

Kristi, Deb and Kristi's mom all agree that the best (favorite) part of the technology is her independence and ability to control the computer and everything that comes with it (IM, etc). They also all agree that the most important part about it is her ability to communicate the essentials, like medical problems. And all agree that Kristi's assistive technology has given her the opportunity to learn, grow, and become a confident adult.

DynaVox products can be found at www.dynavoxtech.com. ■

ADAPTATIONS
Do Not Have to Be Difficult

Part four of a four-part series

By Jen Mundl and Sue Redepenning

Assistive technology comes in many different sizes, shapes and forms. Sometimes, the accommodation is not high tech, but rather a similar product with basic features that alter a standard model. Keyboards and mice are two input devices that sometimes require accommodations. The standard keyboard and mouse may not work for many students with a disability, but there are other options on the market today that are alternatives to standard models.

It is important to remember all types of technology when starting to implement technology for a student. Many practitioners have a tendency to find complex and difficult-to-use solutions for academic, work and independence needs. Solutions are often easy to implement for the user and professional. This article will introduce the reader to low-tech solutions for keyboard and mouse alternatives. Alternatives indicate that the device is similar to a standard keyboard or mouse but has slightly different features.

ASSESSMENT PROCESS

Concrete data supporting decisions on the use of alternative keyboards and mice needs to be gathered during the assessment process. The assessment process allows the user to trial different products in a controlled environment where variables are set to be equal for each trialed product. In this initial phase, the evaluator must understand how the individual corresponds with their environment over time. Be careful because fatigue and interest can mask the results. The learning style of the individual affects the assessment process as individuals all experiment and learn to use new equipment differently.

Criteria used to determine the best mode of access are accuracy, interest, and speed. Accuracy and speed give concrete, objective and measurable information regarding the benefit of using one product over another. This information can be obtained through a typing program or game setting. It is important to make it as fun and interesting for the user as otherwise the results maybe affected. Interest is harder to assess as it is mainly observable based on ability to maintain attention, focus on task, maintain a constant work speed and an eagerness to engage in the activity.

Typing tutors and tests are interactive methods to assess the accuracy and abilities of the user. There are a variety of different software programs found on the Internet today. Some to consider include:

• Typing Master is available from download.com for a free trial. The free trial gives all the components to explore, except without the entire lessons. The user can complete the first two levels before having to purchase the full version. This program is appropriate for individuals having good concentration and reading abilities. It is a good option for adults and older children wanting to improve or learn to type. Features include interactive lessons, games, typing tests, and statistical collection of data. It is simple to use with everything labeled.

• Typing with Garfield is available from <garfield.typingpal.com/demo/>. This program is a wonderful find for kids and adults alike. Typing with Garfield comes with a variety of features making it interactive and interesting to those who explore the software. Features include ergonomics, games, interactive lessons, dictation and practice. The user picks a Garfield character at the start of the program as their teacher.

• Mavis Beacon Teaches Typing <broderbund.com> This popular typing tutor is interactive and has high quality graphics and activities. The user is introduced to the concepts of typing, games, statistical analysis, progress tests, and much more. Mavis Beacon follows the learner through the entire training program. The user must have a good reading ability. This program is for older learners.

Ergonomic modeling of the keyboard and mouse needs to be in place for the user to have their best experience with new products. Ergonomics is the study of how one's environment affects their ability to perform tasks in a productive, and health promoting fashion. The evaluator must understand the importance of ergonomics and be aware of common practices. Some things to consider include:

• Elbows at 90 degree or greater angle. It is better to reach down to the keyboard than to reach upward.
• Feet flat on the floor or supported on a footstool.
• Wrists in neutral position.
• Eyes are looking 1/3 the distance from the top of the monitor.
• Good supportive chair with lumbar support.

It is recognized that in a school environment, ergonomics are harder to follow due to the lack of equipment. Regardless, students need to be aware of how their body positions affect their ability to keyboard effectively.

KEYBOARDS

Evoluent Keyboard is a left-handed light touch keyboard that is mouse friendly. Because the number pad is on the left, it gives more room for the mouse to be placed on the right. The individual does not have to reach as far for their mouse. The keys take less pressure to press, making it easier for individuals with repetitive stress injuries, as well as those with limited strength.

PC Mini Compact Keyboard is a small keyboard for the Macintosh or PC computer. It is a straight USB plug that works on either computer by just plugging it into the system. Many people are looking for a one-handed keyboard that works for their consumer. More and more, small keyboards are being used instead. This particular keyboard is approximately two thirds the size of a standard keyboard.

BAT Keyboard is a chordic keyboard that operates similar to playing a piano. Basically, the user presses several keys at one time to make a keystroke. It is a one-handed keyboard that needs to be matched to the left or right hand. There are three buttons for the thumb while the other four fingers have a constant key to hit.

Maltron is a large ergonomic keyboard that can be customized for two hands, one hand or mouthstick configurations. The keys are placed strategically based on hand placement so that the user can greatly increase their speed by the new layout.

Maxim Keyboard is a compact split ergonomic keyboard with low force keys that splits into two sections in the middle, allowing the sections to be adjusted horizontally and vertically.

Gold Touch Keyboard is a split keyboard that can be easily adjusted by the user. By moving a lever, the keyboard adjusts the opening to accommodate the user's preferences in positioning. The keyboard can then be angled vertically for unusual hand positions.

IntelliKeys is a membrane large keyboard useful for students with physical limitations where accuracy is an issue. The keyboard has larger keys and a variety of overlays to choose the appropriate layout of letters and characters. There are settings for the length a key must be held down, no repeat, filtering quick keystrokes and single key typing. Further more, the mouse is activated on a variety of overlays through the use of arrows.

Dvorak Keyboard is a keyboard where the letters are rearranged in a more logical arrangement to increase productivity. They keys most frequently used are placed together to make it easy and quick to access.

Half QWERTY Keyboard is a one-handed keyboard where all they keys are placed in the standard location. If the key happens to be on the other hand, simply press the space simultaneously on the other side of the keyboard.

Big Keys is a simple keyboard with one-inch keys that can be placed alphabetically or in the standard QWERTY layout. There are two versions of this keyboard. BigKeys LX is for adults who want a full-featured keyboard, but who need large keys in order to locate and operate the keys. BigKeys LX includes all special characters found on a standard keyboard, with the exception of the numeric keypad, Scroll Lock, and Pause/Break. BigKeys Plus is for early learners and others with basic keyboard needs who would benefit from the simple keyboard layout and large keys. It has limited special keys, including the shift key, backspace key, F1-F10 keys, and some punctuation.

MICE ADAPTATIONS

Laptop mouse is a smaller mouse than normal. If you have a child or adult with a hand that cannot form over a standard mouse, it is a good idea to explore laptop mice. Best Buy and other major computer stores will have a variety of choices to consider. Also, Micro Center has online options.

Mouse Keys is a free program built into all Macintosh and Windows-based computer systems. It changes the number pad into a mouse where the keys around the number five move the mouse in various directions and the five emulates a click.

Cruise Trackpad is a unique device that allows the user to control the speed and direction of the cursor with a single, soft touch of its control ring. Settings can be saved for each user of the device to make set up a simple process.

Joysticks come in a variety of sizes and connectors. A large joystick would be the Sam Joystick from RJ Cooper, where a small joystick is available through AbleNet. Many of them work similar to wheelchair controls, making it easy for the user to operate.

Head pointers are devices that are able to recognize head movement by reflection. The user normally wears a small silver dot on their forehead to activate the head pointer.

Vertical Mouse The vertical mouse rotates the mouse from lying down to on its side. It works similar to a standard mouse with the user

needing to move the mouse and click the buttons. This ergonomic mouse allows the user to keep their arm in a natural position while using the device. There are options for right hand, left hand and wireless products.

Ergonomic 3M Mouse The unique, ergonomic vertical grip design has been clinically proven to reduce muscle strain and discomfort associated with carpal tunnel syndrome and repetitive stress injuries compared to using a traditional mouse. Enhances comfort by keeping arms and shoulders in a more relaxed, neutral position. It is the shape of a joystick where the user must move the mouse normally and press the top of the joystick to click.

TRACKBALLS

Laboratory testing has shown that only four hours of continuous mouse usage can result in as much as 60 percent loss of hand strength. However, trackballs can improve the human factor such that fatigue is not an issue. Additionally, some individuals with disabilities who cannot use a standard mouse may be able to operate this simple device. Trackballs are stationary mice where the user moves the cursor by placing their hand on a ball and lightly moving it in the direction they want the mouse to go. There are trackballs with two or four buttons allowing for clicking actions. This allows the user to move and click separately rather than together.

Evolution Mouse Trak is an industrial strength trackball good for areas that have heavy usage. It is a sturdy solution for those looking for large size trackballs. There are six programmable buttons, allowing the user to train the trackball for right click, left click, drag and other common mouse tasks.

The BIGtrack has a 3-inch trackball, which makes it the largest trackball available. The large ball requires less fine motor control than a standard trackball and it is ruggedly built. There are plug-ins for switches if the student is unable to reach the standard buttons. The colorful design makes it alluring for kids.

Kensington Expert Trackball is a large, easy-to-use trackball with four programmable buttons. The buttons are programmed through their driver software called Mouse Works. This allows the user to not only program the buttons for mouse actions, but also common computer tasks, such as closing windows or starting a program. Kensington is an international company with high quality products that require little maintenance. Kensington sells a smaller version of their trackball called the Orbit Optical Trackball.

Cordless Trackman Wheel by Logitech is a wireless trackball made for right hand usage. The user uses their thumb to move the mouse pointer while having the capability to scroll with their pointer finger and click buttons with other fingers. It is in an ergonomic design and provides a different feel compared to other products.

Fellows Micro Track Miniature Trackball is a miniature trackball with three small buttons. It is a plug and play device where the buttons cannot be programmed other than right and left click. There is no drag feature to the miniature trackball, but it requires extremely little movement to operate.

Marble Mouse by Logitech is a small trackball with two strategically positioned buttons for students needing a simple solution. The buttons are a right and left click, but through the use of the control panel, a drag feature is possible.

The Traxsys Roller Plus Trackball is available in a 2.5-inch trackball, with six buttons that support left and right click, double click, drag lock, horizontal and vertical lock and cursor speed control. A flashing light indicates the drag button has been activated. The Roller Plus products include a keyguard to help users isolate on the buttons. The Trackball comes with two different input needs, T-Bar and Soft Sponge Ball. Switches can be easily connected to emulate the mouse buttons with the Roller Plus Switch Box. There are three speeds to this trackball, which is different than their similar product called Roller II Trackball.

SUMMARY

The most important concept to remember when looking for keyboard and mice adaptations is that there are many choices to consider. Each product comes with unique features and design. The trick is to match the user with the product that is best for them.

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Cordless Trackman Wheel: www.logitech.com
Cruise Trackpad: www.ablenetinc.com
Dvorak Keyboard: www.dvorak-keyboard.com
Ergonomic 3M Mouse: www.3M.com/ergo
Evoluent Keyboard: www.evoluent.com
Evolution Mouse Trak: www.store.ergoguys.com/itacev.html
Gold Touch Keyboard: www.ergodirect.com
Half QWERTY Keyboard: www.half-qwerty.com
IntelliKeys: www.intelliTools.com
Kensington Expert Trackball: www.kensington.com
Maltron: www.maltron.com
Marble Mouse: www.logitech.com
Mavis Beacon Teaches Typing: www.broderbund.com
Maxim Keyboard: www.kinesis-ergo.com
Micro Center: www.microcenter.com
Micro Track Miniature Trackball: www.trackballworld.com/40-310.html
PC Mini Compact Keyboard www.inclusivetlc.com
R J Cooper: www.rjcooper.com
Roller Plus Trackball: www.enablemart.com
Typing Master Pro: www.download.com
Typing with Garfield: www.garfield.typingpal.com
Vertical Mouse: www.evoluent.com

ABOUT THE AUTHORS

Jen Mundl and Sue Redepenning are responsible for coordination of the Assistive Technology Program at Courage Center. Courage Center, located in Minnesota, is a non-profit outpatient rehabilitation center that also serves as a Transitional Residential Program. Courage Center serves over 11,000 people with various disabilities annually where many are in need of AT. Visit www.courage.org for more information.

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Technology for the Bi~Lingual Student

(La tecnología para el estudiante bilingüe)

By Darren Avey and Mark Ammons

Darren Avey, assistive technology specialist, and Mark Ammons, speech language pathologist, have been doing trainings at Texas Regional Service Centers, as well as the public schools, designed to provide an overview of software and technology that can be used effectively for bilingual students. A favorite software used in bi-lingual trainings is Boardmaker from Mayer Johnson www.mayerjohnson.com. It is available for $299. The focus, when using this software, is to improve vocabulary skills, word meaning, grammar, handwriting, reading comprehension, and early phonic skills, both in a Spanish and English format. The platform of Boardmaker V.6 will allow each child to view both English and Spanish simultaneously.

Mark Ammons, who works for Lufkin ISD, met with the bi-lingual director two years ago to show her some of the methods he and Mr. Avey were using in Boardmaker trainings. She purchased Boardmaker for all her bi-lingual teachers and the trainings began in the Fall of 2007.

One example of Boardmaker's use with the bi-lingual student is to introduce the vocabulary of a unit in both English and Spanish. Vocabulary would consist of word categories for food, clothing, transportation and a variety of other categories. Students could view both a picture and the word they needed to read in both English, Spanish, or English and Spanish. Lufkin ISD teachers were excited about this feature, not just to introduce word recognition, but also for labeling

Boardmaker introduces the vocabulary of a unit in both English and Spanish.

everything in their rooms in both English and Spanish. This exposes the students to both the English and Spanish vocabulary throughout the classroom.

They targeted vocabulary that they felt the student would not understand, as in the nursery rhyme Jack and Jill. Words, such a fetch, crown and pail, were all identified as needing to be clarified through the use of Boardmaker. The photo of the bucket pictured at right shows how the vocabulary was presented.

Each vocabulary word was explained on a vocabulary sheet created in Boardmaker that, in turn, was reviewed by the teacher. The teacher would say, "Let's go over some words you may not understand in this story. Another word for pail is bucket." Many vocabulary words that proved difficult for students to understand were identified and explained using this method. The results were not only a dramatic improvement in the understanding of vocabulary, but also an improvement in the students' comprehension skills for either passages the student read or had read to him by the teacher or an electronic text reader. The teachers agreed that this format greatly increased the student's comprehension. This format works with students of all ages.

An introduction to early writing skills was also introduced using Boarmaker. The student's picture was Velcroed on the left hand side of a folder and renamed the pronoun "I." Another picture representing today was also placed on the left hand side, along with pictures of what the student had been doing over the course of that week. The student would then choose "today" and place it on a Velcro strip on the right hand side of the folder. Next the student would choose "I" to complete the phrase "Today I", and then add vocabulary using pictures, such as "went to the library" or "read a book" to complete the sentence. Early reading skills were also addressed in this format. They learned to track from left to right and sequence events, skills needed for writing a short paragraph.

Boardmaker symbols were also used to help the student identify the beginning sound of words that begin with the phonemes d, s, c, and g. These phonemes were placed on a page in four separate cells. The student was then given four pictures, such as dog, soap, cat, and gum. The student would then match the picture to the correct sound by placing the picture in the Velcro square of the correct sound.

A variety of books were created to improve skills in the areas of reading, science, math, history, social studies and spelling. One example

of this was a book titled "I can count to two." The student would see a picture of two cats, with the text "2 cats" beneath the picture. The student would read the text, and then count the cats. A whole series of learning to count was done in this platform. A book for teaching verbs had 10 verbs on a sheet, and three nouns. At the top of the page was a picture of "run," indicating that a verb was an action word. The word was printed beside the picture of run. These pictures were laminated on a piece of paper and the student could circle the correct picture of verbs with a dry erasable pen. All parts of speech were taught in this format. Again, the vocabulary could be done in both English and Spanish.

In the area of language arts, students were also introduced to using pictures to identify the setting of stories and choosing the main idea in a story. Pictures really help in the understanding of a setting. Other word classes, such as homonyms, synonyms and homophones, can be introduced using Boardmaker.

One of the most fun activities is called "word for the day," in which pictures and text can be used to teach multiple meanings of single words, for example 'down':

Low in sprits, depressed – I am feeling down today.
Toward, or on the ground – He tripped and fell down.
Malfunctioning, not operating – The computer is down.
Learned, or know perfectly – I have the algebra homework down.

Sequencing

Jack and Jenny Went to the Fair
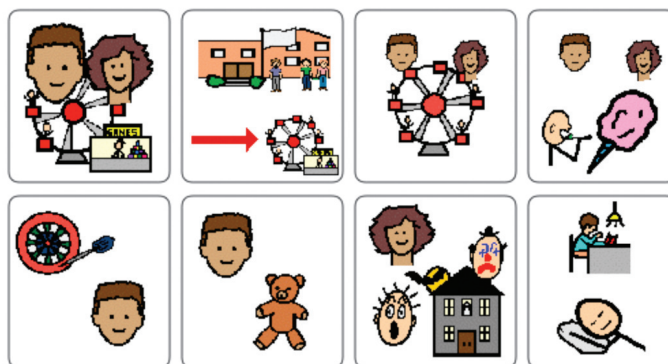
Jack and Jenny love to go to the fair. They can't wait to go to the fair after school. They love to ride the ferris wheel. They love to eat cotton candy. Jack loves to play games and win prizes. He won a teddy bear.

Jenny loves the funhouse. She likes to be scared. After the fair they went home, did their homework and went to bed.

Sequencing activities were created, giving the students a topic, such as, "Jack and Jenny went to a fair. What do you think they did? What do you think they saw?" The children then give their ideas about the story and, in turn, the story is created in Boardmaker, both in picture and text form. The pictures can then be cut out and shuffled for the students to put back into the correct order.

Mr. Avey and Mr. Ammons also pointed out the help of electronic text readers, which can read in both English and Spanish. This can be as simple as the free electronic text reader, ReadPlease, found on the Internet at ReadPlease.com, where you can download the Spanish Voices. Software programs that allow children to independently read with the use of an electronic text reader, in both English and Spanish, improve word recognition skills. (ReadPlease Plus 2003 on CD, $59.95 US + shipping, www.readplease.com)

Test Me Score Me, available from SoftTouch for $169 <www.soft-touch.com>, allows many formats, including testing. All parts of speech can be taught and tested in both English and Spanish. Testing results are scored and recorded for use in assessment. (Below)

Students could be tested with this program on vocabulary learned in subsequent Boardmaker activities in reading, math, science, and social studies. For example, the test would read the sentence to the student, "Find the one that is a noun." The test would display a picture of a dog and run. The student would click on the picture of the one he/she thinks is correct. Test Me Score Me allows you the option of using recorded speech, thus letting the test be read in both English and Spanish. The next series of questions could include "Find an action verb," "Find a helping verb," or "Find an adjective," whatever format the teacher desires.

Short stories were also created that would be read by the program, along with a series of questions, such as "In this story, who is the main character?" Or, "Another word for pail is …" The student could have as many choices as needed, but usually the pictures for bucket and

shovel would be shown. Giving the student two choices worked best in most cases.

Another favorite idea was creating a test in which the student would hear the spoken word in Spanish, such as leche. The student then would view pictures of words such as milk, water, and tea. The student would then click on the correct picture and the test will record his answer. These tests can be created in a vocabulary-type unit for testing. Some vocabulary units might include things you eat, drink or wear, furniture, colors, or a variety of units, depending upon the students' needs. This is a fun way to teach both English and Spanish, particularly for the child who is learning English.

Another valuable aspect of this testing format in Test Me Score Me is the fact that you have multiple access methods built into the test you create by simply choosing the correct access for the student once the test is created. Access features, such as scanning, two-step scanning, touch window and IntelliKeys, are all available by simply choosing the access method appropriate for the child. This is one of the best time savers for those teachers creating a test, along with a very simple format for creating the test itself.

Idioms, a sometimes difficult concept to present, can be tested by first giving the idiom, such as, "Hot under the collar," and then presenting a series of pictures to choose from, one being a picture of someone who is steaming mad. Test Me Score Me allows you to test any area you would like. It records and gives you an individual student's score and the date he/she took the test, along with the benefit of being able to record in English and Spanish.

Many concepts, including word meanings, early sound recognition, math word problems, main idea of a paragraph, answering questions about short stories, homonyms, homophones and synonyms, can all be achieved using the products mentioned in this article.

Other programs that have been helpful include Words Around Me, both in English and Spanish, and Pix Writer. Words Around Me helps with the student's receptive language, particularly in the area of labeling, while Pix Writer allows the student to work on activities

created in the program (using recorded speech for English and Spanish) in a variety of writing exercises. One of our favorites is teaching the use of single and plural helping verbs, in which the student views a palate with:

He	is	sleeping
She	are	eating
They	was	running
	were	
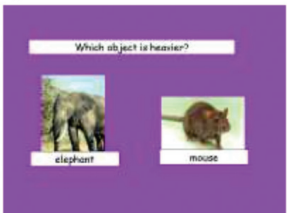
The student clicks on the correct picture to write the sentence. A great bi-product is that since each word he/she clicks on is both picture and text, the student has a much better understanding of what the word means. For example, the word "they" can be used more than once when clicking on the words to write the sentences.

These programs, and others, open up the doors of learning in a remarkable way for all students, particularly those students who are learning English as a second language.

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STUDENT: 01 Mouse Click
TEST(S): Comparing Weight
SESSION: ID:AAAID, DATE:date(2008, 3, 19) 3:21 PM
RESULTS: 2/2
QUESTION 1: ANSWER 1: RESULT

Which object is heavier? / elephant / mouse | Which object is heavier? / elephant | CORRECT

QUESTION 2: ANSWER 2: RESULT

Which object is heavier? / bird / airplane | Which object is heavier? / airplane | CORRECT

GAMING

ALL INPLAY BREAKS OUT OF CARD GENRE WITH TAG-THE ANAGRAM GAME – FREE OPEN BETA UNDERWAY NOW AT ALLINPLAY.COM

Word wizards of the world rejoice. All inPlay has announced that its fourth title, Tag-The Anagram Game, is now in open beta and playable free at allinplay.com for a limited time. With Tag, All inPlay has broadened its appeal by cracking yet another genre in accessible online multiplayer games.

"Over the years, we got a lot of requests to make some sort of word game that was also multiplayer," remarked All inPlay co-founder Paul Silva. "Tag is a great example of how you can take a simple game and transform it into an online experience that can be enjoyed by anyone, blind or sighted, whether you love word games or not." Tag expands on the basic anagram game by allowing up to eight players per table to compete in short rounds of play. Unlike All inPlay's prior titles, Tag is real-time, meaning players don't take turns. Once the round begins, everyone at the table is frantically typing as many words as they can before time runs out and the winner is announced. Then the process starts all over again with a new phrase, keeping things fresh and interesting.

On social tables, rounds last longer and players have more time to chat between rounds, while fast tables offer shorter rounds with shorter breaks, making for a finger tapping experience that doesn't let up. Three difficulty levels let players of all types find a table that's right for them. Multiple scoreboards allow for many avenues of competition beyond simple scoring.

"We wanted to create a game that was much more exciting than a simple anagram game," said All inPlay co-founder Jeremie

Spitzer. "We weren't sure whether we succeeded until we got the first feedback from our testers, who told us they were getting themselves in trouble by playing at work. At that point we knew we were on to something."

Anyone can play for free during the open beta period and newcomers to All inPlay can try the three existing games free for 15 days in addition to the open beta. To get started, browse to: www.allinplay.com. ■

RJ COOPER OFFERS 'UNIVERSAL' SWITCH-ADAPTED GAME CONTROLLER FOR XBOX, PLAY-STATION 2, AND GAMECUBE

A new switch modified controller is available now for game boxes that plug into your TV (XBox 360, XBox, PlayStation 2 and 3, GameCube).
• 'Universal' version for XBox, PlayStation 2, and GameCube
• Versions available for XBox 360 OR PlayStation 3
• Switch inputs for most important functions
• Reasonable cost
• Allows collaborative play of complex TV oriented games
• Accepts any switch as input

An able-bodied person will operate a fairly standard game controller for most of the controls. And your switch operator will control 1-2 functions of the game. Yes, it's collaborative play, not independent control, but 'half is better than none' in my book.

Keep in mind that these games usually move fairly quickly, and scanning between choices is not an option. So that means the switch user will be controlling his/her specific aspects of the game, and someone else (sibling, friend, etc.) will control all the other necessary functions. You must be selective about which *aspect* of the game the person with special needs is going to control, such as jumping, firing a weapon, etc.

The game controller is universal to XBox, PlayStation 2, and GameCube. It has five switch inputs, giving access to the four colored buttons and left trigger. ■

Shown above with Gumball Switch, attached by Stick & Suck, to my Mini-Arm. Learn more at www.rjcooper.com.

COMMUNICATION/SPEECH ----------------------------→

MACSPEECH, INC. NOW OFFERS SAMSON TECH-NOLOGIES' AIRLINE 77 WIRELESS MICROPHONE

MacSpeech, Inc.has announced a new, approved wireless microphone option for use with MacSpeech Dictate. Now for the first time, MacSpeech Dictate customers can choose an AirLine 77 wireless mic from Samson Technologies as an upgrade to the speech recognition solution's standard microphone. The AirLine 77 mic is available immediately for $349 directly from MacSpeech, Inc. at www.macspeech.com.

"Imagine using MacSpeech Dictate from nearly a football field away," explained Andrew Taylor, president and CEO of MacSpeech, Inc. "We're quite pleased to offer the AirLine 77 as a wireless mic option. MacSpeech Dictate includes an approved headset for quality input and accurate dictation results. For those who prefer a special or high-end mic, such as a freestanding desktop mic or a wireless mic, we offer several tested upgrade options directly from our Web site. We are thrilled to add the AirLine 77 wireless mic option to our line-up."

The Samsom AirLine 77 is the first UHF wireless microphone certified for use with MacSpeech Dictate, allowing customers to dictate up to 300 feet away from their Mac. AirLine 77 is Samson's newest version of the AirLine series that features the first micro-technology transmitters in the industry. AirLine 77 provides a true wireless system with no belt packs and no cables, allowing the user complete freedom.

MacSpeech Dictate is a new speech recognition product for the Macintosh, with underlying speech recognition powered by the dictation technology used in Dragon NaturallySpeaking from Nuance Communications, Inc. 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.

MacSpeech Dictate requires Intel-based Macintosh hardware and requires Mac OS X 10.4.11 or higher, including Mac OS X 10.5. MacSpeech Dictate is currently available in English in the U.S., the U.K., and in other English-speaking countries through International resellers and distributors. ■

GHOSTREADER 1.5 TAKES MAC TEXT-TO-SPEECH TO THE NEXT LEVEL

ConvenienceWare / AssistiveWare has announced the release of GhostReader 1.5, which adds new voices, enhanced iPhone/iPod export, a pronunciation editor and much more. GhostReader is a powerful, yet easy-to-use multilingual text-to-speech solution for Mac OS X that reads aloud PDF, Word and other documents ,as well as selected text in any application. It can also convert any text to audio files, MP3s, or bookmarkable audiobooks for playback on iPhone and iPod. Sit back and relax while GhostReader reads for you!

GhostReader 1.5 is a major update with the following new features and enhancements:

• Adds new natural sounding voices for Czech, Polish, Swedish and Finnish, while existing voices have been enhanced.

• Adds a pronunciation editor, which can be used to modify the way a word is pronounced or to add new abbreviations.

• Adds direct export to iTunes of documents and selected text for playback on iPhone or iPod.

• Adds user-selectable encoding for export to iTunes (AAC, MP3, WAV, AIFF, Apple Lossless).

• In Leopard now also reads DOCX and ODT documents.

• Export to iTunes now runs in the background.

• Enhanced responsiveness when speaking selected text or text below the cursor.

• Speaking selected text now also works in floating windows, such as those of the Leopard Help Viewer.

• Speak Text Below the Cursor now speaks the alt. tags for images and buttons in Web pages, Mail and widgets.

• Speak Text Below the Cursor now also speaks just the paragraph below the cursor in Mail, TextEdit and Pages 2008.

• Many other enhancements and fixes.

GhostReader can be used by anyone who prefers to listen to text rather then read it. Many professionals, writers, educators and students use it on a daily basis to save time, to proof read their own writing, to learn the pronunciation of foreign languages, or to improve their reading and listening comprehension.

GhostReader 1.5 is a free update for existing users. It is a Universal Binary requiring Mac OS X 10.4 or later and provides full Leopard compatibility. Voices are currently available for the following languages: American English, British English, Czech, Finnish, French, Canadian French, German, Icelandic, Italian, Danish, Dutch, Flemish, Spanish, American Spanish, Polish, Portuguese, Brazilian Portuguese, Norwegian, Turkish and Swedish. GhostReader itself is localized in English, French and German.

Pricing for GhostReader starts at $39.95 for a single-user monolingual version (includes all voices for a language of choice). Multilingual licenses, household licenses, classroom licenses and school licenses are also available. GhostReader is also available as a bundle with Infovox iVox for system-wide high quality voices that can be used with practically all Speech Manager compatible Mac OS X applications. Pricing for this bundle starts at $109 for a single-user license.

A boxed edition of GhostReader is distributed in Europe through Application Systems Heidelberg and available in selected European countries from Apple Stores, FNAC, Amazon and many Apple Resellers throughout the continent.

For more information, a fully-functional downloadable demo and to listen to samples of the voices, please consult the product page: www.convenienceware.com/ghostreader.php; Listen to samples: www.convenienceware.com/voices.php. ■

PROLOQUO 2.0 GIVES MAC USERS WHO CANNOT SPEAK A VOICE

AssistiveWare has announced the release of Proloquo 2.0, a major new version of the industry-leading communication solution for Mac users who cannot speak. Version 2.0 adds a lot of value: It now includes LayoutKitchen, a panel editor that allows users to create their own image-based communication panels, it adds the natural-sounding Infovox iVox voices for a language of choice, it has enhanced export to iTunes and many more improvements. Yet, this Universal Binary upgrade is free for existing users, as many of the people who rely on this software only have access to funding every few years.

Proloquo provides a talking word processor, quick access scrolling vocabulary lists with drag and drop vocabulary construction for people who can read and write, and much more. Also released recently, LayoutKitchen 2.1, which is already included as a keyboard editor for the KeyStrokes and SwitchXS on-screen keyboards, makes it easy to create colorful communication panels with photos and symbols for Proloquo. The natural-sounding Infovox iVox voices cannot only be used with Proloquo, but can be used with other software as well, including the Mac OS X built-in speech features.

Proloquo is used by adults and children who have difficulty speaking clearly or cannot speak at all due to, for example, Cerebral Palsy (CP) or Amyotrophic Lateral Sclerosis (ALS). To get an idea of how Proloquo is used in practice and the difference it makes, see the new short video "Communication is the central thing" available as episode 7 of the "Exploring the Frontiers of Assistive Technology" video podcast series, which can be found in the iTunes store's podcasts section and at www.frontiersofassistivetechnology.com?video=Walter.

Proloquo 2.0 and LayoutKitchen 2.1 are free updates for existing users. They are Universal Binary and require Mac OS X 10.4 or later. They provide full Leopard compatibility. Infovox iVox voices are currently available for the following languages: American English, British English, Czech, Finnish, French, Canadian French, German, Icelandic, Italian, Danish, Dutch, Flemish, Spanish, American Spanish, Polish, Portuguese, Brazilian Portuguese, Norwegian, Turkish and Swedish. Proloquo itself is localized in English, French and German. Existing Proloquo users can contact us for an Infovox iVox activation code for their current language.

Proloquo costs $299.

For more information, fully-functional downloadable demos and to listen to samples of the voices, please consult the product pages: www.assistiveware.com/proloquo.php, www.assistiveware.com/layoutkitchen.php. ∎

VISION - ➤

DUXBURY BRAILLE TRANSLATOR ADDS ENHANCED MATH SUPPORT

Duxbury Systems, Inc. and Design Science, Inc. have announced the availability of Duxbury Braille Translator (DBT) version 10.7 with support for direct import of Microsoft Word documents containing mathematical equations created with MathType. This improvement will allow users to author math with MathType in MS Word and then translate those materials to Braille via DBT for Windows.

The creation of Brailled math materials has historically been a very slow and complex process, but has been made easier in recent years thanks to automated tools like DBT. Access to brailled math materials is a critical factor for blind students and professionals in the science and engineering fields. DBT WIN 10.7 will significantly improve the speed and ease of math Braille creation.

"This is huge! Through an intensive collaboration with Design Science, users of MathType versions 5 and 6, with Microsoft Word can now author their math and translate to Braille using DBT WIN," said Neal Kuniansky, Director of Marketing and Sales at Duxbury Systems. "This will work with all Braille math codes supported by DBT WIN. We are very proud to help make math Braille available to an even wider number of DBT WIN users."

"We're thrilled to see companies like Duxbury make Braille math creation easier for the end user. Since so many authors of math content are using MathType to write math materials these days, making it easy to translate these resources will be a great boon to students and professionals who need Brailled math," said Steve Noble, Director of Accessibility Policy for Design Science.

To learn more about DBT 10.7, see www.duxburysystems.com/dbt.asp.

For information on obtaining MathType, see www.dessci.com/mathtype. ∎

TREKKER BREEZE, THE EASY ALL-IN-ONE HAND-HELD TALKING GPS, IS NOW AVAILABLE

HumanWare is now taking orders for the Trekker Breeze, a state-of-the-art talking GPS specially designed for the needs of visually impaired users. This simple orientation tool is designed for use when travelling in familiar surroundings or pre-defined routes. The product will also be appealing to people not comfortable with computers and screen readers. The new model is an addition to our popular Trekker and BrailleNote GPS systems, which have thousands of users worldwide. With this innovation, HumanWare will make GPS technology even more accessible to a greater number of people.

The Trekker Breeze is available for purchase at an affordable price of $895. In the fall of 2008, The Trekker Breeze will become available in other languages for European and Asian countries.

Like other GPS products from HumanWare, the Trekker Breeze provides talking GPS directions that help users know where they are, where they are going and what is around them.

Trekker Breeze offers the important benefits of GPS orientation tools. It enhances autonomy and confidence in travelling and makes learning new routes easier. Users can record routes as they walk them with sighted assistance. Routes can then be previewed and activated for future use. As they walk by, users receive audible information, such as street names, intersections and reference landmarks. In case they are lost, they can retrace their steps. They can also reach favorite destinations with turn-by-turn instructions from their current position. The product makes it easier to travel alone, and allows people to discover and enjoy their surroundings.

"GPS technology brings great benefits to visually impaired travellers. With this new addition to our product line, HumanWare now offers GPS benefits to an even wider portion of the visually impaired population," said Lucia Gomez, Product Manager. "Easy and intuitive, Trekker Breeze offers basic orientation functions in an all-in-one hand size device. It is also the most affordable GPS tool specially designed for the needs of users who are blind."

HumanWare offers the most complete line of GPS tools for visually impaired people. The line includes the popular Braille-

Note GPS and Trekker. BrailleNote GPS is a full-featured GPS tool that integrates seamlessly with Keysoft. It is available with any of the BrailleNote family of products. BrailleNote GPS benefits from the highly efficient and easy-to-learn Keysoft interface. Sleek and discreet, Trekker is a powerful GPS solution running on a mainstream palm-size PDA. Trekker is highly appealing to professionals and students already familiar with computers and screen readers.

"Trekker Breeze will make the potential of GPS technology even more accessible to the blind," said Lucia Gomez.

The BrailleNote GPS and Trekker are currently available from HumanWare. For more information, please visit www.human-ware.com/en-usa/products/gps. ∎

SEATING/POSITIONING/MOBILITY ------------------------------------>

NEW "STANDING" DESK CREATED TO IMPROVE STUDENTS' ACADEMIC ACHIEVEMENT AND PHYSICAL FITNESS

When Abby Brown, a Minnesota teacher of more than 22 years, speaks about possibilities, those around her listen. Brown has a vision of what student learning and productivity look like, and now students at Marine Elementary are reaping the benefits of a joint effort between Brown and Wisconsin-based Sunway Inc.

Launching the first of its Stand Up for Learning ergonomic products, Sunway has introduced the AlphaBetter Student Desk, an adjustable-height desk that allows students to stand while completing their school work. The AlphaBetter Student Desk was designed specifically at Brown's request, and its effects on academic achievement and physical fitness are being studied by Education Minnesota/Ypsilon Associates and researchers from the University of Minnesota.

"Confining students to one position throughout the entire school day - day after day - isn't in their best interest academically or physically," said Brown, a sixth-grade teacher who has taught at Marine Elementary for 19 years. "Research shows us that attention to task, physical well - being-perhaps even self-esteem - can be improved by offering students the option to complete their work standing."

When Brown glimpsed media coverage about a "classroom of the future," she was inspired to seek classroom improvements that could benefit her own students. Last spring, she contacted Sunway to solicit a standing desk.

"Sunway has been receptive to my recommendations and insights," says Brown. "The attention to detail, from the moveable footrest to the added weight of the stool (to keep it from tipping), has been exceptional."

"Abby was very specific about her request, and with almost two decades of ergonomics experience in office furniture, we knew how to achieve it," says Tim Skiba, president of Sunway. "Combining our experience with Abby's 22 years in the classroom, the AlphaBetter desk is one of the strongest education furniture products available."

Using grants solicited from local sources, Brown has now filled four classrooms in her school district with the AlphaBetter Student Desk. She has also enlisted Education Minnesota/Ypsilon Associates to identify potential improvements in academic achievement, while University of Minnesota researchers are studying the impact on students' caloric expenditure and physical fitness.

Brown continues to solicit additional financial support and raise awareness of the AlphaBetter Student Desk and its benefits within the Midwest. She regularly attends Rotary Club meetings and completes grant applications, hoping to increase the number of school districts using the unique standing desk. In particular, she points out the benefits to students with ADHD and other special needs.

Currently, the Stand Up for Learning products include:

• AlphaBetter Student Desk – A high-end, quality school product, the AlphaBetter Student Desk is an adjustable-height desk designed to fit most students from third to 12th grade. Supporting legs adjust from 26 to 42 inches, providing the best-fit option for individual students, and steel frame construction allows for long-lasting durability and stability. The AlphaBetter Student Desk is assembled in Sunway's Centuria, Wisconsin-based manufacturing plant, with metalwork supplied by Midwest metal suppliers. A patent-pending product made exclusively in the United States, the AlphaBetter Student Desk retails at $280.

An added feature of the AlphaBetter Student Desk is the patent-pending Pendulum Footrest, which comes standard on all AlphaBetter desks. The footrest naturally corrects a student's body position and ergonomic posture while providing lower back stress relief.

• Adjustable-Height Stool – An adjustable-height stool, weighing 19 pounds and featuring steel "tip-resistant" legs for added stability, this Sunway product allows for height variation between 21 and nearly 36 inches. A 13-inch wide square seat increases the seating surface over that of standard circular stools. Sunway's adjustable-height stool retails for $169.

For more information about Sunway and its AlphaBetter Student Desk, please contact Sunway at 877-408-5396 or visit www.standupforlearning.com. ∎

Closing The Gap

26th ANNUAL CONFERENCE

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The most practical, practitioner-driven AT conference in North America.

26th Annual Conference

Closing The Gap's annual conference has earned a reputation internationally as a leading source for information on innovative applications of assistive technology for persons with disabilities. The 26th Annual Conference builds on a tradition of providing a comprehensive examination of the most current uses of technology by persons with disabilities and the professionals who work with them.

Topics will cover a broad spectrum of technology as it is being applied to all disabilities and age groups in education, rehabilitation, vocation, and independent living. People with disabilities, special educators, rehabilitation professionals, administrators, service/care providers, personnel managers, government officials, and hardware/software developers will share their experiences and insights at what has become known as the most significant networking experience of the year – the annual Closing The Gap Conference.

Preconference Workshops

October 14-15, 2008

The 2008 Conference offers 25 preconference workshops on October 14th and 15th providing in-depth professional skills necessary to successfully implement assistive technology in the lives of persons with disabilities. Each workshop is conducted by a nationally recognized leader in the field.

Preconference Workshops will be held on Tuesday, October 14 and Wednesday, October 15, beginning at 8:00 am and ending at 4:30 pm. The fee for each one-day workshop is $270. Some workshops carry an additional fee for materials. All participants will receive a Closing The Gap-issued, presenter-signed Certificate of Preconference Workshop Attendance upon completion of the workshop.

In addition, graduate-level academic credit from Hamline University, St. Paul, Minnesota and CEUs are available for a variety of levels of conference attendance.

Over 200 Presentations

October 16-18, 2008

The 2008 Closing The Gap Conference offers over 200 sessions that describe and/or demonstrate successful applications of assistive technology for persons with disabilities. Sessions examine results of current applications, research, development of computer hardware, software, or adaptive devices, model programs, or procedures used by and for persons with disabilities.

Sessions emphasize practical applications rather than theoretical discourse. Through lecture, networking, demonstration, and hands-on lab sessions, assistive technology users of every level of expertise can find valuable information at the 2008 event. Presentations for experienced practitioners focus on needs of persons actively using assistive technology in education, rehabilitation, vocation, or independent living - typically intermediate to advanced level computer users.

For those who are just being introduced to assistive technology, the conference provides a range of presentations that meets needs across the assistive technology experience continuum and facilitates a balanced interchange between special educators and rehabilitation professionals.

Graduate-level academic credit and CEUs are available. A Certificate of Attendance is available upon request at no additional fee.

Over 100 Commercial Exhibits

October 15-18, 2008

The 2008 Closing The Gap Conference features extensive commercial exhibit areas, displaying state-of-the-art computer-related products, representing over 100 companies.

Academic Credit

Graduate-level academic credit from Hamline University, St. Paul, Minnesota is available for a variety of levels of conference attendance.

Participants will have the option of one, two or three full semester credits, each requiring specific contact hours and an outside assignment. The contact hours for the desired credit(s) can be met by preconference workshop participation, conference participation, or a combination of the two.

12 contact hours plus an outside assignment = one full semester credit (This one credit option requires one preconference workshop and conference participation; two preconference workshops; OR conference participation only.)

24 contact hours plus an outside assignment = two full semester credits (This two credit option requires one preconference workshop (minimum) AND conference participation.)

36 contact hours plus an outside assignment = three full semester credits (This three credit option requires two preconference workshops AND conference participation Thursday - Saturday).

One semester credit is $115; two semester credits are $230; three semester credits are $345.

In addition to the contact hours, an outside assignment will be required and will need to be turned in to Closing The Gap by November 15th, 2008. Within a few weeks, grades will be issued and then maintained by Hamline.

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 will be 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. Pre-conference workshops are offered for up to 1.4 CEUs. The conference is offered for up to 2.0 CEUs. For additional information visit www.aacinstitute.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.

RESNA Certification Exam

RESNA will be hosting the ATP/ATS/RET certification exam in conjunction with the Closing the Gap Conference at the Sheraton Bloomington Hotel on Monday, October 13, 2008 from 1:00 pm - 5:00 pm. For more details about the certification program or about RESNA, please visit the RESNA Web site at www.resna.org.

Conference Schedule

Monday, October 13
5:00 pm - 9:00 pm ....Registration Desk Open

Tuesday, October 14
7:00 am - 8:00 pm ....Registration Desk Open
8:00 am - 4:30 pm ....Preconference Workshops

Wednesday, October 15
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 16
7:00 am - 5:30 pm ....Registration Desk Open
8:00 am - 10:30 am..Presentations
10:30 am - 12:30 pm.................................Exclusive Exhibit Hours
                                                                        and Lab Presentations
12:30 pm - 4:30 pm...Presentations
9:00 am - 5:30 pm ....Commercial Exhibits

Friday, October 17
7:30 am - 5:30 pm ....Registration Desk Open
8:00 am - 10:30 am..Presentations
10:30 am - 12:30 pm.................................Exclusive Exhibit Hours
                                                                        and Lab Presentations
12:30 pm - 4:30 pm...Presentations
9:00 am - 5:30 pm ....Commercial Exhibits

Saturday, October 18
7:30 am - 2:00 pm ....Registration Desk Open
8:00 am - 1:30 pm ....Presentations
9:00 am - 2:00 pm ....Commercial Exhibits

Preview of Exhibits

Open to preconference and/or conference registrants only.
Wednesday, October 15
5:30 pm - 8:00 pm

Regular Exhibit Hours

Open to conference registrants only.
Thursday, October 16
9:00 am - 5:30 pm
Friday, October 17
9:00 am - 5:30 pm
....
Saturday, October 18
Open to the public at no charge.
9:00 am - 2:00 pm
....
Sheraton Bloomington Hotel - Great Hall

Preconference Workshops

Some workshops fill quickly.

Early registration is encouraged.

Tuesday, October 14, 2008
8:00 am - 4:30 pm

PC-1 Implementing Literacy and Communication Instruction for Students with Significant Disabilities, Including Deaf-Blindness: Activities and Strategies that ARE Working

Gretchen Hanser, M.S., OTR, is the Director of Deaf-Blind Model Demonstration Classroom Project, 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 Autism and Literacy: Assessment Defining Instruction

Susan Norwell, M.A. Special Education, is an Educational Specialist in private practice, Focused Learning Solutions, Buffalo Grove, IL.

PC-3 But What if the Teachers Won't Do It? Making a Difference with Your Consultative Services

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-4 Getting to Conversations and Communication While Learning Switch Access: Strategies for Children Who Face Multiple Challenges and Complex Communication Needs

Linda J. Burkhart, B.S., is a Special Educator/Augmentative Communication Specialist/Technology Integration Specialist in private practice, Eldersburg, MD; Dale Gardner Fox, M.S., is a Physical Therapist/Assistive Technology Consultant, Hampshire Educational Collaborative, CCATT, Northampton, MA; and Deanna K. Wagner, M.S., CCC-SLP, is an Assistive Technology Specialist, Southwest Human Development, Phoenix, AZ.

PC-5 Boardmaker Plus! Boot Camp: A Combined Skill and Implementation Workshop

Lisa Kehoe, M.S., is an Educational Specialist/Training Manager for Mayer-Johnson, LLC, Des Moines, IA.

PC-6 The Right Tools for the Right Job: A Person-Environment-Occupational Approach for Reading Technologies

Laurie McArthur, B.S., OTR, is the Services Coordinator, Lizna Husnani, M.S., OTR, is an Adaptive Technology Authorizer, Linda Petty, OTR, is a Clinical Specialist, and Charles Silverman, M.Ed., is the SNOW Project Coordinator, all, Adaptive Technology Resource Centre, University of Toronto, Canada.

PC-7 Make It Age Appropriate: Engaging Your Adolescent and Young Adult AAC Users with Severe/Profound Disabilities in Age Appropriate Communication

Elizabeth (Libby) S. Rush, M.A., CCC-SLP, CPM, is an AAC Consultant in private practice, Durham, NC and Leslie Redding, M.S., CCC-SLP, is an Assistive Technology Specialist, North East ISD, San Antonio, TX.

PC-8 Practical Low Tech Instructional Strategies and Behavior Management for Students with Autism Spectrum Disorder

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

PC-9 A Deeper Look: How Technology Can Enhance Written Communication Skills

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

PC-10 The Accessible Book Club for Early Literacy and Language Learning: Create-It and Take-It Computer Lab

Pati King DeBaun, M.S., is a Speech Language Pathologist 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-11 Bringing the Curriculum to iLife

Mark Coppin, B.A. in Speech Communication and B.S. in Special Education, is the Assistive Technology Director and Theresa Hanson, B.S. in Elementary Education, is the Assistive Technology Coordinator, both, Anne Carlsen Center for Children, Jamestown, ND.

PC-12 Accessible Instructional Materials 101: What State and Local Education Agencies and Families Need to Know About NIMAS and Beyond

Joy Zabala, Ed.D., ATP, is the Project Manager, The AIM Consortium, CAST, Inc., Lake Jackson, TX; Kelly Fonner, M.S., is an Assistive/Educational Technology Consultant, Lake Geneva, WI; and Scott Marfilius, M.S., is an Assistive/Educational Technology Consultant, Bayside, WI.

Wednesday, October 15, 2008
8:00 am - 4:30 pm

PC-13 Response to Intervention in Reading: Tier 2 Approaches that Address Individual Learning Needs

Karen Erickson, Ph.D., is a Professor, Dept. of Allied Health Sciences and is the Director of the Center for Literacy and Disability Studies, University of North Carolina, Chapel Hill, NC; Penny Hatch, M.S., CCC-SLP, is a Research Associate, Gretchen Hanser, M.S., OTR, is a Research Associate, and Eric Sanders, M.S., CCC-SLP, is a Research Assistant, all, Center for Literacy and Disability Studies, University of North Carolina, Chapel Hill, NC.

PC-14 Making the Connection: Integrating AT into Current Education Initiatives

Penny R. Reed, Ph.D., is a Consultant, Penny Reed Consulting, Roseburg, OR and Gayl Bowser, M.S., is a Consultant, Assistive Technology Collaborations, Roseburg, OR.

PC-15 Creating Accessible, Tiered, Talking Web Pages

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

PC-16 Beginning Communication, Beginning Language, and Beginning Conversations! Strategies for

Students with Multiple and Severe Disabilities: Make-It, Take-It

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

PC-17 Designing Two-Switch Activities for Computer Access: Hands-On Computer Lab - Classroom Suite

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, Timonium, MD.

PC-18 Creating and Using Accessible Curriculum Materials

Jim Kauppila, B.A., is a Teacher Consultant for Assistive Technology, Muskegon Area ISD, Muskegon, MI and Mark Dennis, M.A., is a Consultant for Assistive Technology, Eaton ISD, Charlotte, MI.

PC-19 Sensory Processing, Sensory Integration, and Seating and Access: How to Support Access and Independence with Students in Wheelchairs

Karen M. Kangas, OTR/L, ATP, is an Occupational Therapist, Assistive Technology Specialist, and Clinical Educator in private practice, Shamokin, PA.

PC-20 "Whodunit!" Unraveling the Mystery of Social Relation Skills for Asperger's Syndrome: Practical Uses of Technology for Intervention

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

PC-21 Beyond Emergent Literacy: Supporting Guided Reading for Students with Significant Disabilities

Caroline Ramsey Musselwhite, Ed.D., CCC-SLP, is an Assistive Technology Consultant and Author, AAC Intervention, Litchfield Park, AZ; Nancy Hogan, M.S., is a Teacher/Assistive Technology Team, Agawam Public Schools, Agawam, MA; Laurel Richardson, M.A. Ed, OTR, is an Assistive Technology Specialist, Buckeye School District, Goodyear, AZ; and

Kim Daswick, B.A., is a Parent of an AAC User, Litchfield Park, AZ.

PC-22 Technology Supports for Homework

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

PC-23 Clicking in the Fast Lane with Clicker 5 and Clicker Paint

Dan Herlihy is an Assistive Technology/ Technology Resource Specialist, Connective

Technology Solutions, Inc., Hoosick, NY and Darlene Brodbeck, M.S., is the AT Coordinator, ACES, Hamden, CT.

PC-24 Writing with the 6 + 1 Traits for Children with Significant Disabilities

Susan Norwell, M.A. Special Education, is an Educational Specialist in private practice, Focused Learning Solutions, Buffalo Grove, IL.

PC-25 Providing Meaningful Curricular Experiences for Students with Significant Disabilities

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

Over 250 Presenters

Alfano, Melissa - NBCT

Ames, Bridget - PACER Center

Anderson, Annalee - Prentke Romich Company

Anderson, Susan - Margaret Brent School

Arnold, Courtney - Sweetwater School, Washington Elementary School District

Ashby, Patty - AAC Intervention

Ayres, Kevin - University of Georgia Dept. of Communication Science and Special Education

Baker, Melissa - Monarch School of Belle-faire JCB

Bakula, Bridget - Cedar Falls High School

Baldwin, Linda - LAB Resources

Bardach, Lisa - Private Practice

Barry, Mary Jo - Don Johnston Incorporated

Begolke, Shelly - Assistive Technology Partners, University of Colorado Denver/ Health Sciences Center, Dept. of Physical Medicine and Rehabilitation

Beguin, Jasper - Tyltylecentrum de Witte Vogel

Behnke, Kirk - Region IV Education Service Center

Bell, Jennifer - Clark County Schools

Bender, Brenda - Don Johnston Incorporated

Beneteau, Erin - Tobii ATI

Bloemen, Ruben - Mytylschool Ariane de Ranitz

Bowser, Gayl - Assistive Technology Collaborations

Bozzone, Mary - PS 256 Q

Braun, Bob - Southwest/West Central Service Cooperatives

Breslin Larson, Joan - Minnesota Dept. of Education

Brodbeck, Darlene - ACES, Whitney High East

Broussard, Donna - Louisiana Dept. of Ed., Div. of Educational Improvement and Assistance Program Services

Brown, Cheryl K. - Center for Excellence in Training, Willamette University

Brown, Richard - Infinitec/United Cerebral Palsy

Brune, Patrick - Blink Twice

Buma, Pieter - Dr. J de Graafschool

Bump, Marcie - University of Texas at Austin

Burkhart, Linda

Buti, Mo - Chicago Public Schools

Butterfield, Roxanne - Slater Software, Inc.

Cage, Mark - Adaptive Community Approach Program

Carl, Diana

Casey, Karen - Durham CDSA/ATRC

Cavanagh, Cindy - Mississippi Bend Area Education Agency

Cheong, Amanda - AT:LAST, Inc.: The MD AT Cooperative

Chones, Patty - Adaptive Community Approach Program

Clark, Elisabeth - Marie Enfant Rehab Center, St. Justine's Hospital

Clark, Jacquelyn - News-2-You, Inc.

Clarke, Vicki - Dynamic Therapy Associates, Inc.

Coppin, Mark - Anne Carlsen Center for Children

Cordle, Betsy - Wake County Public Schools

Crick, John - Crick Software, Inc.

Cummings, froma - University of Wisconsin-Milwaukee

Cunningham, Joan - AbleLink Technologies

Dahlquist, Lori - Adaptivation, Inc.

Danielson, Priscilla - Colonial School District, John G. Leach School

Dashner, Mel - Origin Instruments Corp.

Daswick, Kim

Davis, David - Florida Instructional Technology Training & Resource Unit

de Nijs, Ronno - SN/VSN de Rietlanden

Delisi, Jennie - Lifeworks Services

Denen-Vloet, Katja - Mikadoschool

Dennis, Mark - Eaton Intermediate School District

deRoy, Lisa - SMART Technologies

Diedrich, Jeff - Michigan Integrated Technology Supports

Dinneen, Beth - Blink Twice

Doneski Nicol, Janis - Northern Arizona University IHD

Donkers, Ted - Heliomare Onderwijs

Douglas, Karen - University of Georgia

Duchateau, Marjolein - van Koetsveld-school

Duggan, Marie - Children Hospital Boston at Waltham

Dunn, Kelly - Handy Tech North America

Dwyer, Jeanne - Center for Technology in Education, Johns Hopkins University

Edge Savage, Jennifer - Cambium Learning Technologies

Edyburn, Dave - Dept. of Exceptional Education, University of Wisconsin

Erickson, Karen - Center for Literacy & Disabilities Studies

Estrada Hernandez, Noel - University Iowa, Counseling Rehabilitation and Student Development

Evmenova, Anna - George Mason University

Feit, Suzanne - Cambium Learning Technologies

Fischer, Nettie T. - Nettie T, ATP Consultants

Fitzgibbons, Debra - Texthelp Systems, Inc.

Fonner, Kelly

Foss, Terry - Shawnee Mission School District 512

Frailey, Cheris - Mayer-Johnson, LLC

Frake, Erika - PACER Center, Simon Technology Center

Gallagher, BJ - The Gallagher Group LLC

Garber, Susan - AT:LAST, Inc.: The MD AT Cooperative

Gardner Fox, Dale - Hampshire Educational Collaborative CCATT Center

Geenen, Bob - Mayer-Johnson/DynaVox

Geist, Lori - Mayer-Johnson, LLC

George, Cindy - George Mason University

Gibbons, Chris - ALS Association of Oregon and Southwest Washington

Gitta, Cynthia - River Hills School

Goldberg, Aleaza

Gomory, Andrew - Lingraphicare

Good, Janet - FDLRS ATEN FL

Hamil, Andrina - Corpus Christi ISD

Hanser, Gretchen - Center for Literacy and Disability Studies

Hanson, Theresa - Anne Carlsen Center for Children

Harris, Pam

Harrison, Earle - Handy Tech North America

Hatch, Penny - Center for Literacy & Disabilities Studies, University North Carolina

Hebein, Jenna - Sweetwater School, Washington Elementary School District

Herlihy, Dan - Connective Technology Solutions

Hermes, Henri - Stichting Orion

Herold, Rich - AbleLink Technologies

Herren, Lisa

Hershberger, David - Saltillo Corporation

Hershman, Vicki - PATINS Project

Hinz, Jane - Augusta County Schools

Hodapp, Joan - Area Education Agency 267

Hodge, Ginny - Chapel Haven Asperger's Syndrome Adult Transition Program

Hohn, Rick - DynaVox Technologies

Howard, Krista

Hu, Ron - Afforda Speech

Huddleston, Keri - Washoe County School District

Hurd, Robin - AAC Institute

Hurdich, Jason - Vcom3D, Inc.

Inman, Nancy - Kennedy Krieger Institute

Jak, Hans - De Zevensprong, School voor SN en

Johnson, Kenja - Corpus Christi ISD

Johnson, Tonja - HMS School for Children with Cerebral Palsy

Jones, Jonathan - Northeast Metro 916

Jongerius, Reiner - Helionmare Onderwijs

Kaldahl, Brad - University of Dubuque

Kanchan, Verma - Sweetwater School, Washington Elementary School District

Kangas, Karen

Kann, Steven - Wimba

Kaplan, Marsye - Baltimore County Public Schools

Kapp, Beth - River Hills School

Kauppila, Jim - Muskegon Area Intermediate School District

Kehoe, Lisa - Mayer-Johnson, LLC

Kelly, Dawn - River Hills School

Kempka Wagner, Deanna - Southwest Human Development

Khalsa, Arjan - Cambium Learning Technologies

Kinas Jerome, Marci - George Mason University

Kind, Julie - Pr. Wilhelminaschool

King DeBaun, Pati - Creative Communicating

King, Kristina - Benetec - Bookshare.org

Kingeter, Cathy - Origin Instruments

Kjendalen, Jim - LaZee Tek

Klenk, Kristen - Glendale School District

Koch, Amy - Adaptivation, Inc.

Koester, Heidi - Koester Performance Research

Koppes, Sharmin - River Hills School

Korsten, Jane - EMC, Inc.

Koseoglu, Suzan - University Minnesota, Dept. Curriculum and Instruction, College of Education and Human Development

Kracht, Alexander - Talita Koemi

Kruger, Heather - River Hills School

Krupp, Rita - Grossmont Union High School District

Lange, Michelle L. - Access to Independence, Inc.

Langsdale, Teru - Washoe County School District

Larson, Mark - Marblesoft, LLC

Laskarzewski, John - Spotlight on Learning

Lasthuizen, Martijn - Maurice Maeterlinckschool

Leaman, Chad - Neil Squire Society

Legierse, Leon - Mytylschool Roosendaal

Lewis, Laura - Wake County Public School Systems

Lewis, Wendy - HMS School for Children with Cerebral Palsy

Longstroth, Cathy - Utah Personnel Development Center

Lynn, Corky - South Kitsap School District

Macari, Krista - Cotting School, Inc.

Macomber, Phyl T. - Phyl T. Macomber, Inc.

Marden, Jennifer - Technically Speaking

Marfilius, Scott

Marsden, Randy - Madentec Limited

Mazurek, Janis - Northside Independent School District

McBride, Debby - Peds Rehab, Mapleton Center

McCarthy, Ryan - PACER Center, Simon Technology Center

McGraw, Verda - Prentke Romich Company

McKay, Martin - Texthelp Systems, Inc.

McKinnon, Susie - Beneteck/Bookshare.org

McNulty, Daniel - PATINS Project

McQuillan, Rosey - Wellesley Public Schools

Mechling, Linda - University of North Carolina Wilmington

Meyer, Jo - SoftTouch, Inc.

Mezzomo, Angela - EBS

Motl, Ann - PACER Center, Simon Technology Center

Mulholland, Rita - Richard Stockton College

Mundl, Jennifer - Courage Center

Nankee, Cindy - Wisconsin Assistive Technology Initiative at CESA #3

Neelis, Jan - Werkenrodeschool

Newton, Robbin - Duke University Medical Center, DUMC

Niemeijer, David - AssistiveWare

Nordlander, Joy - South Kitsap School District

Norwell, Susan

Notermans, Raf - FranciscuSNord Mytylschool

Nygard, Joni - Attainment Company Inc.

Odom, Jane - Prentke Romich Company

Olson, Sharon - Anne Carlsen Center for Children

Ooms-Verhoeven, Janneke - FO Mytylschool

Overtoom, Catherine - Baltimore County Public Schools

Parkins, Sherri - Seneca College of Applied Arts and Technology

Patch, Kimberly - Redstart Systems, Inc.

Pearson, Mike

Pepin, Michel - HumanWare

Perkins, Christina - Assistive Technology Partners, University of Colorado Denver/Health Sciences Center

Pete, Ann Marie - Galloway Township Public Schools

Peterson, Richard - University Minnesota, Dept. of Speech-Language-Hearing Sciences

Phelps, Terese - Prentke Romich Company

Plandsoen, Benjo - Emiliusschool

Popeson, Joanne - Galloway Township Public Schools

Poss, Beth - Montgomery County Public Schools/Johns Hopkins University

Post, Kathleen - DuPage Easter Seal

Pugliese, Madalaine - Simmons College, Boston, MA

Rachow, Cinda - Loess Hills Area Education Agency 13

Radcliffe, Sarah - Chippewa Falls School District

Rainey, Dawn - HMS School for Children with Cerebral Palsy

Ramsey Musselwhite, Caroline - AAC Intervention

Rea, Patti - Adaptive Technology

Redepenning, Sue - Courage Center

Reed, Penny - Penny Reed Consulting

Reinhardt, Kevin - Seneca College of Applied Arts and Technology

Ricard, Jane - FLLAC Educational Collaborative

Richardson, Michael - DO-IT (Disabilities, Opportunities, Internetworking, and Technology), University of Washington

Riggs, Molly - Carroll County Public Schools

Roberts, Jessica - Weber School District

Robertshaw, David - Cambium Learning Technologies

Rodriguez, Sylvia G. - Northside ISD

Rogers Adkinson, Diana - University Wisconsin - Whitewater

Rogers, James - Technology for Education, Inc.

Rotelli, Lisa - Adaptive Switch Labs, Inc.

Rush, Elizabeth (Libby)

Sagstetter, Mary - AbleNet, Inc.

Schmidt, Janet - Wellesley Public Schools

Schneider, Holly - DynaVox Technologies

Schorsch, Jeanne - AbleNet, Inc.

Schreiber, Linda R. - Linda R. Schreiber and Associates

Senner, Jill - University of Wyoming

Sennott, Samuel - Nova Southeastern University

Seok, Soonhwa - University Wisconsin, Whitewater

Sheehan, Karen - Attainment Company

Sheets, Toni - Augusta County Schools

Sherburne, Jari - River Hills School

Slater, Jean - Slater Software

Slotznick, Ben - Point-and-Read, Inc.

Smeele, Hans - Mytylschool de Ruimte

Smith, Michelle M. - Northside ISD

Spicer, Scott - University Minnesota Libraries

Stachowiak, James - University of Iowa, College of Education

Stafford, Lauren - Monarch School of Bellefaire JCB

Stanley, Debra - Corpus Christi ISD

Staugler, Kathy

Stefanich, Greg - University of Northern Iowa

Stindt, Karen - WATI CESA 6

Stoffele, Peter - Mytylschool Gabriel

Stokes, Susan

Stores, Dan - Southwest/West Central Service Cooperatives

Susi, Lauri - Spotlight on Learning

Sweeney, Judith - Onion Mountain Technology, Inc.

Szarkowski, Marcy - Anne Carlsen Center for Children

Tenny, John - Williamette University, eCOVE Software

Thompson, Daniel - PACER Center, Simon Technology Center

Thornburg, Lon - Umatilla Morrow Education Service District

Trautman Pearson, Juli - Boulder Community Hospital

Turner, Jacquelene - Corpus Christi ISD

Villalobos, Chris - Grossmont Union High School District

Vizza, Victoria - PS 256Q

Vlassak, Jack - Mytylschool de Brug

Vogel, Heidi

Waddill, Karen - Cotting School, Inc.
Walrecht, Hans - de Alk
Walser, Paula - CESA 6
Weibel, Katrina - PACER Center
Weisner, Ben - Read Naturally
Whisney, Brian - PACER Center, Simon Technology Center

Whitby Norman, Debbie - Colonial School District, John G. Leach School
White, Tina - AT:LAST, Inc.: The MD AT Cooperative
Whitfield, Kristin - DynaVox Technologies
Wilkes, Byron - Learning Magic, Inc.
Wilson, Mary - Laureate Learning Systems

Wingfield, Joan - Augusta County Schools
Wollak, Barbara - St. Paul Public Schools, Camp Courage
Woodbury, Keith - Tobii ATI
Wyant, Teresa - Mississippi Bend Area Education Agency

Yates, Allison - Advanced Multimedia Devices, Inc.
Yoder, Lisa - AEA 267, River Hills School
Zabala, Joy - CAST, Inc.
Zegley, Peggy - Infinitec
Ziolkowski, Ruth - Don Johnston Incorporated

Presentations

Assessment

AT Assessment: Laying the Groundwork for Success (Two Block Session)

Clarifying Assessments and Capturing Understanding with Boardmaker Software Family

Creating and Conducting an Effective Large Scale Assistive Technology Needs Assessment

How to Assess Young Children for Powered Mobility

How to Assess, Teach, and Use the Head as an Access Site for AT

How to Gather Useful Evidence for Access Assessment

Location, Location, Location! Determining the Best Switch Location and Type for Access to Assistive Technology (Two Block Session)

Look What I Can Do: From an Adaptation-Based to an Assessment-Based Approach

Portfolios that Work

RTI, UDL, and AT: Mining the Data to Reveal a Need for Strategies that Use Technology to Enhance Performance

Solving the Puzzle: Data is Our Friend (Two Block Session)

The SETT Framework: Straight from the Horse's Mouth

Understanding Assessment, Access, and Trials for the tango!

Unlock the Mystery of Print: Strategies for Student Reading Achievement

Augmentative Communication

A Comparison of Eye-Control with Switch Scanning: Speed, Accuracy, and Fatigue Levels

AAC and the Classroom

AAC Evaluations: Build Your Own Toolkit

AAC in Medical Settings: Keeping It Simple ... Meeting the Needs

Accessing AAC: Case Studies and Literature Review

Before/During/After: Secrets of the Balanced Literacy Club Project (Two Block Session)

Beyond Eat, Drink, and Potty: Take 2! (Two Block Session)

Beyond Mac or PC: iPhone and Modbook as Assistive Technology

Breaking Tradition: Creating Static Communication Page Sets that Enhance Curriculum Integration and Interaction

Communicating in a Modern World Part 2: Socially Speaking Software

Consistent, Efficient AAC Use: How Language Sampling Can Help

Conversations and Communication while Learning Switch Access: A Smorgasbord of Strategies for Children with Complex Communication Needs (Two Block Session)

Curriculum and Communication Ideas to Meet Standards in Your Classroom

Designing Visual Scene Displays: Choosing Meaningful Images and Practical Teaching Guidelines for Vocabulary Expansion

EZ AAC Kamp: Just Add Kids!

Hands-on Introduction to the Lingraphica Speech-Generating Device

Hands-on Lab: Integrated Computer Access on the DynaVox V and Vmax (Two Block Session)

Hands-on Lab: Making the Most of Alternate Access on the DynaVox V and Vmax (Two Block Session)

How to Talk Cheap: Understanding Options and Making Decisions About Lite Tech, Low Cost AAC (Two Block Session)

Integrated Augmentative Communication Devices Operating Through WordPower

IntelliTools Extreme! New Frontiers with Classroom Suite 4

Lessons Learned with AAC in the Classroom

Meet tango! Lab 2.0 Programming Software: Get Ready to Supercharge

Customization for Your tango!

Multimodal Communication Strategies for Girls Who have Rett Syndrome (Two Block Session)

New Developments in Portable Keyboard-Based Speech Generating Device (SGD)

Partner-Assisted Communication: Moving from Receptive Use to Expression

PHOTOsyms: Augmenting a Student's Vocabulary with Custom Symbols

Point-and-Chat: Instant Messaging for AAC Users

Pragmatic Organization of Vocabulary: What is That?

Pragmatic Skills in Teens and Young Adults Using AAC

Strategies that Enable AAC Users to Engage Communication Partners: A Consumer's Perspective

The tango! Creating a Social, Linguistic, and Educational Framework

Understanding Alternate Access on Nondedicated AAC Devices

Vocabulary Management in AAC: A New Tool for Seamless Vocabulary Growth

We Dance, We Sing, We Do All Kinds of Things Working with Infants and Toddlers

Yes They Can: Young Children with Significant Disabilities, Including Deaf-Blindness, as Communicators, Readers and Writers (Two Block Session)

You Oughta be in Pictures: Using AAC to Create an Accessible Early Childhood Classroom

Autism

Asperger Syndrome and School: What Does It Take, REALLY?

Fostering Independence: The Use of Technology in the Instruction of Adolescents and Young Adults with Asperger's Syndrome and High Functioning Autism

From Early Engagement to Beginning

Literacy Strategies for Children on the Autism Spectrum (Two Block Session)

Let's Get Visual! Visual Supports in the Home, School and Community

Low Tech AT for Teaching Activities of Daily Living to Students with ASD

Sorting Through Software for Task and Behavior Supports

Technology to Support Visual Language Programming

The "Wicked" Truth About What It Takes to be "Popular, You're Gonna be Popular".... or at Least What It Takes to Improve Your Social Skills

Unraveling the Mystery of Social Relation Skills for Students with Asperger's Syndrome: Practical Uses of Technology for Assessment and Intervention

Using Animated Software to Improve Communication Skills of Young Students with Autism

Cognitive Redevelopment

Cognitive Support Technologies: Coming Full Circle

Curriculum Development

A Unique Curriculum for Unique Learners

Accessible Text Year Two

Aligned and Ready to Learn

AT: The Most Reliable Network

Boardmaker Software Family and the Web: Creating, Sharing, and Finding Symbol Adapted Curriculum

Clicking in the Fast Lane with Clicker 5 and Clicker Paint

Collaboration, Teamwork, Solidarity, Joint Effort, Partnership: Whatever the Name ... It CAN Work!

Creating Accessible Curriculum Activities for the Deaf/Hard of Hearing

Easy to Say - Hard to Do: Making Meaningful Curriculum Modifications and Assessment Easier

Integrating AT and AAC in Your News-

2-You Classroom Lessons (Two Block Session)

Make Them Laugh: The Write Way!

QIAT Indicators for State Improvement Plans

Science Strategies and Resources

SOS! Strategies on Standards: Access to Music and Art for Everyone!

Special Needs Education in the Netherlands and the Use of ICT: "I Can Do It Myself!"

Teaching an Old Dog New Tricks

Teaching to the Standards in Math and Science for Students with Significant Disabilities with AT Adaptations

The Fun Factor Lab: Integrating Multimedia into Boardmaker Plus Activities (Two Block Session)

The Missing Link to Your Curriculum: Classroom Suite (Two Block Session)

The Writing Bin and Beyond

Time is the Issue

UDL + DI = Accessible Math

Unleash the Power of Acrobat 8 for Your Struggling Students

Unleash Your Curriculum! Support ALL Students and ALL Tiers of Intervention with Classroom Suite 4

Zien en Begrijpen: Project - Seeing and Understanding

Employment / Job Accommodation / Job Training

Neil Squire Society Uses Wimba Classroom to Provide Career Development Online to Reach More People with Disabilities

Functional Living Skills

Adapting Activities for Maximum Student Participation: Ideas for YOUR Classroom that Work in OURS (Two Block Session)

Read to Learn: A Guided Reading Curriculum in Print and Software Formats for Adolescents to Adults with Significant Developmental Disabilities, Including Autism

Self-Operated Digital Video/Audio Prompting with iPod and Zune Devices (Two Block Session)

Use of Video Prompting, Via a Portable DVD Player, Laptop Computer, or PDA as Self-Prompting Devices for Persons with Moderate Intellectual Disabilities

Using the PocketPhrase Framework to Facilitate Independence

Funding

Communicating in a Modern World, Part 1: Implications for Funding

Inclusion / Cooperative Learning

Acrobat-ics: Why Your School Needs Acrobat Professional

Equal Access: Universal Design of Instruction

Kurzweil 3000 and Classroom Suite: Invading General Education! Learn How to Combine the Use of Kurzweil 3000 and IntelliTools Classroom Suite to Make Curriculum Truly Accessible for All Students in the Classroom

Old Friends and New: Tools and Ideas You May Not Have Thought of Before (Two Block Session)

Reach Out to Your Pupils/Students at Home, or Wherever!

Ten Things You Need to Know About Visual Literacy (Two Block Session)

Keyboard Alternatives

Comparing Voice Recognition Technology Tools

Computer Accessibility for Those with Physical Impairments

Creating Launch Setups to Simplify the Computer Environment for Switch Users (Two Block Session)

Customizing Access to Mac OS X for Users with Physical Impairments (Two Block Session)

Gaming: The Key to Motivating Kids and Adolescents

Glimpse the Future of AT: Some of the Coolest Ideas that are Coming (iPhone, T9, Swype, and Much More)

Making Speech Commands Work Well on the Desktop: It's All About Steps

No Mouse, No Keyboard -- Full Computer Control: How is that Possible?

One Switch, Two Switch, Red Switch, Blue Switch

Setting Up and Working with Switch Interfaces (Two Block Session)

Switch Access 101: Mac OS X (Two Block Session)

Switch on Learning

Taking Switch Users to the Next Level: A Three-Step Approach

Language Development

Hot Topics for DD Adults: Let's Talk tango!

They Have a Core Vocabulary, Now They Need Sentences

Learning Styles

Catch that Spelling Error: Solutions Beyond the Word Processor

Club Model Expands Assistive Technology in Virginia District

"My AT Does Not Get Mad at Me" AT: The Student Perspective (Two Block Session)

legislation

AIM Implementation Guidelines for Michigan

Literacy

Accessible Literacy Learning from Penn State and Mayer-Johnson

Adapted PowerPoint Books Using Office 2007, in 10 Easy Steps (Two Block Session)

Alphabet Soup: The ABCs of Adapting Technology for Individuals with Learning Disabilities for Academic Success

Books Please

Exploring Co:Writer and Write:OutLoud

GhostReader: A New Approach to Deal with Reading and Writing Difficulties on the Mac

It Takes a Village: Creating Thematic Visuals and Accessible Literacy Activities

Literacy: A Lifetime of Reading

Measure It, Monitor It: Teacher Tools for Increasing Access to Print Through Use of Text-to-Speech Software

My Students Can't Write. Can They?

Promoting Literacy Through Supported Electronic Text for Students with Moderate Cognitive Disabilities

Promoting Wide Reading and Reading Growth for Adolescents with Significant Cognitive Impairment

Read&Write GOLD and Microsoft Word: The "Write" Tools for Any Student (Two Block Session)

Reading Buddies: Students Teaching Students Through Technology

Research, Review, and Write: Tools for Student Success

Supporting the Writing Process with Kurzweil 3000

Technology Solutions to Help Struggling Readers be Successful in Math

The MEville and WEville with Literacy Starters Program: Comprehensive

Literacy Instruction for Children with Significant Disabilities

The Price is Right - Free: Using Free Technology to Support Reading, Writing, and Communication Skills

Using the Read Naturally Software Edition (SE) to Improve Reading Fluency

Write All About It: Creating Writing Activities with Boardmaker Plus (Two Block Session)

Write Away: Composing Stories, Poems and Songs for Beginning Communicators

Write From the Start: Identifying and Using Alternative Pencils for Students with the Most Significant Disabilities, Not the Typical Paper-Pencil Activity! (Two Block Session)

Writing Across the Curriculum

Other

(Accessible Medium for Learning Disabled)
Bookshare.org: Books Without Barriers

(All Areas Independent Skills)
Reducing Prompt Dependency (Two Block Session)

(AT in Dramatic Arts)
Who's Been Switching at My House? Hansel and Gretel: An Adapted Play

(Construction/Switch Adaptation)
Better Than Duct Tape: Creativity and the Right Materials = Great, Low Cost AT

(Deaf/Hard of Hearing)
Utilizing Lifelike, 3-D Animated Sign Language Characters for the Instruction of K-12 Deaf Learners

(Demo/Loan/Training Centers)
Smooth Operators: Improving the Efficiency and Service Delivery of Your AT Center and Living to Tell About It

(Mouse Alternative)
Body Sensor Computer Control!

(Multisensory Environments)
Multi-Sensory Environments, Augmentative Communication Tools, and How Merging the Two Reaps Bigger Benefits

(Policy)
Accessible Instructional Materials 101: The Cliff Notes Version!

(Pre-service and In-service Training)

The Future is Today: A University Model to Teach Assistive Technology and Universal Design Throughout the Occupational Therapy Curriculum

(Social Communication)
Video Modeling Your Way to Success!

(Social Skills)
Success Stories: Using Video PowerPoints to Teach and Transform

(Systemic Implementation of AT)
Sustaining High Quality Implementation

(Training, Mouse Alternatives)
Computer Activity Progression for Pointing Skills

Professional Development

Collaboration Station and Transition Train: Joining Hands to Move Toward Independence

Data-Based Observations: Technology Makes It Easy, Efficient, and Effective

Every Move Counts in San Antonio (Two Block Session)

On-Going Professional Development: AbleNet Student Achievement Program

Online Resources for the AT Provider

Success with Speech Recognition

Ten Things Everyone Needs to Know About AT, AIM, RTI, and UDL in 2008

Web 2.0 Tools for the Assistive Technology Professional

Research

A Model of An Assistive Technology Program to Increase Pre-service Teachers' Awareness and Skills

Special Education Technology Research: What Have We Learned Lately?

We Have to Do WHAT? A Look at the IDEA Requirement that Interventions be Based on Peer Reviewed Research and How It Applies to AT

Seating / Positioning / Mobility

Sensory Processing, Sensory Integration, and Seating and Access (Two Block Session)

Technology Integration

Assistive Technology in the Theatre

Developing Communication in Young Adults via Multimedia Technology and

Assistive Technology

Empowering Students with the Boardmaker Software Family to Manage Behavior (Two Block Session)

Fractions, Decimals, and Percents: Yes They Can!

Hands-on: Accessible Books 'How To,' Endless Possibilities! (Two Block Session)

How Can We Use the Mind Tool Computer for Students with Learning Disabilities?

Intraweb and Dutch Special Education

Maximizing Classroom Technology to Support Written Language FUNdamentals

Offer More with Your AT Services Using Free, Online Blog Tools

Open Source Software: The Universals Design for Learning (UDL) and Response to Intervention (RTI) Solution ... Try Before You Buy

Tailor Made (Two Block Session)

Team Work: Characteristics of Effective Teams

The Magic of 3-D Immersive Environments

The Power and Potential of Working SMART with Special

Needs Populations

Tom and Jerry: Using the Power Wheelchair to Control the Computer Mouse

Universal Design and Differentiated Instruction: Helping Teachers Make the Connection

Video Games in Rehabilitation and Special Education: Creating Customized Video Games for Assistive Technology

Writing Success Anywhere, Anytime, with WriteOnline

You Can Take It with You! Running Applications from Flash Drives, iPods, and SD Cards

Transition

Improving the Transition Planning Process: The Top Ten Things Everyone Should Know About Transition and Fostering Independence (Two Block Session)

Commercial Exhibits

AAC Institute

AAC TechConnect

AbleLink Technologies

AbleNet

Adaptivation

Adaptive Computer Control Technologies

Adaptive Switch Laboratories

Advanced Multimedia Devices

AlphaSmart, A Renaissance Learning Brand

Applied Human Factors

Atomic Learning

Attainment Company

Augmentative Resources

Beacon-Ridge

Benetech / Bookshare.org

Blink Twice

C.J.T. Enterprises

Cambium Learning Technologies

Caring Technologies

Closing The Gap

Conover Co.

Creative Communicating

Crick Software

Cyrano Communicator

Daedalus Technologies

DO-IT/Courage Center/Pacer

Dolphin Computer Access

Don Johnston Inc.

DynaVox Technologies

E-Blocks USA

Enabling Devices

Enhanced Vision

EP Global Communications

Eye Response Technologies

Eyetech Digital Systems

Freedom Concepts

Freedom Scientific Learning Systems Group

GW Micro

HumanWare

HumanWare

Inclusive TLC Special Needs

InfoCor

Infogrip

Innovative Products (Mobility 4 Kids)

Judy Lynn Software

Laureate Learning Systems

LC Technologies/Eyegaze Systems

LiftVest USA

LightSPEED Technologies

MacSpeech

Madentec

Marblesoft - Simtech

Mayer-Johnson

Nasco

Natural Point

News-2-You

Origin Instruments

Prentke Romich

Quillsoft

Read Naturally

RJ Cooper & Assoc.

Saltillo Corp.

Silver Lining Multimedia

Skyblue Co., Ltd.

Slater Software

SoftTouch

Switch In Time

T & I (Technology and Integration)

Technology for Education

Texthelp Systems

The Great Talking Box Co.

The Writer Learning Systems

Tobii ATI

UCare

Ultrathera Technologies

Vcom3D

VisionCue

Words+

Conference Headquarters

Sheraton Bloomington Hotel, 7800 Normandale Blvd., Bloomington, Minnesota and the adjacent Hotel Sofitel, 5601 W. 78th St., Bloomington, Minnesota 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 available for Sheraton Bloomington Hotel, Country Inn & Suites Bloomington West and Crowne Plaza Minneapolis Airport West.

Hotel Reservations

Conference Site Hotels:

Sheraton Bloomington Hotel (952-835-7800), $149 single occupancy (South Tower) and $159 double occupancy (South Tower).

Hotel Sofitel (952-835-1900), $175 single occupancy and $185 double, triple, or quad occupancy.

Conference Off-site Hotels:

Country Inn & Suites Bloomington West (952-831-9595), $139 single or double occupancy.

Crowne Plaza Minneapolis Airport West (952-831-8000), $142 single or double occupancy.

On-line reservations are available at <www.closingthegap.com>.

Cancellation policy for all 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 11, 2008, with no cancellation penalty and your total deposit refunded to you. Any guest room cancelled after September 11, 2008, 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 NYVNX). Northwest hours are Monday through Friday, 7:30 am - 7:30 pm Central Daylight Time.

Assessible 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).

Off-site Hotel Shuttling

The off-site hotels - Country Inn & Suites Bloomington West and Crowne Plaza Minneapolis Airport West - will provide shuttling services during specified conference hours, to and from the conference site.

The shuttling procedures and schedules will be posted at all off-site hotels and near the Closing The Gap registration desks at the Sheraton Bloomington Hotel and Hotel Sofitel. The shuttling schedule will be posted on Closing The Gap's Web site at a later date.

Registration

Conference Fees:

The registration fee for the three-day conference (October 16-18) is $420 if received by Closing The Gap on or before September 11, 2008.

Groups of five or more from the same organization may deduct $20 for each registration (all registrations must be received by Closing The Gap at the same time).

Full-time students may register for $285. (Proof of full-time student status must accompany registration form.)

Parents may register for $285. (A letter describing your child's disability must accompany registration form.)

Presenters may register for $285.

Exhibitors may register for $285.

Late registration fee (for anyone) is $455 if received by Closing The Gap after September 11, 2008 and on or before October 2, 2008. All registrations (for anyone) received after October 2, 2008 will be $505.

A Certificate of Attendance is available upon request at no additional fee.

Graduate-level academic credit and CEUs are available.

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.

Preconference Workshop Fees:

All-day preconference workshops are scheduled for Tuesday and Wednesday, October 14-15, 2008 at a cost of $270 a day. Some 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.

Note: Some workshops fill quickly. Early registration is encouraged.

Confirmation:

All who register by October 2, 2008 will receive confirmation by mail.

Cancellation Policy:

Cancellations must be received in writing by Closing The Gap on or before October 1, 2008. All cancellations are subject to a $50 cancellation handling fee. Replacements are welcome and must be submitted in writing.

No refunds after October 1, 2008. Unpaid balances are due in full.

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.

2008 Closing The Gap Conference Registration Form

First name _____ Last name _____

Mailing address (home / work – please circle which)_____

_____

City_____ State / Country _____ Zip / 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? ❑ Web site ❑ Conference Brochure ❑ Friend / Colleague Other:_____

SPECIAL SERVICES (is reserved for persons with special needs only – must be requested by September 1, 2008)

❑ Adapted Conference Directory   ❑ MS DOS text file   ❑ Macintosh text file   Text file will be e-mailed.

❑ Sign interpreter (must indicate specific interpreter needs including time frame): _____

REGISTRATION FEE FOR CONFERENCE – OCTOBER 16-18, 2008 (Includes Commercial Exhibits Preview – Wednesday, October 15th, 5:30 pm - 8:00 pm)

$_____ Registration received on or before September 11, 2008 – $420

$_____ Group – Groups of five or more from the same organization may deduct $20 for each registration.
           (All group registrations must be received by Closing The Gap at the same time.) Group Discount is not applicable after September 11, 2008.

$_____ Full-time student – $285 (Proof of full-time student status must accompany registration form.)

$_____ Parent Rate – $285 (A letter describing your child's disability must accompany registration form.)

$_____ Presenter – $285 (Presentation title: _____)

$_____ Exhibitor – $285 (Company name and booth number: _____)
           (Exhibitor must be a scheduled representative for the booth to receive the discounted fee.)

$_____ Registration (for anyone) received on or before October 2, 2008 – $455

$_____ Registration (for anyone) received after October 2, 2008 – $505

SCHOLARSHIP ❑ 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. See page 54 for complete information.

PRECONFERENCE WORKSHOPS – OCTOBER 14 -15, 2008 (Includes Commercial Exhibits Preview – Wednesday, October 15th, 5:30 pm - 8:00 pm)

Please indicate Preconference Workshop choices by number.

$_____ Tuesday, October 14th - $270   1st choice PC- _____   2nd choice PC- _____

$_____ Wednesday, October 15th - $270   1st choice PC- _____   2nd choice PC- _____

           Participants in PC-15 *MUST* bring their own computer and a 500- to 800-word text document.
           I will bring my own computer for   ❑ PC-17 ❑ PC-23 ❑ I will use Closing The Gap's computer.

$_____ Materials Fee (Note: The materials fee equals the cost of the materials provided.)
           PC-2 has an additional $20 fee for materials.   PC-17 has an additional $35 fee for materials.
           PC-7 has an additional $30 fee for materials.   PC-18 has an additional $35 fee for materials.
           PC-10 has an additional $20 fee for materials.   PC-21 has an additional $15 fee for materials.
           PC-16 has an additional $30 fee for materials.   PC-24 has an additional $30 fee for materials.

ACADEMIC CREDIT (see pages 38-39 for complete information and requirements regarding academic credit)

$_____ Academic Credit Fee ❑ $115 for one semester credit   ❑ $230 for two semester credits   ❑ $345 for three semester credits

$_____ **CONFERENCE TOTAL** (Payable in U.S. Funds)

ADDITIONAL NON-CONFERENCE OPTIONS – ONLINE SOLUTIONS SUBSCRIPTION (See page 3 for more information)

$_____ One-year, Online Solutions Subscription – $50

$_____ One-year, Student Online Solutions Subscription (proof of enrollment required) – $40

$_____ Combination, One-year Print Subscription and Online Solutions Subscription – $75 (U.S. and Canada)
           ❑ Site licenses also available. Check here to have a Closing The Gap representative contact you.

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

   ❑ My check #_____ for $ _____ is enclosed.

   ❑ Please charge to my ❑ Visa ❑ MasterCard Account #_____

      Exp date _____ 3-digit security code _____Signature _____

      Cardholder address_____

   ❑ Please bill my agency or school district   PO # _____ (Purchase order must accompany registration

Cancellations must be received in writing by Closing The Gap on or before October 1, 2008. All cancellations are subject to a $50 cancellation handling fee.
No refunds after October 1, 2008. Unpaid balances are due in full. Replacements are welcome and must be submitted in writing.

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 2, 2008 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>.

A/S