Closing The Gap
Solutions

DISKOVERIES
*ENHANCING LITERACY SKILLS
THROUGH TECHNOLOGY*

COMMON AAC MYTHS
SORTING REALITY FROM UNTRUTH

TECHNOLOGY SUPPORTED LITERACY
*STUDENTS IN AN INCLUSION PROGRAM
E-MAIL, BLOG AND TWITTER*

**YOU MAY HAVE A Wii,
BUT Wii USE MORE**

RESITANCE IS FUTILE...
*ASSISTIVE TECHNOLOGY
AND STUDENTS WITH
LEARNING DISABILITIES*

LOW-TECH ACC
*REDISCOVERING
CLASSROOM OPTIONS*

PRODUCT SPOTLIGHTS

www.closingthegap.com
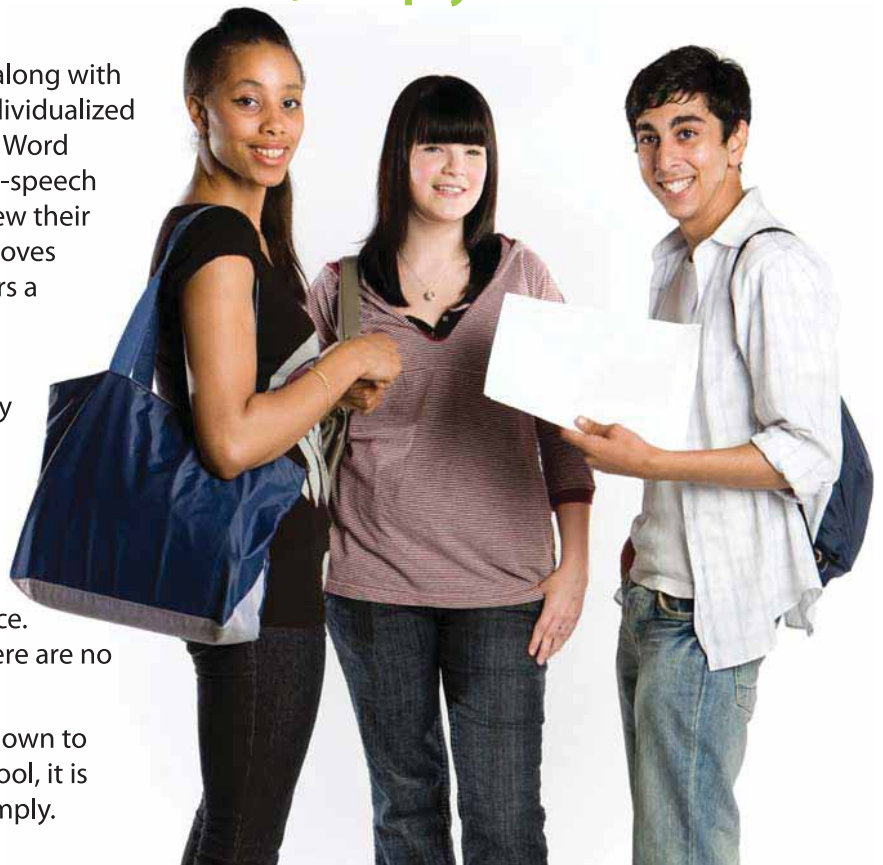
Announcing

Closing The Gap

WEBINARS

Beginning in April, 2010

- **Presented by some of the leading, most sought-after experts in the field of assistive technology.**

- **Events developed around your current and pressing assistive technology needs!**

Kicking off our series with ...

Managing all those images!

PRESENTER - DAN HERLIHY, ASSISTIVE TECHNOLOGY SPECIALIST

Thursday, April 22, 2010 • 3:00 pm - 4:00 pm CDT
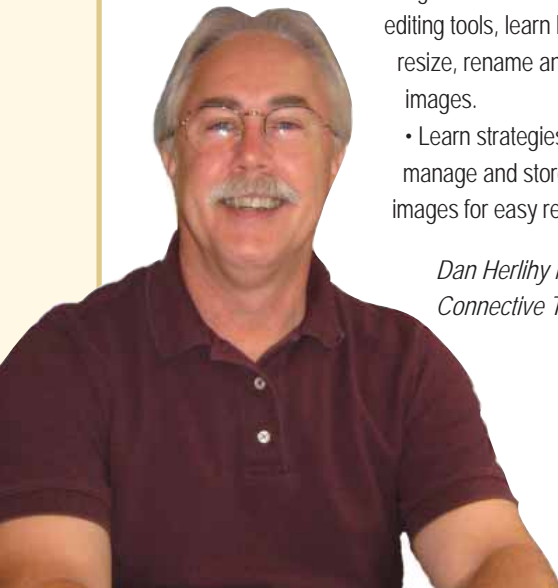
Registration Fee: $30 *(No cancellations, no refunds.)*

Digital cameras today take great photos, but consume a lot of disk space and oftentimes a lot of our time as we try to correct pictures that are too big or too small, too dark or too light, etc.

When importing photos, are they crashing your activity? Is renaming, resizing, editing and cropping your images painstakingly slow?

Are you wondering where image P00032.jpg was taken?

In this interactive Webinar, participants will learn the oftentimes intimidating side of image management and manipulation and creative methods to integrate your photos in classroom activities and curriculum.

Learning Outcomes:

- Using free software and editing tools, learn how to resize, rename and crop images.
- Learn strategies to manage and store your images for easy retrieval.

- Learn what your cameras' megapixel number means.
- Learn techniques to "batch process" all the photos in a folder at once.
- Discover new and creative ways to use digital cameras and photos in your classroom and inspire and motivate students with cool projects and activities.

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

Register Now!

Space is limited

UPCOMING WEBINARS

Closing The Gap will add to the breadth and scope of the Webinars and will showcase the knowledge, skills and insights of many experts in the field.

Visit our Web site regularly to learn more about upcoming events.

Share your thoughts, ideas and suggestions by contacting Closing The Gap as well!

CONTACT US

Closing The Gap
526 Main Street
P.O. Box 68
Henderson, MN 56044
Phone: 507-248-3294
Fax: 507-248-3810

www.closingthegap.com

Closing The Gap

April / May, 2010
Volume 29 – Number 2

Cover photo credit: Courage Center Camps

The right tool for the job...

My son Logan has autism. He cannot talk yet.

We invented the Logan ProxTalker to help meet my son's communication needs. There is nothing on the market quite like it. It is the first moveable picture communication device that actually talks. There are no levels or menus to hinder the simple logic of basic communication. Simply place the picture sound tags on the buttons and press – out come the words. There is an onboard microphone so words can be added or changed with ease using special function tags. It is built to last.

Whatever you do for your child, be sure to work closely with a team of professionals to develop the best program of treatment. Consult your Speech Therapist and your Assistive Technology Specialist to be sure you select the right tools for the job.

Sincerely,

Glen Dobbs, President
ProxTalker.com LLC

Leveraging technology to improve quality of life.

Patents Pending

Closing The Gap

www.closingthegap.com

DISKoveries

Enhancing Literacy Skills Through Technology

By Joan Tanenhaus

Webber HearBuilder Following Directions (Super Duper Publications: 800-277-8737, www.superduperinc.com) This is an excellent new software program designed to give students a systematic way to improve their auditory skills, especially those for following increasingly more complex directions. For both Macintosh and Windows, for Grades PreK to Grade 3 (ages 4-9), the program has a toy factory theme, which is present in all activities. There are five separate modules with 14-20 levels in each. In Basic Directions (The Tool Room), students follow one-step directions with one element through one step directions with six elements (i.e. click on the large blue dog that is spinning below the boat). In Sequential Directions (The toy Machine Room) they will follow two-step directions through five-step sequential directions (i.e. First, set the size to small. Second, set the temperature to hot. Third, set the shape to square. Then set the color to blue and finally press start.) In Quantitative and Special Directions (Toy Inspection Room), they will follow directions with a quantitative element (one or two) through following directions with a quantitative element (one, two, all, both, either, or, and, not, except, don't) or a spatial element (first, second, third, last, between), a size (small, large) and a color. In Temporal Directions (The Packing Room), they will follow two-step directions with the temporal term *before* in the second clause of the sentence (i.e. Put a train in the box before you put a duck in the box.) through two-step directions with the temporal terms *before* or *after* in the first or second clause of the sentence and a color (i.e., Before you put the blue frisbee in the box, put the red duck in the box.) In the final activity, Conditional Directions (The Shipping Room), they will follow directions that include one element (object) in a conditional cause (i.e. If a doll is in the box, put the box on the truck) through directions that include two conditions (one with negation) with two elements (color and object) in the first conditional clause and one element (size) in

each main clause (i.e. If a green doll is in the box, put the box on the large truck; if not, put the box on the small truck). Graphics and rewards are fun and motivating. There are options for adding background noise, which is presented as the directions are spoken. Rewards can be added. The recordkeeping options keep track of students' activities and track progress in each area. There are two versions of the program: Home and Professional Editions. The Professional Edition allows you to customize and print reports, and to print learning objectives. It also allows you to individualize each activity for each student by setting specific levels of difficulty based on measurable learning objectives. Great way for children to work on their listening and auditory skills. Go to the Super Duper Web site (www.superduperinc.com) and try out one activity from each of the five modules in this program and see for yourself

what a good program this is for teaching following directions.

Webber HearBuilder Phonological Awareness (Super Duper Publications: 800-277-8737, www.superduperinc.com) Another excellent new program, this one designed to help students improve phonological awareness and auditory processing skills and to increase awareness of words, syllables and phonemes. For both Macintosh and Windows, for Grades PreK to Grade 5 (ages 4-11), the program has a Rock Band theme, which is present in all activities. There are nine separate modules with nine to 45 levels in each: Sound Segmentation (identify one to two word phrases through count two to five words in a phrase) ; Syllable Blending (blend two to three syllables and identify the target word through identify the four to five syllable sequence that makes the target word); Syllable Segmentation (identify one to

Webber Interactive "WH" Questions Level 1 (Super Duper Publications).

two syllable words through count two to five syllables in a word); Rhyming (identify if two words rhyme through identify four words that rhyme out of 10 choices); Phoneme Blending (blend two to three phonemes (CV/CVC) to identify a word through identify the sequence of phonemes that makes the target word (CVCVC/CCVCC); Phoneme Segmentation (count the number of phonemes in CV/CVC words through iden-tify all of the phonemes in CVCVC/CCVCC words); Phoneme deletion (delete the initial phoneme of a word and identify the new word through delete the initial or final phoneme of a word and identify the new word); Phoneme Addition (Add a phoneme to the initial position of a word and identify the new word through add a phoneme to the initial or final position of a word and identify the new word) and Phoneme Manipulation (Substitute a phoneme in the initial position of a word and identify the new word through substitute a phoneme in the initial, medial or final position of word and identify the new word). A student masters the task at one level before progressing to the next, higher level. This assures that the student understands easier phonological awareness tasks before moving on to the more complex ones. As students complete each activity, a new member of the band appears on stage and can play their instrument. When all activities are complete, every band member will be on stage and will play their newest hit song. The program is well designed with graphics and themes that are very motivating to this age group. There are two editions, Home and Professional. The Professional Edition features the ability to individualize the program for each student by choosing specific settings and levels of difficulty for each activity. It has printable learning objectives for every level of each activity. It has progress monitoring and data tracking for an unlimited number of students, the option to customize and print student reports and the option of adding background noise at either low or high volume levels to give students with auditory figure-ground difficulties practice listening in noise. Go to the Super Duper Web site (www.superduperinc.com) and try out one activity from each of the nine modules in this program. This is an excellent program for teaching phonological awareness!

Webber Interactive "WH" Questions Level 1 - Sentence-Based Activities CD (Super Duper Publications: 800-277-8737, www.superduperinc.com) This program is designed to help children, pre-school and up, to ask and answer WH questions. There are 375 questions and answers divided into four sections. The first section, Learn About WH Questions, reviews the types of WH questions and presents color-coded symbols to help students remember them. The next section, Answer Simple WH Ques-tions, provides practice answering simple WH questions. The third section, Choose the Correct WH questions, provides practice matching an answer to the correct WH ques-tion. The final section, Answer WH Inference Questions, provides practice using a picture to infer the answer to a WH question. Diffi-culty level of the program can be adjusted by providing increased number of choices (two or four). The program automatically collects and tracks student data.

Webber Interactive "WH" Questions Level 2 - Story-Based Activities CD (Super Duper Publications: 800-277-8737, www.superduperinc.com) This program helps students practice and learn how to ask and answer WH questions in stories.

Webber HearBuilder Following Directions (Super Duper Publications).

Language Activities of Daily Living: My House (Laureate Learning).

They can also create and print a book about themselves. There are four separate lessons: (1)Learn about WH questions in a short tutorial that reviews the five types of WH questions; (2) Answer WH questions in stories that have two answer choices – 25 short stories are included; (3) Build a Story provides practice listening to the same 25 stories and answering WH questions that have five answer choices; and (4) Answering Personal WH questions (All About Me Book) helps the student create and print his/her own book by answering personal WH questions that relate directly to the student. Teachers can track and collect data and increase difficulty levels, as well as printing student data reports. Both of these WH Question programs are excellent for working on this skill.

Language Activities of Daily Living: My House, My School, My Town (Laureate Learning: 800- 562-6801, www.learneatelearning.com) The all new Sterling Editions for Macintosh and Windows of these three programs encourage users to explore and interact with functional vocabulary in three different settings. **My School** uses six scenes (cafeteria, classroom, gym, library, main entrance, music room); **My Town** uses the city, doctor's office, dentist's office, park, restaurant and suburban neighborhood. **My House** explores bathroom, bedroom, dining room, kitchen, laundry room, and living room. All program feature Optimized Intervention technology which automatically tailors instructional delivery to each student's unique needs. The programs can also be set up to encourage exploration or to test a student's knowledge. Two Discover activities allow the students to freely explore the items in each scene. When Discover Names is selected, the student selects an item and the computer provides the name of the item in a simple sentence. In Discover Functions, selecting an item causes the computer to name the item and describe its function or use. Two Identification activities ask the student to find and select specific items in a scene. In Identify Names, the computer asks the student to find items based on their names. In Identify Functions, the computer asks the student to find items based on a brief description of the item's use or function. Identification optionally includes a pretrial instruction and cueing to the correct response. Instructional feedback is always provided after a response. There are also two testing activities that include no instructional support. These are useful for evaluating a student's knowledge before and/or after using the program. . All items in all scenes can be explored or you can limit exploration to selected items and/or scenes. There is extensive data collection and analysis and a student file management tool that enables you to easily maintain comprehensive records of software use and student performance. Individual reports can be reviewed and the Report Writer can then be used to generate brief or detailed reports or to construct a custom report.

ChooseIt! Maker 2 (Inclusive Technology, 704-243-3622, www.inclusiveTLC.com) This program is designed to let users create decision making activities and quizzes. For both Macintosh and Windows, the new version of this program has auditory scanning, lets you select different text sizes and layouts. You can share the activities you create using a free player. Sample activities, images and sounds are included and you can add your own. You can have personalized reward music for added motivation. Also included is a library of over 1500 clipart style pictures, together with a selection of music and videos. The enclosed manual has step-by-step instructions on creating and saving new activities. This is an excellent authoring program that lets you create all kinds of matching and language activities . You can present activities with two, three, four or six choices, add music, sound effects or record from a microphone. Inclusive also has a selection of ChooseIt! Readymades. They have a Math Literacy collection that includes activities for: **Numeracy Key Stage 1** (21 activities for shape, space, positional words and measurements of capacity, length and weight); **Numeracy Foundation Stage** (shape, space and measure, including color, shapes, positional cords and measures, such as capacity, length, temperature, size and time); **Numeracy 0-5** (21 activities on comparing quantities, recognizing sets of objects, recognizing numerals, rote counting, adding one object to a set and taking away one object from a set); **Numeracy 5-10** (23 activities on comparing quantities, recognizing sets of objects, rote counting, recognizing numerals, sequence of numbers and simple addition); **Numeracy 0-100** (25 activities covering odd and even numbers, times tables, greater than and less then, doubling and halving); and **Numeracy Time** (37 activities for telling time by digital and analogue clocks, as well as general time related subjects). Great solution to create endless educational applications for students of all ages and all computer access needs.

From 1 To 100 (Inclusive Technology, 704-243-3622, www.inclusiveTLC.com) This is a collection of activities to practice math skills related to numbers 1-100. You can choose which range of numbers you want to work on and then go through different activities using only those numbers. The program records progress and includes activities to print out and use away from the computer. Some of the activities include: count money, compete a sequence of numerals, complete the sum (equation), a memory game, match the sum with the answer, a number crossword, darts to practice adding, addition of number with carrying and a sliding number puzzle.
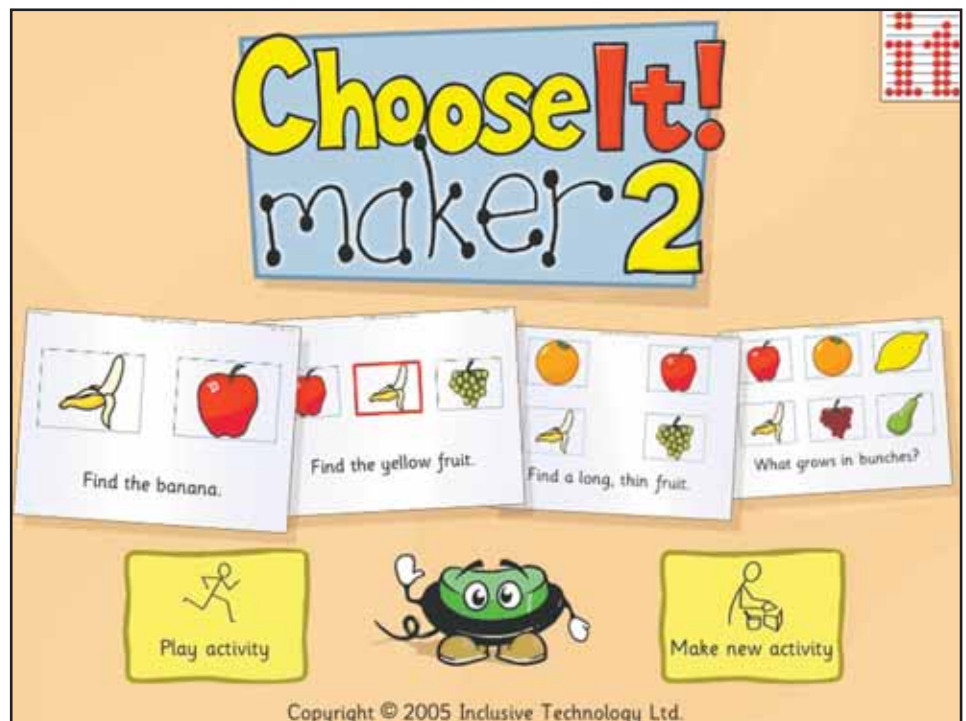
ChooseIt! Maker 2 (Inclusive Technology).

Giggles My Musical World (Leveractive: 866-488-7391, www.giggles.net) Although not specifically designed for special needs, the Giggles series of Macintosh and Windows programs are excellent cause and effect programs activated by pressing any key. There are 10 main activities: Play An Instrument (pick cello, violin, sax, trumpet, tuba, flute, clarinet, guitar or keyboard) and then, by pressing any key, play different notes and sounds from that instrument. Play the Drums (drums, bells, cymbals, bongos, congos, triangles, and more. (If the instrument has two parts, the keyboard is split in half to play both parts.) Barber Shop DooWop has two modes – play and music. In Play Mode, pressing any key activates random silly things in the barbershop. In Music modes, the Barbershop DooWop singers entertain you – press keys to change background colors. Other activities are Oopsy Orchestra (in play mode, pressing any key will activate random silly musical things in the orchestra), and Music mode (pressing any key selects orchestra players who then play their instruments). There are activities for Jukebox, Notes, Marching Band, Piano Peepers, Music of the Day and Night. There are four bonus activities and two music videos. Great graphics, great sound –great fun for young children. Other Giggles programs include: **My Animal Friends, Shapes**, **ABC's & 123's**, and **Nursery Rhymes**. If you go online, you can see product video tours for all of the programs and download trial versions. If you already own a full version of Giggles, you can download and install free additional activities.

Picture Context Reader (Merit Software: (800) 753-6488, www.meritsoftware.com) This program is designed to help beginning English language learners. It contains 216 illustrated vocabulary words and 432 questions. Students read and respond to complete sentences, learn the meaning of unfamiliar words (nouns) as they use illustrations and other words in the text as clues. Topics for context sentences are: The Body & Health, Family Relationships, The Home, Community Resources, Shopping, Cooking, Dining and Everyday Actions. Each unit of the program contains four parts: Tryout, Warm-up, Workout and Finals. The questions, answers and explanations of the programs can be spoken aloud by using the Merit Text Talker. Summary screens follow each round and a print option shows the student's progress to date, not just the results of an individual round.

Classroom Video Workshop Jr. (Apte: (847-866-1872, www.apte.com) This program is designed to help young students (ages 4-8) create and edit video stories in just minutes. They can add credits, sound, special effect and clip art from the program library and then export videos to e-mail, whiteboards, smart phones and more. Students can load a video file they have taken and, just by using a slider, change the beginning point and the ending point. Then they add a title and information about the "director." They have options to choose the color of the text and the background color, and can add a photo as background. There are six different effects for the video and six sound loops. (They can add their own sound track by importing it from the computer.) At the end, they can add credits and then export and share their stories. Students can create their own digital stories and video them on subjects such as reading, writing, science and math. There is a Teacher's Guide with suggestions for grade level projects, such as creating video profiles for each student, conducting interviews, telling a story and science and math activi-
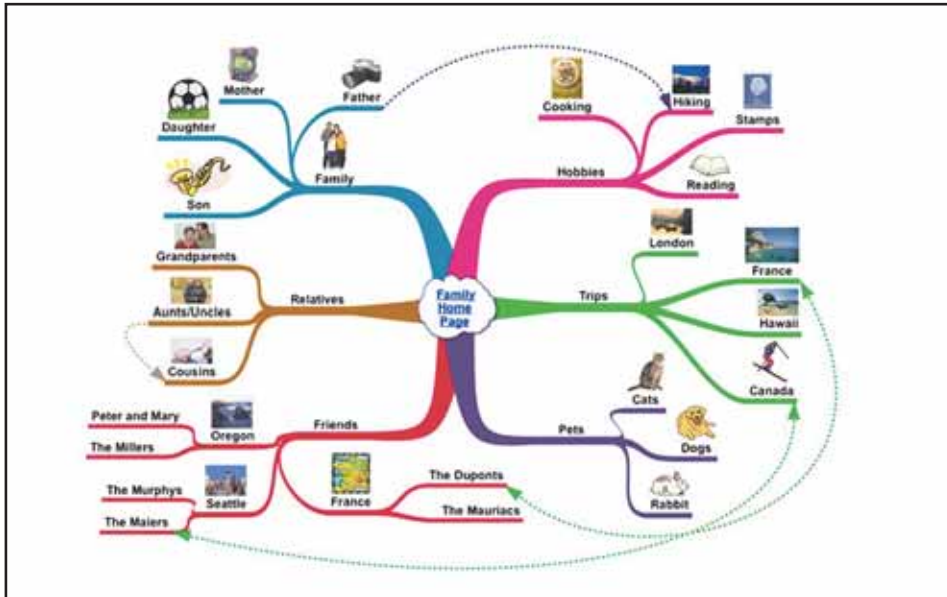
Inspiration Version 9 (Inspiration).

Classroom Video Workshop Jr. (Apte).

ties. Included also are project templates, worksheets and quizzes. A great way to integrate technology into your curriculum. Visit the Apte Web site to see a video demonstration of the program, showing step-by-step editing. You will be amazed at how simple it is – age appropriate for all ages. Also visit Apte's other website, the new www.schmixer.com. It's a great fun way to turn personal photos into a range of well-designed and cool games and greeting cards. You make and play your photo-games free or e-mail them to friends. Some of the games include: Spin your photos into a many-circle puzzle; create a photo trivia game on any topic; kick field goals to reveal the photos; play a dodge ball game; find six hidden clues in a photo; and exchange the faces in a photo for a very funny makeover.

Inspiration Version 9 (Inspiration: 800-877-4292, www.inspiration.com) Inspiration, for grades 6-12, is a diagramming and outlining tool that helps organize and develop ideas visually. It is useful for creating concept maps, webs, idea maps and other graphical organizers. Students can switch between a diagram view and an outline view. With built in symbols, photographs, templates and much more, it is an excellent tool for developing writing skills and enhancing language, social studies, science and much more. The new Inspiration 9 for Windows and Macintosh has many new features. Some of these are more visual tools that improve understanding, retention and communication (more symbols that support curriculum content); new map view to create mind maps; more capabilities for organizing, outlining and writing in the Outline view (link text in outlines, symbols in outline view, outlining tools, word count, sound and video notes and more); a new presentation manager to develop polished presentations (easy slide creation and editing, multimedia support, ready-made background theme, print options and more); the ability to export your documents directly to PDF and a free stand-alone player. Upgrades are available at a 55 percent savings until June 30, 2010. For a free 30-day trial of Inspiration 9, visit www.www.inspiration.com/freetrial.

Laptop Keyboard Cover (RJ Cooper: 1800-rjcooper, www.rjcooper.com) If you find it difficult to position a switch or other adaptive equipment while using a laptop computer, you will find this Laptop Keyboard Cover a perfect solution. It gets placed over the keyboard and you can then put the switch on top without any problems. The covers come in three different sizes – check out the illustrations and measurements on RJ's Web site. Great idea! While you are there, check out the **Stick and Suck Placement**

Disks if you need to place your switches so they don't move around.

Kidwinks DVDs (Kidwinks: www.kidwinksUSA.com) This is a series of DVDs designed to stimulate interest and awareness of words and language, developed by a speech patholigst, a music therapist and an art therapist. They contain short phrases and lots of repetition, as well as modeling ways to interact with children to encourage speech and language. In **Kidwinks Play**, the character actors demonstrate the use of typical words and actions while modleing ways of playing with different toys. There are segments on ball, bubbles, playdough, dolls and playground. Each of the sements contains simple words, sign, movements, repetition and fun music specifically designed to help childrn learn the words. In **Kidwinks Farm**, children practice words and sounds while learning about animals (pig, horse, cow, dog, duck and chicken) and the farm. In **Kidwinks Things That Go**, the children learn sights and sounds associated with an airplane, train, boat, car, bus and fire truck. The video characters introduce the vehicles to the children in an interactive way. All of the DVDs contain simple words, signs, movements, and lots of repetition and fun music to enhance language and sign learning in young children. Good series for young child.

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

Glow In The Dark Playfoam (Creativity for Kids : www.creativityforkids.com) Playfoam is great fun- squish it and squash it and mold it- it's clean, safe and non toxic and the re-moldable sculpting beads never dry out, so you can use them over and over again. The foam beads can be mixed to create new colors too. And this new kit has 5 bricks of Glow-in-the dark PlayFoam in assorted colors, with, glowing antennas, eyes, arms, feet, beads and other glow in the dark craft accessories. Great fun!

Designer Doggie (Creativity for Kids : www.creativityforkids.com) This adorable kit comes with a plush dog with velvety collar and heart charm (6.5 x 6 inches), a velvety dog purse, dog bone charm, dog cape and ribbon leash. Included also are adhesive backed felt shapes, bows and sparkly rhinestones to decorate the puppy purse, cape and collar. Just peel and press the decorations into place. When finished, tie on your puppy's cape, put her in the carrier and you are ready to go. Very easy to make and fun to play with after.

Ribbon and Felt Tote (Creativity for Kids : www.creativityforkids.com) This fun "no sew" tote can be used to go to a slumber party, dance class or to Grandma's house. Big enough to carry all essentials, this cute pink canvas tote can be decorated with no-sew, no-mess craft items, such as peel and stick felt shapes, self-adhesive pom poms and striped ribbon. Girls can also add their name to the self-stick designer label. Tote bag measures 13.5 inches high x 10.5 inches wide.

Sky Diver Paper Airplanes (Creativity for Kids : www.creativityforkids.com) With this kit, children can create 10 cool paper airplanes with a few simple folding techniques and the enclosed 10 special double-sided heavy duty patterned papers. There also are 48 sticker accents, punch out runways and a bonus sky diver with a parachute. For ages six and up.

Shrinky Dinks Deluxe (Creativity for Kids : www.creativityforkids.com) This is a complete Shrinky Dinks fun factory with plenty of supplies. There are 10 sheets of pre-printed Shrink film, charm bracelets, beads, greeting cards, gift tag, jewelry cord, hair clips and key chains, as well as eight colored pencils, a pencil sharpener and a hole puncher. Making the Shrinky Dinks is good fun – the shrink paper has a smooth side and a rough side. Children use the pencils to color in the designs on the rough side only. Then they cut out the pictures along the dotted lines and punch a hole at the top (if they want). Now they are ready to bake the Shrinky Dinks in a toaster oven or conventional oven, with adult supervision. The paper shrinks and hardens – then they can make all sorts of trinkets to wear and play with. For ages 7 and up.

Paint and Peel Window Art (Creativity for Kids : www.creativityforkids.com) Just paint, peel and press your designs against almost any glass surface or mirror to display them. The craft kit features eight bright window paints (non-toxic acrylic paint), black outliner and dozens of patterns to follow. Extras, like rhinestones and wiggly eyes, will accent the art. Children can also trace their favorite patterns or designs with the outline paint and then fill them in. Fun for all ages – create them and then display for all to see.

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). ∎

COMMON AAC MYTHS - SORTING REALITY FROM UNTRUTH

By Patti Murphy

Sorting reality from untruth in decades-old myths can be a complicated but enlightening part of finding the right augmentative and alternative communication (AAC) solutions at any point in time. This article highlights three common myths that may surface while making AAC decisions.

MYTH #1: AAC USE INTERFERES WITH THE DEVELOPMENT OR USE OF TYPICAL SPEECH

Speech-language pathologists and autism specialists often told Kellie Roberts that her son, Chad, stood a greater chance of developing his natural voice without AAC interventions.

"I didn't know any different for a long time," said Roberts of Canton, Georgia. The instructional approach emphasizing verbal speech used in the preschool program for children with autism that Chad attended did not suit him. "I wanted it to work so bad," Roberts said. "There was nothing I wanted more than to hear my child's voice."

While growing up, Chad experienced mixed results when using picture symbols to communicate. Inconsistency among symbol sets used at home, school and therapeutic settings often left him confused or angry, trumping the advantages of having a concrete tool for self-expression. The same sort of thing happened when Kellie Roberts cut pictures from groceries, like cereal boxes, so Chad could request favorite foods. Aggressive behaviors – like waking his mother and leading her by the hand to the refrigerator or car when he wanted to eat or go for a ride at night – became his primary way to get a point across. Then, at age 10, Chad used a speech-generating device, the DynaMyte 3100, for the first time. The pairing of its synthesized voice output with dynamic-display technology offered a calming effect and sense of instant gratification that helped him make sense of language and reduced stress in his interactions, Kellie Roberts said. Communication partners grew more respectful of the limited number of verbal approximations he developed while using it. "It took a very long time," she said. "He can't talk, but I know he can communicate."

Sue Schindler of Cincinnati, Ohio experienced similar breakthroughs as daughter Katy worked her way around communication challenges related to cerebral palsy and cognitive delays. The private speech therapy practice, where Katy received services as a toddler, upheld a philosophy that rewarded children for speaking conventionally. One incentive involved blowing bubbles. A therapist recited lines from a script – "Time for bubbles," "Open the lid," "Pour out the liquid," and "pull out the wand," for example. Parents repeated the lines, as each child was expected to do before performing each step of the drawn-out activity. Schindler was not sure that it held Katy's attention. Nor did she feel comfortable when therapists advised using the rewards system at home. "My feeling was that if a child has the ability to talk, they will. There would be no way that I would deny Katy a glass of milk because she couldn't properly pronounce it," said Schindler, a former special education teacher who now works as a disability advocate.

Early on, Katy and communication partners, who did not consistently understand her natural speech, benefited from a variety of AAC tools. She activated a talking frame, containing her picture, to break the ice with new people and uttered simple messages using static-display speech-generating devices. Another speech therapy group referred Katy to an AAC specialist who evaluated her for a device with a dynamic display. Katy, now 16, got a DynaMyte at age five and a DynaVox MT4 about five years later. Hearing Katy talk in synthesized utterances left Sue Schindler with a bittersweet feeling at first, but she knew the technology was just what her daughter needed. Before these AAC tools, and lacking a more reliable way, Katy had engaged potential communication partners through biting or pinching. "We never realized that her intent was communication versus hurting others," Sue Schindler said. "Once Katy had AAC in place, most of the very aggressive behaviors disappeared." Katy is at her best, she said, when she can let others know what motivates her – whether it's their company, an activity or a place. That, in turn, has motivated Katy to take ownership of the technology as her voice.

Whether high-tech, light-tech or unaided, AAC methods may promote meaningful interaction in unison with speech. "It is rarely that one or the other is used exclusively, said Kim Milstead Ingram, M.Ed., CCC-SLP, the lead speech-language pathologist at the State Supported Living Center in Austin, Texas. "It is the practitioner's job to clarify that AAC facilitates the acquisition of language, and the most natural and effective mode of communication for a particular individual."

Almost all parents new to AAC ask whether it will hurt their child's chances of talking and a surprising number of clinicians express doubt that it will help, said Vicki K. Clarke, M.S., CCC-SLP, president of Dynamic Therapy Associates, Inc., a Kennesaw, Georgia-based speech therapy practice. Some begin to change their minds when she tells them about research spanning more than two decades that substantiates the AAC-speech correlation. "The problem lies with parents and professionals who never ask the question and simply assume they know the answer."

People struggle with the link between AAC and speech for various reasons.

"Talking is one thing that parents really strive for because that need for normalcy is so important for the parent in early stages of coping with a diagnosis," said Tina Murphy, M.S., CCC-SLP, a speech-language pathologist and AAC specialist with Florida's Palm Beach County Schools. She also encounters teachers who expect children using devices in the primary grades to strive for grammatical perfection when composing a simple request for a cookie. "I often have to explain that these kids should be responding and requesting in the same manner as other children their developmental age," she said. "Even as adults, we don't usually respond in full sentences."

MYTH: #2 AAC HAS LITTLE, IF ANY, BENEFIT FOR INDIVIDUALS WITH PROFOUND INTELLECTUAL CHALLENGES

Questions this myth has long raised for researchers and practitioners include:

• Are there cognitive skill prerequisites for AAC use? (Examples: recognizing cause-and-effect relationships, understanding the means to an end and object permanence – knowing that objects exist even without sensory evidence, such as seeing, hearing or touching them.

• Can expectations influence outcomes when the person using AAC has intellectual challenges?

Underlying the questions is the presumption that AAC typically benefits those with greater intelligence, though AAC use (particularly light-tech tools and strategies) has become more common since the late 1980s for people believed to have profound cognitive disabilities. Newer research similarly notes the historical prevalence of the belief that such individuals benefited most from unaided communication systems while aided systems primarily benefited those with severe physical disabilities, with or without cognitive impairment (Hourcade, Everhart Pilotte, West, & Parette, 2004).

That way of thinking remains challenging today.

Clarke said sometimes AAC possibilities are discounted for such an individual even while physical challenges are accommodated. "So we give them the $20,000 wheelchair with the Cadillac features. This is the same child who we give the single message switch for communication. It just doesn't make sense that we give the least technology to the neediest individuals." Having just one option for conveying many thoughts can be demeaning, Clarke said.

Practical issues also come into play for someone with cognitive deficits. "They probably have less ability to problem solve and compensate for their communication difficulty without the advanced features of dynamic display devices," Clarke said, citing the example of auditory messages helping a person with weak visual processing skills to learn the corresponding visual images and ultimately, what a message means. Using motor memory to recall the location of images and reproduce messages also helps many people to learn their AAC systems, she said.

Like all communication, AAC is interdependent by nature. During our interactions, we know that others are listening when they ask questions or tell us to continue. Such responsiveness – along with cues for when and how to communicate – are especially important for augmented communicators with cognitive

issues, with support and prompting to facilitate interactions fading over time.

There may be a risk in over- or underestimating one's cognitive abilities. "Clicking a mouse button to change Web pages or to play a game is a lot different than formulating a thought in your head and finding the correct words on a device to relay that thought," Tina Murphy said. "I had a student who seemed to understand linking and categories and had a good vocabulary, but when it came right down to it, really did not have the ability to use any of that knowledge for communication purposes without being given a model or high-level prompts." Some students with autism, she said, demonstrate an affinity for technology but little concept of its potential role in social exchanges.

Students also surprise teachers in positive ways. "Give a child something to say and a way to say it and voila! Out comes communication. When that child realizes the power that they have once they start using a device, there is no end to what they might say," Murphy said.

The lessons of AAC may be limitless. "It's OK if the technology functions at a higher level than the individual. Sometimes it has to," Roberts said. "Chad will be learning for a very long time, as we all will."

Integrating the three devices Chad has used into everyday situations – from conversations with company at home to telling how his day went at the pizza shop or law office jobs he has through his high school-to-work transition program – has been a trial-and-error process, she said, but the mental retardation that complicates his autism does not block learning. As the DynaVox V, his current device, leads him to the words and phrases, his fingers are waiting to produce messages articulating what's on his mind.

She is perhaps most grateful for an intangible lesson of his AAC use. "The device makes him seem more typical and gives higher expectations to his communication partners."

Ingram echoes that thought. Once devices are implemented, the adults with intellectual challenges her team serves tend to find more opportunities to interact, with or without assistance in communication exchanges. Another improvement: "We often see decreases in negative behavior in people who use this equipment because they have the ability to express preferences and make choices."

MYTH #3: AAC TECHNOLOGY SOLVES ALL COMMUNICATION PROBLEMS

Katy Schindler is having one of her best years, communication-wise, thanks in great part to her seasoned support team at Princeton High School, said her mother. Conversations the new principal initiates with Katy's staff lend new appreciation for the technology that ensures Katy a voice.

This is not overnight success, Sue Schindler said, but a work in progress, likely to shatter without commitment from adults who make sure Katy uses her MT4 throughout the day. As a parent and in her career, Sue Schindler has often known school teams to encourage device use when students are hungry or doing class assignments, letting opportunities for social communication slip away. "I'll ask if they use their voices at times besides snack time or when they're doing work that requires high concentration. At that point, they start to understand the importance of communication device use."

Understanding that AAC in any form is a means, not the end, of language and communication skills acquisition (Romski & Sevcik, 2005) can be hard. Quick fixes may be popular, but technology and the human resources behind it are imperfect. It takes time for indi-

viduals and their communication partners to develop AAC skills and, usually, to accept their way of communicating. Those reliant on AAC gain linguistic, operational, social and strategic competencies considered necessary (Light, 1989) for successful communication at varying rates. Limits inherent to the technology – its speed, artificial nuances of even the more realistic and pleasant-sounding synthesized speech, and limited availability of vocabulary in some cases, for instance – present challenges. There are also inconsistencies from generation to generation of the technology to deal with, Schindler said.

Ingram and her team train communication partners to have realistic expectations as a friend or loved one adopts a device as their voice. These include allowing ample time for message completion, honoring the person's preferred level of assistance and responding to messages spoken through the device.

Transitions to AAC require a balanced perspective. "There is a fine line between realistic expectations and having high enough expectations that the child starts using it" and language skills are an important part of the equation, Murphy said. "A student in fifth grade should not always be communicating in one-word answers just because that is what others understand."

Clarke, who is Chad Roberts' speech therapist, said Chad may not understand all the vocabulary on his device, but understands the positive response he gets by conveying messages clearly. Kellie Roberts is thrilled with the habit of expressing likes and dislikes in full sentences her son has acquired through consistent device use. "I used to think that if you showed Chad a picture, then of course he would be able to communicate. But what made sense to me was different than what made sense to him." Conversation for its own sake is not so motivating for Chad, and he has trouble expressing himself when sick or angry. But meaningful communication is possible if you catch him before the anger escalates, Kellie Roberts said, an example of the human element that completes technological solutions. "Partners are important."

REFERENCES

Myths - AAC will keep someone from talking. DynaVox Mayer-Johnson Implementation Toolkit, Retrieved January 5, 2010 from www.dynavoxtech.com/training/toolkit/details.aspx?id=373 .

Myths - Too cognitively impaired to benefit from AAC. DynaVox Mayer-Johnson Implementation Toolkit, Retrieved February 2, 2010 from www.dynavoxtech.com/training/toolkit/details.aspx?id=423.

Myths – AAC will fix communication difficulties. DynaVox Mayer-Johnson Implementation Toolkit, Retrieved February 2, 2010 from www.dynavoxtech.com/training/toolkit/details.aspx?id=425.

Hourcade, J., Everhart Pilotte, T., West, E. & Parette, P. (2004). A history of augmentative and alternative communication for individuals with severe and profound disabilities. Focus on Autism and Other Developmental Disabilities, 19 (4) 235-244. Murphy, Patti. "An AAC retrospective: Part 2 – Myths, politics, culture and attitude." Closing the Gap, December 2008-January 2009, 12-14 .

Light, J. (1989). Toward a definition of communicative competence for individuals using augmentative and alternative communication systems. Augmentative and Alternative Communication, 5 (2), 137-144.

Romski, M. & Sevcik, R. (2005): Augmentative and alternative communication and early intervention: Myths and realities. Infants and Young Children 18 (3), 174-185.

AUTHOR INFORMATION

Speech-language pathologists Bethany Diener, M.S., CCC-SLP of DynaVox-Mayer Johnson, and Caryl Price, M.A. CCC-SLP and Janice M. Taylor, M.S., CCC-SLP of the State Supported Living Center in Austin, Texas also contributed to this article. For more information, contact the author, Patti Murphy, at DynaVox Mayer-Johnson, by e-mail at: patti.murphy@dynavoxtech.com. ∎

Technology Supported Literacy:
Students in an Inclusion Program E-mail, Blog, and Twitter

By Barbara Wollak

"Can I check my e-mail one more time, just in case my pen pal has written?" "Is it my turn to create a blog post?" These are examples of questions asked on a daily basis by students in the Inclusion Program at Highland Park Junior High, which is part of the Saint Paul (Minnesota) Public Schools. Students with the educational label of developmental cognitive disability, autism, other health impaired and/or physically impaired, all of whom are struggling readers and writers, are asking for opportunities to read and write using various technologies. Many of these students came to Highland with limited reading and writing skills.

Literacy can be defined simply as "reading and writing," the cognitive processes of comprehending and composing meaning in written text (Koppenhaver & Erickson, 2009). Not only do today's students need to learn to read and write with conventional texts and tools, they need skills to comprehend and compose on the World Wide Web. Due to technologies from social networking sites to blogs, the nature of literacy is changing. Borsheim, Mettitt, & Reed (2008) state, "Teachers who apply these technologies in their classrooms do more than motivate students with the latest cool tool; they prepare students with multiliteracies and for the realities of the technological world." Koppenhaver and Erickson (2007) stress the importance of motivation for struggling readers, as well as the importance of creating authentic purposes for reading and writing. Not only is the use of technology motivating and socially appropriate, it is giving Highland Park students real purposes for reading and writing and preparing these students for the 21st century.

For the past eight years, students in the Inclusion Program have been paired as e-mail pen pals with Dr. David Koppenhaver's undergraduate and graduate teacher education students at Appalachian State University (ASU) in North Carolina. Highland students use the free version of Gaggle e-mail (gaggle. net). Gaggle offers a free e-mail service for teachers that contains advertisement, as well a subscription "ad free" service. Gaggle has built-in speech support for reading e-mails. Highland students attach Co:Writer 6 when they are composing e-mails to give them spelling and grammar support (www. donjohnston.com/products/cowriter/ pricing_funding.html). Co:Writer 6 can be attached to anything on the computer that requires writing. Custom dictionaries are created that contain each e-pal's frequently

> "Not only do today's students need to learn to read and write with conventional texts and tools, they need skills to comprehend and compose on the World Wide Web."

used words as an additional support. An advantage of using this e-mail program is that the e-mail administrator can easily check and access all the students' e-mail, from one screen, to monitor frequency and content of the writing. Messages that contain question-able words or content are blocked by Gaggle but can be unblocked by the administrator.

Highland students are taught that e-mail is like a conversation. Students learn to begin each e-mail with a greeting, answer their e-pal's questions, ask a new question, and end with a closing. All e-mails are printed out for repeated readings and are then sent home. Comments, such as "Do you want to hear what MY pen pal had to say?" are often heard. Parents often report that at home, the printed e-mail is the first thing out of the backpack.

University students learn first-hand about the life and abilities of teens with disabilities as they provide a real audience and good written language models for the Highland students. The pre-service teachers are told to get to know their e-pals as individuals first, and that they will learn about each e-pal's disability later in the semester. As the semester progresses, students exchange digital pictures and video e-mails (eyejott. com), as well as free online greeting cards to celebrate an e-pal's birthday or even Ground Hog's Day.

E-mail is a tool that "levels the playing field." The Highland students are struggling writers and it may take a student 30 minutes to compose a simple e-mail. Unlike conversations, when a communication partner may become frustrated when someone using an augmentative communicate device (AAC) takes a long time to compose a message,

E-pals exchange electronic greeting cards.

Virtual Authors, www.hpjh.blogspot.com.

time is not a factor when writing an e-mail. One college e-pal was surprised to learn through the video e-mail that her e-pal was deaf. Deafness had never been part of any of their e-mail exchanges, only conversations about family, friends and favorite activities. Another college e-pal learned that her pen pal was nonverbal and used an AAC device connected to the computer to write.

During literacy group, Highland students read books about North Carolina to give them background knowledge about where their e-pals live. The Highland e-pals, in fact, know more about North Carolina than any other state, other than Minnesota. ASU students learn about the Mall of America and that Minnesota does not have mountains! When the Highland students heard that a hurricane "hit" North Carolina, they immediately were concerned about their e-pals' safety.

At the end of the semester, Highland and ASU students create an online book for each other. Often, the text structure of a book is used as a model. Courage by Bernard Waber, which makes "Courage is…" statements, was used as the text structure for "A Pen Pal … " (www.voicethread.com/#u7667.b92455.i470249). Students wrote text in PowerPoint and imported pictures of themselves and their e-pals to the PowerPoint presentation. The PowerPoint was uploaded into Voicethread and students read the text they had written through the video comment feature of Voicethread. Students asked to re-record their reading of the text multiple times. If these students had been asked by staff to re-read the text they had written, many would have protested, but because of the motivation to create a high quality book for their e-pal friends, the repeated readings were student directed. Repeated readings of

text is important for developing fluency and automatic word recognition (Koppenhaver & Erickson, 2007). Examples of what was written include "A pen pal is someone who is there for you even when you don't have anyone to talk to." and, "A pen pal is cool to have. A pen pal is someone you don't know at first but someone who becomes your friend." Beyond the opportunities for reading and writing, the social aspects of the friendships that have developed have been important to the Highland students. One Highland student asked, "Can I write to my pen pal? I'm having a bad day and I know my pen pal will listen." Students know that their e-pal relationship only lasts for a semester. As soon as a semester ends, students start asking, "How long will it be until I get a new pen pal?"

ASU students also comment on Virtual Authors (hpjh.blogspot.com) created with blogger.com. This is a blog with the purpose of providing additional opportunities for students to read, write, and communicate. Many Highland e-pals come to 7th grade with difficulty answering question that include "why." Examples of blog questions include "What is your favorite winter activity? Why?" Blog questions also reinforce skills necessary for reading comprehension, such as making predictions and compare/contrast (e.g., Make a prediction. When we will get our first four inches of snow?" and "How are you and your e-pal the same? How are you different?)" Questions generally are related to a current event, a topic about which the students have been reading, or a question of interest to a student or students. Students take turns helping to create the blog posts. Students create slideshows using free technologies that are embedded into the blog and that can be used to "activate background knowledge" for

the week's question. All of the technologies that are used are free and ones that can be embedded into Virtual Authors. Parents are all informed about the project and give permission to have their son's or daughter's picture posted on the blog. Only first names are used. ASU students, Highland teachers, and parents are encouraged to make comments on each blog post, providing Highland students with good language models.

In order to prevent issues with copyright, pictures for the below mentioned sites are all taken from flickr.com/creative commons
www.flickr.com/creativecommons

SITES THAT ARE USED TO CREATE SLIDESHOWS AND EMBEDDED INTO VIRTUAL AUTHORS

Animoto (www.animoto.com) – This site allows the user to create 30-second video slideshows consisting of text and pictures. The user can upload a music file or use Animoto's free music. The site then uses a computer to synchronize the pictures and text with the music.

Photoshow (www.photoshow.com/home/start) – This site allows the user to create a multimedia slideshow. Upload pictures and choose a theme. Music, captions and speech bubbles can be added. The free version is only "active" for 30 days.

Slide (www.slide.com) – This site allows the user to create a multimedia slideshow. The user selects a design and adds photos. Music, captions and special effects can also be added.

Smilebox (www.smilebox.com) – This site is sponsored by Hallmark. Add photos, videos, music and text to create an electronic greeting card slideshow.

Voicethread (www.voicethread.com/pricing/k12) – Voicethread is an award-winning site for digital storytelling. It allows the user to create a multimedia slide show that contains images, documents and videos and allows people to navigate pages and leave comments by using voice (with a microphone or telephone), text or video (via a webcam).

OTHER EMBEDDED SITES

Funface (www.funfacecam.com/fun) – Funface is an online photo booth that allows the user to capture funny portraits in "virtual costumes." The Highland e-pals used this application to create a post about Halloween.

Gabcast (www.gabcast.com/index.php) – Gabcast is a site that allows the user to create a podcast using a telephone.

Jibjab (www.sendables.jibjab.com) – Jibjab offers some free templates that allow students to upload their own photos into scenes like a snowball fight or an elf dance.

Dustin is reading what's on the blog before making his own comment.

AIM widgit (www.wimzi.aim.com) – AIM provides the ability to chat with anyone who is on the blog via instant messaging. It's not necessary to be an AIM usesr to use this feature.

Yackpack (www.yackpack.com/walki-etalkie) – Yackpack provides online chatting, like a walkie-talkie, between people who are online on the blog at the same time.

Statcounter (www.statcounter.com) – Statcounter is a free application that has been added to Virtual Authors. It allows teachers to connect the blog to math and geography. Students can study various graphs about number of visitors to the blog and even see a map of where each visitor lives.

vozMe (www.vozme.com/index.php?lang=en) – VozMe is a widget that will read any text and can convert that text to an mp3 file.

Highland students also have Twitter accounts, due to a suggestion by Dr. Koppenhaver. The Highland students and teachers in the Inclusion Program all "follow " each other's tweets. Students' tweets are protected so that any potential follower needs to gain permission before following a student. Because tweets are a maximum of 240 characters, the writing task is not overwhelming for students who find writing difficult. Co:Writer is also attached when a student writes a tweet. Many students also choose to follow groups like the Minnesota Wild or the Minnesota Vikings. These students are very motivated to make meaning out of the text from these tweets they receive.

The Internet is ever changing. New sites appear on a daily basis. It can be overwhelming for teachers to keep up with all the new sites and technologies. The benefits, however, are huge. Technologies that are motivating and socially appropriate can be used to help improve students' reading, writing and communication skills, as well as teaching them to be active participants in today's technology driven world.

REFERENCES

Borsheim, C., Merritt, K, & Reed, D. (2008). Beyond Technology for Technology's Sake: Advancing Multiliteracies in the Twenty-First Century. The Clearing House, 88-90.

Koppenhaver, D. & Erickson, K (2007). Literacy Camp at Camp Courage. Maple Lake, Minnesota.

Koppenhaver, D. & Erickson, K. (2009). Literacy in Individuals with ASDs Who Use AAC.In D. Beukelman & J. Reichle (Series Eds.) & P. Mirenda & T. Iacono (Vol. Eds,), Autism Spectrum Disorders and AAC (pp.385-412). Baltimore: PaulH. Brookes Publishing Co.

ABOUT THE AUTHOR

Barbara Wollak, M.S., CCC, is a speech and language pathologist and assistive technology specialist for the Saint Paul Public Schools. She also does consulting and trainings on literacy and technology-supported literacy. She can be contacted at bawollak@gmail.com. ∎

You may have a Wii, but Wii use more

By Steven Errante, Ynez Peterson, James Gunther and Patrick Doyle

We have the technology, but do you have the creativity to make it work? Divergent thinking is how most professionals who assist individuals with disabilities go about their everyday routine. With duct tape and foam rubber, we can create just about any type of gadget that will allow those who are functionally limited to be limitless. Technology can be manipulated to produce the same results. Wii (pun intended) must meld our ardent manipulation of physical materials with tech tape and adapt conventional video gaming to meet the needs of those with functional limits. We hope this article will persuade those who may be video gaming challenged to go virtual, or validate those who are already using gaming in their programs by presenting some new twists that you may not have come across.

NO FUNCTIONAL LIMIT LEFT BEHIND

Throughout this article, we will elaborate on ways we have found to have a high success rate for any individual, regardless of their physical and mental capacity. Highlighted in this article are three gaming formats that have been very successful for the individuals with disabilities that we interact with on a daily basis. We will illustrate that anyone can be a player with just a few adaptations. A finger movement, head tilt or body jerk can find triumph on the field of play. Even those who cannot speak will find ways to encourage teammates or smack talk their opponent. A person, who has coordination problems and is reluctant to participate in group activity because failure is inevitable, can find accomplishment through high percentage simulation practice.

How can my student or client find success when he or she cannot grasp and hold any object? Well, just read on and you will be amazed at what he or she can do.

WII IN REVIEW

Yes, the Wii game console has reinvigorated the gaming market, making two important changes. First, the chance to physically be part of the action has turned the couch potato gamer into a spud sportsman. Second, the reduction from multiple variations of button manipulation techniques to just three or fewer clicks has allowed a whole new group of gamers to fully enjoy video gaming. Young and young at heart are now finding success where teen techies used to rule. Some games only require a wave of the wireless controller, which one of this article's authors found to be a blessing. However, the excitement lies in how we were able to use this technology to bridge some gaps, make failure not an option and see cooperation where chaos used to reign.

Wii is not new to the rehab world, as there are many articles on its use and success in providing a more visual and interactive element to the exercise regiment. We have noted an increase in cooperative group play (for individuals with autism and/or ADHD), transfer of skill with replication of live play, and optimal learning with immediate success. This demonstrates that the Wii is a well-designed asset to any program. However, we would like to add that the Wii gaming system is not meant for everyone. Yes, we can do hand over hand assistance, and individuals who can grasp and exhibit arm movement can develop into an independent player. It is our contention, though, that there are others means to achieve gaming independence with just a blink of the eye.

THERE IS AN I IN EYETOY – INDEPENDENCE

The original, but short lived interactive video game, EyeToy by Sony, preceded the Wii, but never quite made the quantum leap of wide appeal. However, the simplicity of the EyeToy is what makes it far superior to the Wii, especially for individuals with moderate to severe disabilities. In fact, any student who has not been exposed to game controllers will find the ease of the EyeToy an excellent way to have immediate success and learn the basics of video gaming. The idea behind the EyeToy is that you become the controller, and a miniature camera (the size of a webcam) captures your image and transfers it onto the TV

Typical setup for PS2 EyeToy, allowing the student to participate fully in the boxing game.

screen, which places you literally in the middle of the action (Photo 1). The uniqueness of this application is that the slightest movement, along with the proximity to the camera, will allow an individual to play the game. The player sees himself/herself on the screen playing the game, which provides an additional incentive to participate. Here are some initial benefits we have found when introducing the following games to individuals with severe or profound disabilities. Range of motion exercises take on a new level of fun as we try to pop bubbles (Bubble Pop in EyeToy: Play 2), fight goblins (Ghost Catcher in EyeToy: Play) and clear the screen of soap suds (Wishi-Washi in EyeToy: Play) to see smiling faces. Our students do not use mirrors often, so when they see themselves on the TV screen, they are thrilled. The actual image of yourself, instead of a high tech computer generated personal avatar (Mii character in the Wii), is far superior in providing a proven visual cue that generates an intense level of alertness, which promotes learning.

The EyeToy, for us, has revitalized programming by providing a whole new avenue to engage our students in all aspects of education, therapy and life skills. The fact that they are more than just spectators, seeing themselves doing movements we want them to accomplish, is immeasurable. Each game requires a certain amount of body movement to be picked up by the camera in order to interact with the selected game. The amount of movement depends on the game selected. By moving the player closer to the camera, their image becomes larger and, therefore, a bigger target that allows for more contact when manipulating objects on the screen. This is similar to modifying a paddle in ping pong or bat in baseball. Even though minimal movement allows for ease of game play, actual sport and leisure skills patterns should be performed by players who are capable of those movements. This will allow for transfer learning to the actual sport/leisure activity.

We also found that the audio and visual displays encourage participation, increased time on task and were not overly stimulating to the player. When introducing game play for the first time, the therapist/teacher may incorporate verbal, physical and/or visual cues to encourage independent movement. Cues can be faded out once the player starts to independently engage in the game. We have seen a positive change in personality of individuals who developed a joy and/or fascination of interacting independently with the EyeToy. These positive behaviors have often been exhibited throughout their day. Success breeds success is aptly applied to what we have observed within our setting.

PUTTING THE SWITCH IN SWITCH HITTING – TECH TEAM BASEBALL

Super Switch Hitter is a full arcade style game with animation, graphics and sound all done on the computer. You can generate up to two teams with three players on each team. When in the field, you can control the pitcher, right outfielder and left outfielder; then, after you get the opposition to make three outs, it's your turn to bat. Here's why Super Switch Hitter has made us believers in giving students with limited functional movement a chance to play independently with a team concept (Photo 2).

A class of students with varied functional abilities can select captains and choose teammates to play in competitive games. The game duplicates baseball rules (strikes, outs and hits), sounds of the game (cheers, chatter between players), and controlling pitching, hitting and fielding the ball. A game can be up to nine innings long, depending on your schedule. A class may be able to form three or more teams, allowing for tournament play. Any switch, (pressure, puff, eye blink, etc.) can be used to operate the game. Connect up to six switches to an interface adapter to create the team experience (Photo 3). The game allows for each player's setting to be independently adjusted to the speed response time of the player. The switch can be placed wherever the student can best manipulate it, permitting the action to be controlled by the student. Action is totally controlled by the players. The click of a switch has the pitcher throw the ball, the batter swinging the bat and the fielder moving into position to make the play. For most, that would be fantastic.

By taking it one or two steps further, you can make the Super Switch Hitter a true baseball experience. Each player's name appears under his/her player on screen and is displayed when they come up to bat. Whether in the outfield or waiting to bat, we often hear baseball players encouraging their teammates or egging on their opponent. Each Super Switch Hit player can activate their switch to utter similar phrases if they are not pitching or hitting. Depending on how many innings selected, the seventh inning stretch song: "Take Me out to the Ball Game" will be played on the second to last inning for all to sing, creating a real life baseball game experience. The benefits, beyond the fun of the game, are found in persuading a reluctant switch user to try, improving cause and effect and increased scanning technique, and the optional use of a keyboard offers beneficial practice.

EXTREME GAMING ADAPTATIONS

Utilizing an LCD projector and a big screen or wall for enhanced play allows for more spectators to watch the action.

Crossover learning has been a positive product of collaborating between disciplines. We developed a curriculum unit that incorporates all facets of a sporting event that relates to each subject taught. A Super Switch Hitter Tournament was held for a class of high school students with multiple disabilities, with tickets sold and collected at the door, a concession stand (selling hot dogs, popcorn and drinks) and team designed banners. The game was connected and shown on a smart board to accommodate the large crowd watching the game. We had standing room only at the event, with teachers, therapists, staff and visitors cheering on the game. The students learned all about baseball rules and terms and how they relate to the subjects they are studying, even before the first pitch.

We suggest forming an in-class league by creating teams, having uniforms, keeping indi-
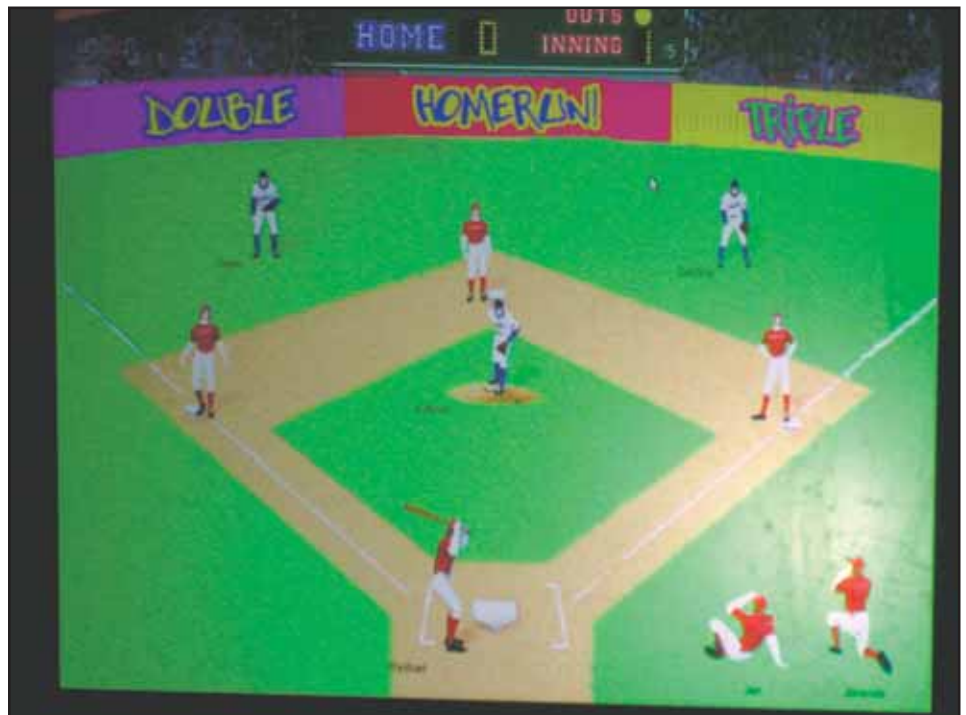
SuperSwitch Hitter from a student's view .

vidual stats, etc. Let's take it one step further and travel to another class, school or school district for some friendly competition. In addition, this is excellent preparation to attend an actual baseball game, whether it is the school's team or the local semi-pro or MLB team, which are all viable community based programs. Students will be able to pursue various out of school opportunities at home, in their neighborhood and the community.

BENEFITS OF CREATIVE VIDEO GAMING

• **Beyond Fun** – Our students have shown improvement in mobility, flexibility, strength, fitness levels, motor coordination and activities for daily living through active game play.

• **Additional Areas of Improvement** – Directionality, joystick control, switch activation, targeting, timing, grasping and releasing.

• **Peer Interaction** – Provides opportunity for non-disabled peers to interact, not as a helper, but as a friend playing the game.

• **Knowledgeable Spectators** – By playing in simulated games based on the actual sport, any individual can learn the basic rules and concepts while performing the sport skill. The student will be able to understand the game on TV or at a sporting event.

• **Budget Friendly** – The cost of these games can vary slightly from state to state, however the overall cost will still be affordable for any budget (we can attest to that).

Eye Toy software with camera can be bought online for as little as $20, and used PS2 gaming consoles can be found in thrift stores or, better yet, donated. We worked with several Virginia school districts, using information found in this article, to acquire PS2 consoles through school budget and community donations. Many people have upgraded to the PS3 console. Also, most schools are promoting Dance Dance Resolution that uses a PS2 console, so all you need is the software and camera.

Super Switch Hitter Web site: switchintime. com - Price is $75 (plus $5 shipping)

Virginia prices – Wii ($199.99 – Toys-R-Us), PS2 ($149.99 - Amazon.com), EyeToy w/Camera ($20-30 – Ebay.com).

• **The Best Job Perk Ever** – Seriously, we encourage trying out the games before introducing them to allow for appropriateness, making initial adaptations and creating a more successful experience. Telling your children that your playing the video game is work related is a real perk!

RESOURCE OF FREE GAMES FOR THE COMPUTER

• OneSwitch.org.uk - www.oneswitch.org. uk/4/games/0index.htm
• RJ Cooper & Associates, Inc - www.rjcooper. com
• Papunet - www.papunet.net/english
• Many links that we use are in the Games category of www.guest.portaportal.com/jgunthe and www.guest.portaportal.com/accessible-games

MAKING CONNECTIONS

Making connections can help you develop innovative strategies and form productive partnerships. By collaborating with the University of Dubuque in Iowa, a single switch adaptable game that our students love was developed. Local college and public schools' technology clubs may be able to develop something made just for your group. Some colleges offer game days. Assistive technology centers in your state may give ideas for adapting devices. In Virginia, we frequently use our local T-TAC (Virginia Department of Education's Training and Technical Assistance Center). The assistive technology department within your school system may be able to offer ideas. We are now getting requests and suggestions from our assistive technology department, ever since we requested their assistance. Everyone will benefit from developing a broader use of technology.

SPORTS CENTER MOMENTS

During an Eye Toy introduction, at one school, we had a Sports Center moment. We were giving each student a chance to tryout the boxing game. The student, who is quadriplegic, playing the game was using his arms the best he could, trying to outbox the computer generated opponent. A fellow student, who was watching but had no verbal speech, was visibly excited about his friends boxing display. All of a sudden we hear "Go Tony Go, Go Tony Go." The student watching spontaneously used his Dynavox to cheer on his friend!

Peer helpers and players with disabilities are now participating on a level playing field. Families are able to find commonality in doing an activity together without having to alter the game. The achievements illustrated in this article are just the tip of the iceberg, originating with the introduction of popular mainstream gaming so students with special needs could be part of the group.

Technology is opening new opportunities and we can harness it as an ally to provide the most comprehensive program for individuals with disabilities. We have seen a demo of Project Natal through X-box and are looking forward to the accessibility it can bring. We want to challenge you to try these gaming formats and come up with more ways to benefit individuals who cannot just trot out to the field and start playing. Hopefully, our success will give you the necessary data and awareness to promote these activities within your setting. Please contact us with your success stories or questions we might be able to assist you with on your virtual adventure.

ABOUT THE AUTHORS

Steven Errante is an Adapted Physical Education Specialist in Eagan, MN. He can be contacted by e-mail: serrante@yahoo.com

Ynez Peterson is an Occupational Therapist. She can be contacted at St. Mary's School for Disabled Children/SECEP, 6171 Kempsville Circle, Norfolk, VA 23502; e-mail: peterson.ynez@secep. net

James Gunther is an Adapted Physical Education Specialist for Norfolk Public Schools. He can be contacted by e-mail: jgunthe@nps.k12.va.us

Patrick Doyle is an Adapted Physical Education Teacher for Norfolk Public Schools. He can be contacted by e-mail: pdoyle@nps.k12.va.us. ∎

Students competing, using the switch interface (lower left corner) to allow several students to play at one time.

Resistance is Futile…

Assistive Technology and Students with Learning Disabilities

By Marlene McIntosh

Assistive technology (AT) can help students with learning disabilities to read, write and spell. Research shows that assistive technology can not only help these students in their academic pursuits, it can be a lifeline for them to obtain and maintain gainful employment (Hasselbring & Bausch, 2005). There are many teachers who have tried to use assistive technology with students with learning disabilities (LD), yet some of these students did not want – or even refused – to use it. Other students used the technology for a while; then they stopped using it altogether. This often causes some to believe that assistive technology is neither worth the cost nor the effort. However, research shows that assistive technology can be a lifeline for many students with LD. It can mean the difference between success and failure. So if this technology is so great, why do students resist using it?

I have worked with adults with learning disabilities for about 10 years in a Transition to College Program (TCPG) at Cambrian College. Students come to our program via various pathways. Some have graduated from high school but have never written tests, written essays, read textbooks, nor completed work independently; they feel under-prepared and not ready for postsecondary education. Others have dropped out of high school and want to return to further their education. A third group of students with LD have tried postsecondary education but were unable to complete it successfully. In our TCPG program, we work with these students and teach them how to use learning strategies and assistive technology in combination with school subjects, such as English and math. I will share some of my experiences with you and offer suggestions that I hope will be helpful to, not only foster student success, but to help you to convince students to use assistive technology – and keep using it!

REASONS WHY STUDENTS RESIST

Training

> "I hated the stuff. Some guy came in and sat in front of a computer for an hour clicking buttons and talking. Then, he left and there I was – alone with my computer. I had no clue what to do."
>
> *Brian, a student*

When I speak to students with LD who come to our college, many express their dislike of assistive technology. They dislike the voices in the AT programs and don't like to use the software. One of the key reasons is because the students were not trained properly. Most tell me that someone came to train them once for about an hour. Then, they were left on their own to use the program. One can only surmise that since students with LD have difficulty learning in the first place, a short training session is not a great idea. The students told me that they experienced more frustration getting the computer and software to work properly, or they didn't know what to do with it, so they stopped using it altogether.

Differences

> "I was told that I was stupid for so long that I started to believe it. I couldn't read without my computer, and there was no way I was going to use it when everyone was watching. I had to go to the back of the classroom to use the computer. It was humiliating. So I didn't use it."
>
> *Stewart, a student*

Another reason why students don't want to use assistive technology is because of the perception of differences. Students often do not want to stand out or appear different from their peers. This is especially true in high school where teenagers want to belong – they want to be part of a group. Individuality is frowned upon; uniqueness is avoided. Fitting in, belonging to cliques, and being one of the crowd are some of the things that teenagers want. So, if students with LD are using specialized computers or specialized software, they stand out. They are different.

Cheating

> "When I read with the computer, it does the reading for me. All I have to do is sit back and listen. Is that really reading? I'd like to be able to sit and read on my own. I do it, but I have to pick easy books to read otherwise I can't figure out what it means."
>
> *Patricia, a student*

Other students think that using a computer or AT means they are cheating. This, I believe, is because students with LD want to do things like everyone else. They want to be able to read with their eyes and write with their hands. They feel that reading with their ears and writing with their voice is not the same as what everyone else does, and they want to be like everyone else. This attitude also stems from what parents believe as well. I don't know how many times that I've heard this phrase from parents, "He'll get lazy if he reads with the computer." I believe, generally, that parents want their children to be able to do things as others do. Using a computer and specialized programs add another complicated factor to an already complicated learning difficulty. No one wants their child to have to struggle. Using a computer and spending extra time is another complication for parents who are already struggling trying to navigate the school system as it is. Thus, parents may try to discourage their children from doing things differently, and this attitude leads children to believe that unless they are able to read and write like other children do, they are cheating.

Amount of Effort

> "I'm articulate. I like school; I just don't like school work. I mean I love learning; I love reading and being in classes. I just hate writing and trying to organize myself and writing papers and stuff" (Higgins, Raskind, Goldberg, & Herman, 2002, p. 13).

Students with LD who use technology have a lot of work to do. The computer does NOT speed up the process. In fact, students with LD have to work much harder to complete assignments as do their non-disabled peers. The computer may allow them to complete the work, but it also adds time. Let me give you an example. A student with LD has a writing assignment. The student writes the assignment on paper or types it and gives it to me. I circle the errors, hand the paper back to the student, and the student rewrites or types it and gives it back to me. I check it again, and the student fixes it again. Voila! It's done. However, if students use assistive technology, here's how I get them to do their written assignment. The student types the assignment. The student then starts a program – let's say textHELP Read & Write. The student runs the spell check and corrects as many errors as he or she can. Then, the student reads and listens to each sentence to check for various errors: subject and verb agreement, fragments and run-ons, missing words, missing suffixes and prefixes, etc. Now, the student checks for homonym errors. As the student is working, the student will highlight any word that

he or she doesn't know how to fix. After that, the student will listen and read the entire document again to listen for flow and meaning. When this process is complete, the student hands the document to me for final proofreading. This entire process is quite lengthy, but it allows the student to learn to become a much more independent writer. However, it is a lot of work for the student – as you can see. Since the workload increases, some students feel that it's not worth the effort – the reward, the marks, nor the praise. They aren't going to use technology.

Negative Experiences

> "I think as I indicated to you, the most difficult time was fourth through eighth grade because the kids made fun of me" (Higgins, Raskind, Goldberg, & Herman, 2002, p. 7).

I have also noticed that some students refused to use assistive technology because of negative experiences they had in the past. For example, I have tried to get students to train to use Dragon NaturallySpeaking (voice recognition software). Some of my students have broken down and cried in my office because I was asking them to read aloud during the training phase. They spoke about painful experiences that they had as a child; they had been laughed at in class because they had to read out loud. Now, I was asking them to repeat this potentially embarrassing procedure again. I could feel their pain. It's difficult to get students to try something new if they are afraid of repercussions.

Stages of Grief

> "I want to be like everyone else. Why can't I read like my friends do? Why does this kind of thing have to happen to me? I'm so tired of being teased and struggling. I'm ready to give up."
>
> Tara, a student

When people find out they have a disability, they often go through similar stages of grief as one does when someone close to them dies: denial, anger, bargaining, depression and acceptance. They mourn the loss of "normalcy" and also deal with the impact of education on someone who has a learning disability. Psychologists suggest that when someone with a learning disability finally comes to terms with their disability, they enter into the stage of acceptance. They are then ready to learn how to cope with their disability, and only then can they open themselves up to using technology or any other compensatory strategies (Higgins, Raskind, Goldberg, & Herman, 2002). Now, if you look at this in the context of families coming to terms with a disability, you may often see the father at one stage, the mother at another and the child at still another stage! This can lead to conflict in the household as the family tries to determine how to "solve the problem" using the resources they have available to them. Introducing assistive technology at this stage can lead to more conflicts as the family works through the grieving process.

Some students with LD are in denial about their learning difficulties, as mentioned above. They believe that the marks they are getting in school are ok; they don't think that they have a problem. Often, these students will think that they're "better" than other students with LD. Because of these beliefs, these students will not use technology because they don't think they need it, whether they do or not. "I'm ok with a 65. There's nothing wrong with that."

SUGGESTIONS

I am going to approach this section by targeting three separate groups: students, parents and educators.

Students

> "I wrote my test using the software at school, and I got an A! I'm so excited! I've never gotten an A before!"
>
> Theresa, a student

Students must see the value that assistive technology makes in order for them to buy into its use. We can show its value to students with LD in several ways; here are some suggestions.

One – Show the student what difference AT makes. Use the student's current test or assignment marks. Teach them how to use the technology and compare the result with the next test or assignment mark. Did it improve? Why? Why not? What could the student do differently next time? Was it the right technology? Etc. This collaborative approach allows students to be part of the process, and because of this, they are more likely to try or continue to use technology because they will see the difference it makes.

Two – Combine the technology with a learning strategy that is suited for it. This integration makes the technology a useful and more effective tool – not just a computer sitting in the back of the classroom. This means more work upfront, but it will pay off when the student becomes more independent. For example, if a student is using Kurzweil 3000 for reading a textbook, the student will need to know what to study from the textbook. I will teach the student how to recognize what is important, and we'll use the highlighting feature to highlight that information. Then, the student will extract those highlights and study that information. The strategy that I might use for this is SQ3R (which can be mastered in grade 3) (Gilbert & Gilbert, 1992). Since the student can use the technology for more than just "reading," Kurzweil 3000 becomes a more valuable tool. When students with LD experience success and develop more independence, they are more likely to continue to use assistive technology.

Three – Normalize the technology. In our classroom, everyone learns how to use Kurzweil 3000. Everyone learns how to use Inspiration; everyone learns how to use textHELP Read & Write. We give everyone access to the tools. Since the technology is available to everyone, then no one person stands out. Students who don't need it, tend not to use it – after all, I mentioned before that it is more work to use it than not. Students who need it can use it and not stand out.

Four – Knowledge is power. Students with LD need to educate others about their LD, but they need to learn about it first. Teach all students in your class about learning disabilities. Most of my students were in shock to discover that students with LD have average to above average intelligence. "No – I'm not dumb. I have a learning disability that affects my ability to read. That's why I use Kurzweil 3000. It speeds up reading for me." This knowledge can help students to understand that they are not cheating. Many Learning Disability Associations have workshops that they offer to facilitate this training.

Parents

> "It's not that I don't want my son to do well. Lord knows that we've struggled together for a few years now. I just don't want him to have to rely on the computer. Isn't there anything else we can do? What if he studied more?"
>
> Frank, a parent

Parents may have difficulty understanding and accepting the fact that their children have a learning disability. This may result in parents rushing to the school and demanding that their children get computers and software and calculators and extra time and a reader and a scribe and… Again, the feelings that parents experience when coming to terms with the fact that their children have a learning disability are complicated. Parents may feel at a loss. What can they do to help/protect their child? They want something done NOW!

Other parents feel that if their children would just try harder, they would be ok. They are afraid that their children will become dependent on technology and will not be able to do "normal" things, like reading with their eyes or writing with a pen. They want their children to be like everyone else. They may want someone to blame because if their child "was taught properly" all of this would go away.

I believe that one way that we can help parents is by educating them. What is a learning disability? What tools are out there? What can they try? Who can they go to for help? Again, the Learning Disability Association is a great place to start. Also, there are assistive technology professionals in disability offices in postsecondary institutions that have resources and knowledge that they are more than willing to share.

Educators

> "Successful AT programs utilize preassessment, collaborative problem-solving, effective implementation, and systemic evaluation" (Marino, Marino, & Shaw, 2006, p.18).

All students with LD will not benefit by using the same software. This means that not all students with LD will benefit from using Premier Suites or Kurzweil 3000. It means that there must be several tools that students can have access to and a trained professional to help to determine the best fit. It means trial and error. It means changing software and tools as children with LD progress through the system. There are several tools that may be of use to determine which technology is useful in certain situations. One example of a good assessment tool is on the Special Education Technology – BC Website (SETBC): Making it Work: Effective Implementation of Assistive Technology Guide. Another is the Functional Evaluation for Assistive Technology tool (The FEAT). These tools give educators a systematic approach when choosing and evaluating tools that work – not just using what they have access to in their schools.

Here is another interesting observation from research. Students with LD are less likely to use technology if they sense that their teacher has a negative attitude towards its use (Levin & Wadmany, 2008). Often, out of a desire to help, we say things like "OK John, see if you can read it this time without the computer." What does that say to a child who struggles with reading and would do it without a computer if he could in the first place? It says - you aren't trying hard enough. I know that isn't what the teacher means, but that's how students may interpret that statement.

Also, general education teachers often rely on the special education professionals to provide training and support of classroom materials and technology. Today, we can't rely on one or two teachers in a school to take care of all students with LD. If every teacher uses technology, it is more likely that their students will use it. Of course, this requires teachers to get training, so they can use the software as well. One of the great things is that most of the assistive technology software today works with regular products like Microsoft Office and Corel WordPerfect. This means that if teachers type an assignment or test, there is no extra work. The student simply opens the file in the program and carries on from there – assuming the student knows how to use the software of course.

Where can educators get training? Most AT software manufacturers offer training. As well, there are many consultants who provide training. There are also training guides for many of the software programs to allow those who do not have access to training or who do not want to give up a day for training to learn on their own. Many AT software manufacturers have built in tutorials to their software or offer those online. My point is that the training opportunities are available.

How much training is required? Does the teacher need to become the expert? In a perfect world, I would say yes, but I'm trying to be realistic. Teachers should be familiar enough with the software to start it and do some minor trouble shooting, "I can't remember how to highlight," or "How do I start the spell check?" That amount of knowledge is sufficient to start. The more that students and teachers use the software together, the more "natural" it becomes. It no longer is an oddity; it becomes part of the process. In addition, both students and teachers will learn together and become experts.

Finally, we can try to understand what school is like for our students who have learning disabilities. I think this is the best thing that we can do for them. Kindness, empathy and time are things that we can give to our students who struggle. Reward the effort, not just the end product, but be truthful – don't give praise unless it's due.

CONCLUSION

Students with learning disabilities may require the use of assistive technology in order to allow them to become more independent and successful learners. However, students, parents and educators can be the actual hindrance in the implementation and continued use of technology. I'm hoping that this article has given you some useful suggestions that can help. We can't give up. Together, we all win!

REFERENCES

Gilbert, T. R, & Gilbert, M. B. (1992). Potential contributions of performance science to education. Journal of Applied Behavior Analysis, Monograph 7, 35-41.

Hasselbring, T., & Bausch, M. (2005). Assistive technologies for reading. Educational Leadership, 63(4), 72-75.

Higgins, E., Raskind, M., Goldberg, R., & Herman, K. (2002). Stages of acceptance of a learning disability: the impact of labeling. Learning Disability Quarterly, 25(1), 3.

Levin, T., & Wadmany, R. (2008, May). Teachers' views on factors affecting effective integration of information technology in the classroom: Developmental scenery. Journal of Technology & Teacher Education, 16(2), 233-263.

Marino, M., Marino, E., & Shaw, S. (2006). Making informed assistive technology decisions for students with high incidence disabilities. (Cover story). Teaching Exceptional Children, 38(6), 18-25.

National Professional Resources, Inc. (2006). The FEAT: Functional Evaluation for Assistive Technology. Retrieved on May 5, 2009 from the Natural Professional Resources Web site: www.nprinc.com/assist_tech/feat.htm.

SETBC. (2007). Making it work: Effective Implementation of Assistive Technology. Retrieved on May 5, 2009 from the SET BC Web site: www.setbc.org/setbc/topics/effective_implementation_of_assistive_technology.html.

ABOUT THE AUTHOR

Marlene McIntosh is a Learning Strategist/Assistive Technologist at Cambrian College, The Glenn Crombie Centre for disability services in Sudbury, Ontario who specializes in teaching students with learning disabilities at college. Marlene has written several manuals to facilitate the mastery of assistive technology that are currently being used at many colleges and universities across North America. She has also presented at many conferences and has developed and delivered learning strategy and assistive technology workshops across North America.

For more information or to contact Marlene McIntosh, please call 705-566-8101 extension 7219 or e-mail marlene.mcintosh@cambriancollege.ca. ∎

Low-Tech AAC:
Rediscovering Classroom Options

By Hannah Sites and Jamie Hayhurst-Marshall

Currently, the American Speech-Language-Hearing Association (ASHA) indicates that studies have found between eight and 12 people per 1,000 experience severe communication disorders, impairing their oral communication and requiring AAC (Castrogiovanni, 2008). Augmentative and alternative communication (AAC) may be used to assist individuals with communication disorders. It is not part of our mission to promote any one AAC device over another. Each of the examples for the following three categories is a small sample of the vast options that are available. Selection for specific AAC devices should be assessed on an individualized basis, based on the strengths and abilities of each student. AAC is grouped into three subgroups: no-tech, low-tech or high-tech.

No-tech AAC consists of sign language, gestures and communication boards. Tri-fold display boards, bi-fold communication choice folders, portable choice/display boards, portable object communicators, fabric flip charts, magnetic language and communication boards, communication notebooks and communication visual aids/aprons are a few examples of no-tech AAC, but not all the available options.

Low-tech AAC refers to digitized communication devices that store recorded messages and are retrieved by pushing a switch or button. Examples of low-tech AAC devices include, but are not limited to, leveled communication builders, 32-message communicators, Hip-Talk and Hip Talk Plus, Go-Talk 9+, switches, advanced auditory communicators and visually impaired communicators.

High-tech AAC encompasses a wide range of computerized devices featuring synthesized speech and multiple access methods. A sampling of high-tech AAC examples may include: DynaWrite, LightWriter, M3, V/Vmax, SpringBoard/SpringBoard Lite, Vantage/Vantage Lite, ECO-14, SpeakOut and ChatPC/ ChatPC-Silk.

It is important to note that AAC devices enhance and foster oral communication, not stifle it. When using an AAC device, individuals who have some speech should NOT stop using their residual speech because AAC is not a replacement for speech, but rather a reinforcement. An AAC system's primary purpose is to help facilitate individuals' communication in the most efficient and effect way possible for partic-

ipation in their daily lives. Children who have limitations in expressing themselves with oral communication are at risk for language delays, which negatively impact learning, social participation and quality of life. Using an AAC device will help to build phonological awareness promoting functional language and communication necessary for literacy development.

When exploring AAC options for school children, advocates should consider the student's individual needs for educational growth and

Fabric Flip Chart

Bi-Fold Communication Choice Folder

Communication Notebook

Examples of No-tech AAC.

inclusion in the classroom. At times, AAC devices are selected for students based purely on advanced technology without taking their personal strengths, weaknesses and preferences into consideration. In fact, some schools report an increase in spending for such high-tech devices. Sounds positive for students, right? But there is a decrease in the physical use of these items.

For an AAC device to be successful, it must be versatile, appealing and easy to operate. When environmental demands exceed individuals' capacities, a disability can severely limit a person from accomplishing a task. AAC devices decrease communicational demands and increase one's capacity for overcoming difficult situations. However, sometimes high-tech AAC devices are too complicated. Students may abandon their device because they do not understand how to operate it. When the demands needed for operation are greater than our capacity of knowledge about the device, students become frustrated. Students are not alone in their frustration with a complicated high-tech AAC device. A lack of support for prior education and training for SLPs and teachers is one of the most damaging factors for implementing high-tech AAC devices. Being labeled a nuisance or distraction to the classroom structure, the high-tech AAC device goes into a closet and its intended student is without any form of successful and useful communication. Because many high-tech AAC devices can be complex and overwhelming, low-tech AAC devices may serve as a permanent solution or learning system while in transition to a high-tech system.

During a transitional period using low-tech AAC devices, students are given the opportunity to continue learning in an inclusive classroom environment while discovering how to effectively operate an AAC system (Light, Page, Curran and Pitkin, 2007). The high cost of high-tech devices is a significant obstacle for many users. Some students have progressive disabilities and will benefit from an AAC device that has great versatility and available at a low cost, so supplemental AAC options can be afforded as time progresses. Fatigue presents another factor for consideration. Despite the reason for abandonment or rejection of high-tech AAC devices, if students ignore or refuse their devices, they are without an effective means for

communication, which limits social interactions with peers and teachers in general education classrooms.

When considering a low-tech AAC device, there is a world of possibilities for personalization without the worry of cost. To personalize a device, it is important to consider the age, personality, interests and individual preferences of each student the AAC device will be designed for. When children are given the opportunity to explore and create their own AAC devices, their preferences and priorities are slightly different from adults' and manufacturers'. Through vivid color schemes and characterization (naming their device), children emphasize concepts, such as "fun," which encourages all children to interact (Light, Page, Curran and Pitkin, 2007). Allowing students to pick the theme of their low-tech AAC device using popular themes, such as movies, music, TV, sports or famous

people, allows students to express themselves and participate with peers who have similar interests (Light, Page, Curran and Pitkin, 2007). Developing low-tech AAC devices allows students to actively engage in positive environments, therefore enhancing self-esteem. When AAC devices are highly flexible, they are able to adapt and grow with students' needs and abilities.

SLPs and teachers should actively integrate students using low-tech AAC into school activities. Communication boards or displays and communication books are examples of low-tech AAC devices that are easy and inexpensive to make. Provide time for all students in the classroom to develop their own low-tech AAC device and encourage them to use it throughout school activities. While desensitizing fellow students, it will lessen the stigma of using an AAC device in the classroom and help students become successful communication partners with students who use AAC devices every day. The most important point to consider is the student. SLPs must work together with teachers and families as a collaborative team, whose primary responsibility is the student's abilities and preferences. Success of any AAC device is based on the impact it has on the student's quality of life.

Students who use AAC devices constantly require reevaluation of their changing strengths, abilities and environments. With the money spent on one high-tech AAC device, a variety of low-tech AAC devices could be created or purchased to better accommodate students' infinite school interactions and activities at a lower cost. Because there is a wide range of low-tech AAC devices available, SLPs, teachers and students should strive to receive as much exposure to as many low-tech AAC devices as possible. Many low-tech AAC devices can be made out of supplies from craft stores, while others are bought as readymade systems. Each state offers an Assistive Technology Project that may also be able to help with the selection of devices. These Projects allow SLPs, teachers and students the opportunity to experiment, explore and have fun learning about what device(s) optimize students' communication abilities in a variety of environments.

RESOURCES

Castrogiovanni, Andrea. (2008). Communication facts: Special populations: Augmentative and alternative communication – 2008 Edition. Retrieved from www.asha.org/research/reports/aac.htm.

Downey, Debora; Daugherty, Peggy; Helt, Sharon; & Daugherty, Deanna. (2004, September). Integrating AAC into the classroom: Low-tech strategies. The ASHA Leader, 6-7, 36.

Light, Janice; Page, Rebecca; Curran, Jennifer; & Pitkin, Laura. (2007, December). Children's ideas for the design of AAC assistive technologies for young children with complex communication

needs. Augmentative Communication, 23(4), 274-287.

Wisniewski, Lech and Robert Sedlak. (1992, January). Assistive devices for students with disabilities. The Elementary School Journal. 92(3). 297-314.

ABOUT THE AUTHORS

Hannah Sites is a WVATS Graduate Assistant and Jamie Hayhurst-Marshall, ATP, CIRS, is Program Manager of WVATS.

CONTACT INFORMATION

For more information about this article, contact West Virginia Assistive Technology System at wvats@hsc.wvu.edu or 304-293-4692. ∎

32-Message Communicator

Cheap Talk 4

Go Talk 9+

Examples of Low-tech AAC.

M³

SpeakOut

SpringBoard Lite

Examples of High-tech AAC.

NEW Read:OutLoud 6 Text Reader

Provides Easy and Timely Access to Widest Range of eBook Formats for Struggling Readers and Students with Special Needs

Read:OutLoud 6 is an assistive technology software that makes it easy for students with disabilities to navigate the latest eBooks and comprehend text in a multi-modal digital learning environment. The software makes the Internet accessible and includes a robust set of reading tools to support below-grade level readers. A new human sounding speech engine provides the latest Acapela voices to read text aloud to support auditory learners.

In today's schools, general education curriculum is not readily available in accessible formats for students with cognitive, physical or print disabilities, or for a student with a reading disability, such as dyslexia. This makes it nearly impossible for these students to read and comprehend paper-based textbooks and required education materials. An education movement is now under way to make general curriculum timely and accessible for students with disabilities. As digital textbooks and eBooks become more widespread in schools and homes, text readers will be required to download and read a variety of digital formats. Read:OutLoud 6 supports a broad range of digital formats. It is the only top text reader in the education marketplace that can open NIMAS, (National Instructional Materials Accessibility Standard), DAISY, Bookshare and PDF files without conversion and fully supports RTF, TXT, XML and HTML files.

Read:OutLoud 6 will help U.S. schools comply with the accessible instructional materials requirement found in IDEA 2004 (Individuals with Disabilities Education Act). IDEA 2004 calls for local education agencies (LEAs) and state education agencies (SEAs) to provide timely access to the general education curriculum for students with print and physical disabilities, including those with IEPs (Individual Education Plans) and 504 plans.

In 2008, Bookshare, a non-profit organization, partially funded through the U.S. DOE, Office of Special Education Programs (OSEP) selected Read:OutLoud to access the eBooks and periodicals stored in its online library. Today, 65,000 Bookshare members can use a free version of Read:OutLoud to access over 60,000 accessible books. This includes digital textbook files from the NIMAC. (National Instructional Materials Access Center)

Read:OutLoud is an approved reading accommodation in many states. Last year, Indiana and Virginia, through the ICAM (Indiana Center for Accessible Materials) and GMU (George Mason University, Virginia) chose Read:OutLoud to be made available to every school as part of a statewide reading access initiative.

Dr. Cheryl Temple, Program Manager of Assistive Technology Services at Fairfax County Public Schools, VA, said, "In our district, students with special needs have used Read:OutLoud for years. Today, all Virginia students with IEPs have access to this reading software at school and at home. Teachers have told me that with Read:OutLoud and accessible eBooks their students are more motivated to read and to study independently, compared to reading just traditional printed books."

Read:OutLoud 6 is known for its reading comprehension templates that support strategies recommended by the National Reading Panel and Reading Next Report. Templates include reading strategies like KWL, Compare and Contrast, SQ3R, Cause and Effect, and Vocabulary Study.

Students use the assistive technology software to highlight information, take notes, look up definitions in a talking dictionary and accurately cite research sources through a bibliographer. Reading strategies and instructional supports align with state standards to help students capture main ideas and study for tests.

"Making curriculum accessible for students with disabilities doesn't have to be difficult," said Ben Johnston, Director of Marketing for Don Johnston, Inc. "Printed textbooks have made the curriculum inaccessible for decades. School administrators are now evaluating their American Recovery and Reinvestment Act (ARRA) funds to make their curricula accessible and there is clear support from our government to use these funds to purchase assistive technologies. An accessible curriculum can make all the difference for these students."

Read:OutLoud 6 runs on Mac OS 10.4+, Windows XP, Vista and Windows 7. Single computer licenses start at $299. Unlimited Site Licenses cost $1,039 to $1,299 per building and includes take-home privileges for students and teachers. The Unlimited Site License installs on every computer in a building, making digital books and education materials accessible to any student. A 'Train-in-30' tutorial guides students and teachers to be up and running in just 30 minutes.

RESOURCE LINKS

Watch Read:OutLoud Demo – www.donjohnston.com/readoutloud

Research Papers about Accessible Text Readers – www.donjohnston.com/products/read_outloud/research.html

Case Study: Spotswood NJ School District Sees Value in Assistive Technologies – www.donjohnston.com/pdf/solo/SOLO_Technology_tools_Case_Study.pdf

Read:OutLoud Train-in-30 Tutorial – www.donjohnston.com/pdf/solo6/ReadOutLoud_6_Train-in-30.pdf

For more information visit: www.donjohnston.com. ∎

Alexicom Tech Takes Augmentative Communication to "The Cloud"

Alexicom Tech is proud to introduce the world's first Internet-based Augmentative and Alternative Communication (AAC) system. This system is extremely accessible and opens up a world of opportunity for many people who cannot afford a dedicated AAC device or who want more portability from their AAC system. Designed by parents of an AAC user and speech-language pathologists, Alexicom is extremely user friendly and has the ability to grow with the user as his or her needs change.

Alexicom uses cloud computing technology to provide the most versatile AAC option available today – Alexicom works on PCs and Macs, desktops and laptops, touch screens, Smartboards, iPhone or iPod touch, etc., anywhere, at any time. Access your AAC pages online or publish your pages for offline use on any standard Web browser. This cloud-based system gives you access to our pre-made public library of communication pages or you can create your own pages. Easily import pictures directly from the Web or from your own albums. Adjust the number of cells on a page and/or the size of the cells to fit your needs. We offer 20 AT&T Natural Voices for clear speech output in English, Spanish and three other languages.

Alexicom Tech is intended for users of all ages and abilities. Alexicom AAC pages can be navigated using most accessibility input devices and by way of two-switch step scanning. The Alexicom service is very affordable at $40 per month with no long-term contracts. Discounts are available for longer enrollment periods and for multiple users.

Alexicom is accessible, versatile, and affordable! Register now for a 45-day free trial of our sample pages or subscribe for immediate access to our authoring tools.

For more information, visit our Web site, www.alexicomtech.com, e-mail: <support@alexicomtech.com>, call: 602-696-6421, or follow us on Facebook. ∎

JSET Research Finds Increased Test Scores Using WYNN

The Learning Systems Group (LSG) of Freedom Scientific, Inc., developer of literacy software designed to create custom learning environments for all students, announced that a new article published in the Journal of Special Education Technology (JSET) (www.tamcec.org/jset) found statistically significant test gains for students using WYNN's study tools. The article by Mark Horney, Lynne Anderson-Inman, and others, titled "Exploring the Effects of Digital Note Taking on Student Comprehension of Science Texts," appears in the current issue of JSET.

BOTH GENERAL EDUCATION AND SPECIAL EDUCATION STUDENTS SHOW GAINS

The article describes a study done in 2007 and 2008 to investigate the effects of text notes and voice notes on the comprehension of science texts by fifth grade students. There were both special education and regular education students in the study. Researchers were able to evaluate results for each group individually, and for both groups combined.

The results showed that both groups made some improvements in their test scores after using WYNN's study tools. The most statistically significant gains were made by general education students, while special education students also made statistically significant gains. Roberta Brosnahan, Vice President and General Manager of the Learning Systems Group, says, "Note-taking is a critical study strategy for students to master. We are delighted that the research shows WYNN's note-taking tools to be effective study aids for students."

The study divided students into two groups. One group used WYNN's Voice Notes feature to summarize the science material they had read, while the other group used WYNN's Text Notes. The results showed that, although students made gains using both tools, most students made greater test gains using Voice Notes. The study concluded, "These findings suggest that recording voice notes is at least as effective as typing text notes, and perhaps more effective for some students in some situations."

WYNN'S VOICE NOTES FIRST IN THE FIELD

WYNN was the first program to design Voice Notes as a feature for students and teachers to use in classrooms. WYNN's Voice Notes feature allows users to record spoken messages tied to specific areas of text. This feature is designed as a tool to allow students to verbalize their thoughts. For some students, verbal expression is preferable to aid in communicating the comprehension of written materials. Voice notes can scaffold organization and summarization skills in expressive language tasks.

Additionally, teachers can create Voice Notes containing questions, messages or assignments for students, providing a more interactive reading environment. Students can use Voice Notes to record answers to the teacher's questions, create reminders, summarize or paraphrase or ask questions about the text.

Text Notes allow users to create written annotations for text material. Text Notes can be instrumental in helping students remember important material. "The combination of Text Notes and Voice Notes creates a powerful one-two punch to benefit both visual and auditory learners," said Brosnahan. These features exemplify WYNN's motto: WYNN helps users to use individual strengths to strengthen their weaknesses.

Visit www.freedomscientific.com/lsg for more information. ∎

HumanWare Launches the BrailleNote Apex

HumanWare has launched the BrailleNote Apex, the thinnest and lightest notetaker especially for professionals and students who are blind

Powerful and sleek at just 2 cm (0.78") thick and weighing only 812 grams (1.8 lbs), the BrailleNote Apex is designed for portability and functionality. Intelligent ergonomics have always been the benchmark of HumanWare products, and the BrailleNote Apex performs with comfort and agility. A comfortable full-size Braille keyboard makes notetaking quick and easy, while HumanWare's signature thumb keys make extensive reading effortless.

"As a proud supporter of Braille literacy, HumanWare is committed to developing products that help blind people to fully participate in the quickly evolving, digital world around them. Because we believe that communication is the key to success, we strive to put every opportunity in the hands of our customers with Braille products that meet their needs every day. The BrailleNote Apex puts the power of digital communication at everyone's fingertips," says Gilles Pepin, CEO of HumanWare.

Added horsepower and multiple storage options define the BrailleNote Apex's productivity with its 8 GB of internal memory and support for high capacity SDHC cards, along with four high-speed USB 2.0 ports, built-in Wi-Fi, Ethernet and Bluetooth.

The advanced technology is driven by the new Windows CE 6.0 operating system, which enables the expansion of KeySoft, a comprehensive, user-friendly suite of productivity applications with feature-rich content that is 100 percent accessible. This powerful software combination will facilitate future enhancements and ongoing improvements in response to user requests.

Almost 10 years after the introduction of the BrailleNote, the revolutionary BrailleNote Apex is the ninth note-taking device in a line of products that has been helping people who are blind to be a vital part of the global information age since 2000.

For the latest news and information about BrailleNote products, subscribe to the BrailleNote Newswire at www.humanware.com. And for more details about the BrailleNote Apex, visit www.humanware.com/apex. ■

28th *Annual* CONFERENCE

Closing The Gap
OCTOBER 21-23, 2010

Preconference Workshops
October 19-20, 2010
MINNEAPOLIS, MINNESOTA

The best educational assistive technology conference in North America

Assistive Technology in Special Education and Rehabilitation

A TRADITION OF EXCELLENCE
Over the years, the annual Closing The Gap Conference has become known as the best educational assistive technology conference in North America.

Through shared best practices and research, networking, training, hands-on opportunities and an expansive exhibit hall, participants have found information, strategies and products that have proven beneficial and, oftentimes, unsurpassed for use in their work and in their lives.

The 28th Annual Conference runs Tuesday, October 19th through Saturday, October 23rd and is held in Minneapolis, Minnesota.

Preconference workshops are scheduled for Tuesday and Wednesday, October 19th and 20th, and the Conference officially begins with a preview of the exhibits on Wednesday evening, followed by three days of presentations, hands-on labs and exhibitions.

Varied levels of participation are available, with registration options listed on page 37.

Inside the next few pages, you will find detailed listings of the 24 all-day preconference workshops, exhibitors contracted to date and academic credit/CEU, air travel, hotel and registration information. The titles and descriptions of the over 200 one- and two-hour presentations, including hands-on labs and iPod workshops, and the additional contracted exhibitors will be available online and in print in August.

With multiple registration options available, numerous and diverse discounts, group savings and preconference workshop bundling, we invite you to participate and encourage you to bring your team!

Closing The Gap promises to work hard to insure that the content and learning opportunities are many, varied and exceptional throughout the conference week.

LEARN MORE AT WWW.CLOSINGTHEGAP.COM

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

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

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

COMMERCIAL EXHIBITS
An impressive and varied scope of AT products will be on display and will range from low tech to high tech and represent solutions for all disabilities and ages. Daily regular AND exclusive hours are scheduled to give participants quality time to explore, try, learn and ask questions, first-hand and face-to-face.

A second brochure detailing the over 200 presentations will be available on or about August 1, 2010. Details will also be posted at our Web site.

A TRADITION OF EXCELLENCE
28 years of being the leader in AT resources and training.

WHY YOU SHOULD ATTEND
Assistive technology resources and training at its very best.

ACADEMIC CREDIT AND CEUS
Attend all five days and earn up to three academic credits and 3.4 CEUs.

EXCEPTIONAL CONTENT
Closing The Gap is recognized by many as the best educational AT conference in North America.

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

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

WHY ATTEND? Participants will have numerous and unique opportunities to learn, first-hand, from experts in the field, network, ask questions, and see and try the latest AT products and strategies available today.

CONFERENCE SCHEDULE

Monday, October 18
5:00 pm - 8:00 pm .... Registration Desk Open

Tuesday, October 19
7:00 am - 8:00 pm .... Registration Desk Open
8:00 am - 4:30 pm .... Preconference Workshops

Wednesday, October 20
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 21
7:00 am - 5:30 pm ....Registration Desk Open

8:00 am - 4:30 pm ....Presentations
*10:00 am - 5:30 pm........... Commercial Exhibits

Friday, October 22
7:30 am - 5:30 pm .... Registration Desk Open
8:00 am - 4:30 pm.............................Presentations
*10:00 am - 5:30 pm ....Commercial Exhibits

Saturday, October 23
7:30 am - 2:00 pm............. Registration Desk Open
8:00 am - 1:30 pm ....Presentations
9:00 am - 2:00 pm ....Commercial Exhibits

*The exhibit floor will close for an exhibitor break from 12:30 pm - 1:30 pm.

AAC INSTITUTE CEUS / CERTIFICATES OF ATTENDANCE

AAC Institute has been authorized to provide CEUs by IACET (International Association for Continuing Education and Training). CEUs will be offered for all conference learning sessions without charge. AAC Institute CEUs that relate to the practice of speech-language pathology and audiology can be used for ASHA certification maintenance. RESNA accepts AAC Institute CEUs for ATP/ATS credential maintenance. Most state licensure systems accept AAC Institute CEUs or other forms of self-reporting. Preconference workshops are offered for up to 1.4 CEUs. The conference is offered for up to 2.0 CEUs. For additional information visit www.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. All preconference workshop participants will receive a Closing The Gap-issued, presenter-signed Certificate of Preconference Workshop Attendance upon completion of the workshop.

ACADEMIC CREDIT

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

ONE FULL SEMESTER CREDIT   Cost: $123

Requirements:
- 12 contact hours
- An outside assignment

(12 contact hours require conference participation or two preconference workshops.)

TWO FULL SEMESTER CREDITS   Cost: $246

Requirements:
- 24 contact hours
- An outside assignment

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

THREE FULL SEMESTER CREDITS   Cost: $369

Requirements:
- 36 contact hours
- An outside assignment

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

Accessing the Artist Within

Art Contest And Adapted Art Show

Anne Carlsen Center of North Dakota is opening a contest for artists using adaptive equipment

SUBMISSIONS ACCEPTED:

- Paintings
- Drawings
- Photography
- Digital Art
- Video
- Film
- Musical Composition

Submissions are currently being accepted by the Anne Carlsen Center and will be posted as they are received. A minimum of ten pieces of art will be selected to be shown at the 28th Annual Closing The Gap Conference, October 21-23, 2010.

Requirements: Age 5 - 21. Each artist must use some type of assistive technology to create his/her work of art.

For more information
www.accessingtheartistwithin.org
1-800-568-5175

PRECONFERENCE WORKSHOPS

Tuesday and Wednesday, October 19-20, 2010

Attend all five days and earn up to three gradu-ate-level academic credits and up to 3.4 CEUs!

PC-1 Multi-Modal Communication Strategies for Children Who Have Complex Communication Needs - PODD Communication Books (Two-Day Introductory Workshop)

Children who are non-speaking or have only limited speech, in addition to other challenges, often struggle to interact and communicate. This may include children who have physical disabilities, multiple disabilities, sensory processing challenges, limited social interaction skills and/or a range of cognitive limitations and learning difficulties. This two-day workshop will demonstrate the use of a Pragmatic Organization Dynamic Display (PODD) approach developed by Gayle Porter (Melbourne, Australia). Generic templates for multi-page "light tech" communication books have been carefully designed to support genuine communication for a variety of functions throughout the day. These templates may be customized for a range of access methods and other individual needs. Come learn strategies for creating multi-modal language learning environments that provide receptive models and expressive opportunities for language development. Learn strategies for teaching and using PODD with children and their communication partners. Videos and case examples will be shared. Participants will have an opportunity for hands-on practice with PODD communication books. There is a $15 fee for the PODD course manual in addition to the $480 cost of the two-day workshop.

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

PC-2 Getting Writing on the Radar for Students with the Most Significant Disabilities, Including Deaf-Blindness

From the very start, writing is an unquestioned component of literacy development for children without disabilities. However, for children with significant disabilities, including deaf-blindness, writing is often impossible due to their vision, speech and motor problems. This workshop will focus on getting writing on their radar! Individual and group emergent writing activities connected to state standards will be demonstrated, along with teaching strategies, sample goals, informal assessment methods and ways for students to write and scribble using "alternative pencils." Videos and very beginning writing samples will be shown of real students with significant disabilities in preschool to high school classrooms.

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

PC-3 Reaching Every Learner with Free Technology

How can I implement UDL without breaking the bank? This confident-beginner- to intermediate-level workshop will explore some of the best FREE applications for overcoming barriers and for facilitating independent learning. These free tools provide learners with multiple means of expression, engagement and representation. Programs that install on your computer, online applications and resource Web sites will be examined. Multiple text-to-speech options, software to support vision, ways of using voice recording as an alternative to writing or keyboarding and other free AT will be presented. Multimedia tools that engage learners and offer alternative ways of showing what has been learned will be explored. Participants will be shown the potential of classroom blogs and programs, such as Scratch or Google Sketchup, to engage and motivate learners. Participants MUST bring their own laptop computer (PC or Mac), with wireless network card and Firefox browser installed, to the workshop. Some software will be preloaded on DVDs for installation during and after the workshop.

Paul Hamilton, M.Ed., is an Assistive Technology Consultant, SET-BC (Special Education Technology), Courtenay, BC, Canada.

PC-4 Facing the Challenges of Access with Students Who've Had Less Than Successful Experiences

Access is truly a part of an activity, not an act that must be "solved" first, to proceed. Control of access, and its mastery, come with activity engagement. Activity engagement occurs when individual interests and learning specific information are married. This intermediate- to advanced-level workshop will focus on students who present real challenges - those students who are non-speaking, non-ambulatory, who have difficulty demonstrating postural control and who appear to exhibit inconsistent behaviors of intention. However, it will also focus on our preconceived, inadequate assessment techniques, and it will support our need to refocus on the activity itself, its task analysis and our learning environment.

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

PC-5 Evaluation of Effectiveness: The Role of Data in AT Assessment and Implementation

This workshop will address the following points of interest regarding data and discuss evaluating the effectiveness of assistive technology tools and strategies for both low and high incidence students during the assessment and implementation processes. What should assessment data include? How do assessment and implementation data relate? What kind of data will best support implementation? What kind of data should be collected to support equipment recommendations and funding requests? What is the goal for the technology (or strategy)? What is the "minimum performance criterion" for the task at hand? What would it take to convince you that the intervention was successful? Who will collect, analyze, summarize and share the data? Through formal presentation and small group participation, participants will learn and discuss a variety of strategies through which to address the above concerns.

Jane Korsten, M.A., is a Speech Language Pathologist, AT Resource Specialist and Co-Author of EMC, Every Move Counts, Inc., Lee's Summit, MO and Terry Foss, M.Ed., is an AT Resource Facilitator, Shawnee

Mission Public Schools and Co-Author of EMC, Every Move Counts, Inc., Lee's Summit, MO.

PC-6 Assistive Technology Supports for Struggling Students: Hands-On!

Participants in this workshop will have a hands-on experience using a full range of off-the-shelf tools, enabling students to function more independently and successfully. From hand-held devices, such as the iPhone, iPad and iPod touch, talking pens, and the applications that make them tick, to photo key chains, visual assistants, Web conferencing for therapy, Web sites that support learning and more, workshop participants will learn by doing. Throughout this fast-paced show-and-play session, participants will learn by using the most current and emerging technology tools, enabling a wide range of students, including the participant him or herself, to become more efficient at a variety of tasks! From the hardware and software that drive them, to the innovative ideas that open a world of possibilities for use, today's tools for access and success are waiting for you! (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every two participants.)

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

PC-7 Expressive Communication Needs Across the Autism Spectrum - From AAC to Social Communication: Tech Tools for Assessment and Intervention

This workshop will provide participants with an in-depth review of the functional expressive communication needs for all students with Autism Spectrum Disorder (ASD). The entire range of expressive communication abilities exhibited by students with ASD will be addressed, from students who are pre/non-verbal, to students with echolalia, to students who are extremely verbal yet lack the social communication skills to be successful communicators. Core communicative functions (essential life skills for communication!) will

SAVINGS

NEW FOR 2010:

- **RETURN DISCOUNT for ANY** past conference registrant (This discount is in addition to any and all other applicable discounts - deadline June 30th.)
- Group Discount - 5 or more
- Group Discount - 8 or more

ADDITIONAL SAVINGS:

- Preconference Workshop Bundle
  A $60 savings!
- Early Registration Discount -
  on or before June 30th
- Parent / Student Rate
- Presenter / Exhibitor Rate

be reviewed, as well as where to start and where to go with AAC systems for students with ASD who are not effective verbal communicators. Assessment tools and curriculum-based programs to address the social communication difficulties exhibited by verbal students with ASD due to social thinking skill deficits will be explored in depth. Numerous examples of technology to teach various expressive communication skills to students with ASD will be shared, through a combination of video clips, actual materials and personal stories.

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

Tuesday, October 19 8:00 am - 4:30 pm

PC-8 "Help!, I'm an AT Specialist and I Can't Get Up!" Creating Manageable School-Based AT Services

Feeling the pressure of delivering AT services in your district? Well, we are a handful of folks serving a large district of over 63,000 students in approximately 95 schools and we're here to help. We know that many AT professionals working actively in the schools are left with little or no time to assess their programs, develop targets for change and produce a focused plan to address these targets. This workshop will provide an active program analysis and planning opportunity for attendees to develop a plan to improve their services and meet the needs of students, staff and families. Specific elements addressed in the planning process will include differentiated referral systems (e.g. high and low incidence), consultative services, systems of follow up, training and technical assistance, equipment management, documentation, participation in district planning and initiatives, methods of self-evaluation and reporting, and strategies to build site capacity for AT decision making. Networking, brainstorming, practice and discussion will be an integral part of the workshop and ample resources will be disseminated to allow participants to leave with ideas for immediate change.

Keri Huddleston, M.A., CCC-SLP, is an Assistive Technology Specialist, 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.

Tuesday, October 19 8:00 am - 4:30 pm

PC-9 Teaching Reading When Students are at Emergent Level: For Students with Autism and Other Severe Disabilities of All Ages

This fast-paced workshop looks at the important development of emergent literacy skills for children with autism and other severe disabilities. Extensive video clips highlight the importance of relationship development, adapted supported reading and sound and letter play/work. Woven throughout is the foundational underpinnings of augmentative communication and technology. Participants will leave with an understanding of how to use supported readings and how to establish communication and interaction around reading with students with more severe disabilities. An understanding of the Building Blocks Model will be established and adapted in light of working with children who are non-verbal. The morning will cover the building blocks of supported reading, concept and vocabulary development and print concepts. The afternoon will cover the building blocks of phonemic awareness, writing and letter names and sounds. This workshop is perfect for special education teachers who are working with young or older students who are at an emergent level developmentally or cognitively. Hands-on computer activities will help integrate technology into the emergent reading strategies. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every two participants.)

There is a $30 materials fee in addition to the cost of the workshop.

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

Tuesday, October 19 8:00 am - 4:30 pm

PC-10 Supporting Students Using AAC Through a Core Vocabulary-Based Curriculum

Normally developing children enter school having "learned to talk" so they can "talk to learn." However, children with speech and language disorders, including those who rely on augmentative and alternative communication systems, need intervention that helps them "learn to talk" so they can "talk to learn." This intermediate workshop provides curriculum strategies for students with emerging language who use AAC systems that help them learn to talk so they can talk to learn. The emphasis is on developing critical language and literacy skills through curriculum strategies that 1) target language development (The Pixon Project Kit), 2) support play-based learning (Stories and Strategies), and 3) enhance literacy development (Bridge to Literacy). Lecture, demonstration, videotape examples and small group activities will be used to meet workshop learning objectives. The workshop is geared toward promoting the use of core vocabulary and language output that should be observed in 3- to 5-year-old children by the end of their pre-kindergarten experience.

Gail M. Van Tatenhove, M.S., CCC-SLP., is an AAC-focused Speech Language Pathologist in private practice and the President, AACell, Inc., Orlando, FL.

Tuesday, October 19 8:00 am - 4:30 pm

PC-11 Helping Teachers Integrate AIM in Classroom Instruction

After an IEP team determines that a student needs accessible instructional materials (AIM) and chooses the tools that a student with disabilities will use to gain access to core instructional materials, the work has only begun. Implementation planning, inclusion strategies and evaluation of the effectiveness of the use of AIM are essential if it is to become useful for student learning. What should teachers do to ensure that individuals who use AIM are able to participate as fully as possible in classroom activities and learning opportunities? What can research about classroom management and organization contribute to AIM implementation for individual children? How can principles of Universal Design and Differentiated Instruction help teachers plan for students' use of AIM in daily, classroom instruction? In this workshop, we'll share ideas and stories, and work together in teams with a focus on improving conditions for AIM-based learning.

Gayl Bowser, M.S. Ed., is an Independent Consultant, Roseburg, OR.

Tuesday, October 19 8:00 am - 4:30 pm

PC-12 Keeping Current with Lite Tech AAC Systems and Innovations While Avoiding Technology Overload

You have acquired basic knowledge about lite tech AAC systems, but keeping track of the many new technologies and innovations has become a chore. Staying abreast of the latest technologies and acquiring new skills is not an option, it's a must! Gathering and sorting through information on over 300 commercially available lite tech products, understanding features and options for each and making decisions can be overwhelming. Throughout the day, participants will have hands-on opportunities to examine a multiplicity of lite tech communication devices and employ

systematic procedures for reviewing devices to gain insight into features and functions. Assessment procedures, tools to aid in identification and selection of the best system for meeting the needs of those developing communication skills or for complementing the use of a current communication system will be reviewed. Strategies for enhancing the use of personal communication systems will be addressed, with participants receiving "print and share brochures" to reprint/share in their work setting. Participants will receive a CD with copies of aforementioned resources ("print and share" for use of sequencers; single, double and multiple message devices; tools for analyzing/selecting devices; and assessment procedures). CD includes current chart, The Resource for Lite Tech Low Cost AAC, reviewing approximately 300 devices (those costing less than $1,500) with photos, features, possible client characteristics and vendor information for each system. CD will contain glossary of lite tech terminology and a PDF of a PowerPoint presentation on lite tech for training others.

Elizabeth (Libby) S. Rush, M.A., CCC-SLP, CPM, is an AAC Consultant in private practice, Durham, NC.

Wednesday, October 20   8: 00 am - 4:30 pm

PC-13 Literacy Frameworks that Guide Technology-Supported Assessment and Intervention

Literacy curricula and technologies come in a variety of boxes and binders. All work for some students. None work for all students. To help all students succeed, professionals and parents need to understand the cognitive processes that contribute to literacy learning success. In this intermediate workshop, we will explain two basic models of reading and writing. Then we will help participants learn how to use the models to assess student needs, identify appropriate teaching and learning strategies, and select (mostly free and Internet-based) technologies to support identified student needs. Participants will learn how to be more intentional in planning and delivering technology-supported literacy interventions to students with disabilities. Note: Although this is a demonstration workshop, participants are encouraged to bring their own laptop computer with wireless access to try many of the activities as they are presented.

David A. Koppenhaver, Ph.D., is a Professor, Dept. of Language, Reading and Exceptionalities, Appalachian State University, Boone, NC and Barbara Wollak, M.S., CCC-SLP, is a Speech Pathologist, AAC and Assistive Technology Specialist, St. Paul Schools, St. Paul, MN.

Wednesday, October 20 8:00 am - 4:30 pm

PC-14 iPod touch, iPhone and iPad as Assistive Technology: From AAC to Planning Tool

Originally developed for the consumer market, the iPod touch, iPhone and iPad have proven to provide a wealth of possibilities for assistive technology with their brilliant graphics, audio and multi-touch interface. Participants in this workshop will learn about and will have an opportunity to try many applications that could make a difference for their students and/or clients, preschool through adult. While the hands-on activities will be on the iPod touch, the iPhone and iPad will also be discussed. The presenters will begin with Proloquo2Go, a complete AAC solution, and will follow with applications for sign language, planning, story telling, reading/writing and much more. Participants will learn how these solutions can make a difference for people with various disabilities, such as traumatic brain injuries, autism, fluency disorders, mild cerebral palsy and others. At the end of the day, participants will know what hardware and applications to recom-

mend, and will have learned to use some of the most promising AT applications available today. (Hands-on activities will be conducted on iPod touches - one iPod for every one participant.)

David Niemeijer, Ph.D., is the CEO, AssistiveWare, Amsterdam, Netherlands; Mark Coppin, B.S., is an Apple Distinguished Educator and the Director of Assistive Technology, Anne Carlsen Center for Children, Jamestown, ND; Eric Sailers, M.A., CCC-SLP, is a Speech Language Pathologist and Assistive Technology Specialist, La Mesa-Spring Valley School District, La Mesa, CA; and Jennifer Marden, M.S., M.A., is a Speech Language Pathologist, Technically Speaking, Roslindale, MA.

Wednesday, October 20 8:00 am - 4:30 pm

PC-15 Powered Mobility Assessment and Training with Children: How to, With What, Where, When and Why (especially for those children never previously considered candidates for powered mobility)

The times have changed; however, the assessment and training of powered mobility with children has not. This intermediate workshop will focus on seating, access and mobility, the equipment needed, its program and its use. Who the candidate is, how the chair performs, where the parts are mounted and the adapted seating are still "small" replicas of adult configuration. We will share the strategies and equipment that will create systems for children to support increased independent mobility. We will focus on first teaching mobility, and then on driving. We will share successful strategies of seating/positioning/access and equipment that have allowed children to develop functional independence.

Karen M. Kangas, OTR/L, ATP, is an Occupational Therapist, AT Specialist, Seating and Mobility Specialist and Clinical Educator in private practice, Karen M. Kangas OTR/L, Shamokin, PA and Lisa Rotelli, A.S. in Physical Therapy, is an Educational Consultant, Adaptive Switch Labs, Inc., Spicewood, TX.

Wednesday, October 20 8:00 am - 4:30 pm

PC-16 Asperger Syndrome and School: What Does It Take, REALLY?

Though many of us are familiar with interventions for students with Asperger Syndrome, why can supporting student success seem challenging? As consultants working in the schools, we know that though this population may comprise a small part of the student body, trying to effectively program for them can consume a lot of time and energy. In this workshop, we will expand the discussion from single, child-centered interventions, such as schedules or social stories, to big picture issues in classrooms and at school and district levels that impact the success of this population. In order to promote successful participation in school, professionals must learn about the factors that set these students apart, examine the educational barriers that can impede their learning, and identify strategies to remove these barriers. School districts must also adopt a philosophy that supports the social, academic and emotional needs of students with Asperger Syndrome. To address these issues, we created the Self-Evaluation and Planning Tool: Educational Programming for Students with Asperger Syndrome, which consists of standards we identified as essential for student success. Participants will learn how these standards can be used to target specific areas of change in their classrooms or districts. Additionally, a Social Resource classroom model that the presenters helped to design, based on the standards, will be highlighted so that workshop participants can leave with replicable ideas to infuse

in their own settings right away. Technology used in these classrooms will also be discussed.

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

Wednesday, October 20 8:00 am - 4:30 pm

PC-17 Literacy Instruction for Individuals with Complex Communication Needs

The development of literacy skills has a profound positive impact on all aspects of life for individuals who require AAC. This workshop will discuss evidence-based practices for teaching basic reading skills to individuals who use AAC and demonstrate how to support the use of these skills in meaningful reading activities. The instructional activities are based on the recommendations of the National Reading Panel; they were developed and evaluated as part of a literacy intervention research project funded by the National Institute on Disability and Rehabilitation Research, as part of the AAC-RERC. The instruction targets phonological awareness skills, letter sound correspondences, single word decoding skills, application of decoding skills in book reading, recognition of sight words, reading and understanding connected text, and writing skills. The workshop will include video examples of the use of the instructional practices with children and young adults with cerebral palsy, autism, Down syndrome and other disabilities. (Co-author Dr. Janice Light will not be presenting; however, she will appear/present in many of the videos shown.)

David McNaughton, Ph.D., is a Professor of Education, Dept. of Education Psychology, School of Psychology and Special Education, Penn State University, University Park, PA.

Wednesday, October 20 8:00 am - 4:30 pm

PC-18 Using 21st Century Tools for Teaching and Accessible Learning

From streaming video to Web 2.0 tools, solutions abound for in-class teaching and teaching beyond the classroom walls, as well as tools for access and support. Learn, hands-on, how you can stream a lesson live to more than one location, use Web conferencing tools to address diverse learners in multiple locations at the same time, support AAC providers and users or provide technical support. Learn what free or inexpensive Web-based solutions allow you to assign work, review work in progress and provide comments and supportive materials that students can access from any Internet connection. Learn how to make use of free portable applications and online Web 2.0 applications, install Web browser add-ons, find solutions for access to the computer, access to text, supports for writing, note-taking, online file storage and more. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every two participants.)

Dan Herlihy is an Assistive Technology/Technology Resource Specialist, Connective Technology Solutions, Inc., Hoosick, NY and Liz Medvetz is an Applications Training and Support Specialist, University at Albany, Albany, NY.

Wednesday, October 20 8:00 am - 4:30 pm

PC-19 Designing, Implementing and Evaluating Universal Design for Learning Interventions

As schools seek to implement Response to Intervention (RTI) models, it is useful to provide teachers with advanced training in Differentiated Instruction (DI) and Universal Design for Learning (UDL). The purpose of this intermediate workshop is to provide participants with experience in planning and implementing instruction for diverse learners and provide a

forum for professionals who have been exploring the application of UDL and desire to implement advanced strategies in their classroom or scale-up UDL implementation. Participants will evaluate claims of UDL to refine their vision of what UDL is and is not. Access to new UDL tools will be provided for exploration and evaluation. Finally, the presenter will provide tools for gaining access to the research base concerning UDL and UD assessment. As a result of this workshop, participants will leave with new tools, resources and insights about the potential and the realities of UDL. Note: Given the practical nature of this hands-on workshop, participants MUST bring their own laptop computer (Windows XP/Vista/Windows 7 or Macintosh OS X) that includes a wireless network card, a Web browser and Microsoft Word, to the workshop.

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

Wednesday, October 20 8:00 am - 4:30 pm

PC-20 Adding MORE to Your Bag of Tricks ... and Treats!

Teaching children with autism includes many modifications and accommodations to insure that the students are successful. These should take place from the second the bell rings in the morning until the moment you finally get to sit down and take a deep breath at the end of the day after the children leave. There are constantly new and creative ways to do this, therefore I am continuously updating and adding to my "bag of tricks." These will include physical setup, visual strategies, social skills strategies, academic modifications and much more. Visuals can help with memory, comprehension, achievement, processing, independence and behavior. From the use of graphic organizers, picture symbols, highlighting, color-coding and more, academics can be more visual and provide clarity and support comprehension. Many of our students also have social deficits. Making social information visual will improve a child's ability to socially interact. Social stories, visual bridges, scripting and video taping/modeling are some techniques to teach social skills. During this fun and fast-paced beginner- to intermediate-level workshop, participants will make some of the visuals needed to create more successful environments. A list of free Web sites to support student achievement, many new ideas, real life stories and a CD filled with pre-made visuals that can be used immediately to get the ball rolling will also be shared. There is a $35 materials fee in addition to the cost of the workshop.

Mo Buti, M.A., is the Chicago Public Schools' Coordinator of Autism and Cognitive Disabilities, Chicago, IL.

Wednesday, October 20 8:00 am - 4:30 pm

PC-21 Teaching Non-Verbal Children to Read: The Link Between Reading and Communication

This exciting workshop will focus on teaching non-verbal children with severe disabilities to read and write, utilizing a Balanced Approach to reading, while stressing the efficacy of literacy as an instructional tool for language development. Hands-on experiences with computer technology that supports reading instruction will be explicitly integrated into the learning. Often, technology is seen as an "add-on" to the instructional sequence; but in this workshop, it will be integrated so participants can better grasp the need for an integrated use of technology in instruction. The needs of the student who is non-verbal or "less than verbal" will be highlighted. Participants will learn to understand that these needs dictate how to "tweak" a Balanced Literacy Approach to work for a particular child. Extensive videos illustrate key points and tech-

niques in the instruction of decoding, guided reading and comprehension. Writing and self-selected reading will be explored as various technologies are utilized for the child who is unable to hold a pencil or even a book independently. The integration of augmentative communication and technology as a platform for giving children with disabilities a research-based approach to reading, similar to the more typical peers, is the focus. (Hands-on activities will be conducted on both PC and Macintosh computers - one computer for every two participants.) There is a $30 materials fee in addition to the cost of the workshop.

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

Wednesday, October 20 8:00 am - 4:30 pm

PC-22 COMMUNICATION CIRCLES: With a Little Help From My Friends

Janice Light (1989) defines communicative competence as "... the ability to communicate functionally in the natural environment and to adequately meet daily communication needs." For students who use augmentative and alternative communication (AAC) and are in inclusive settings, this goal is very appropriate ... and challenging! WHERE do we find the time to support students in learning the linguistic, operational, social and strategic skills they need to engage in successful interactive communication? We suggest starting "communication circles" or circles of peers who support AAC users in learning and practicing skills. Additional goals include peer interaction, generalization of AAC-related skills learned in speech and occupational therapy, and integration of AAC and curriculum objectives. Communication circles support target students weekly, carrying out activities designed jointly by professionals and team members. Circle members also provide support by keeping data and anecdotal notes. This workshop will include lecture, demonstration, brainstorming and case studies. There is a $15 materials fee in addition to the cost of the workshop.

Caroline Musselwhite, Ed.D., CCC-SLP, is an Assistive Technology Consultant and Author, AAC Intervention, Litchfield Park, AZ; Jerolyn Allen, M.Ed., OTR/L, ATACP, is an Occupational Therapist and Assistive Technology Coordinator, Litchfield Elementary School District, Litchfield Park, AZ; Jane Odom, M.Ed., is an Education Segment Manager, Prentke Romich Company, Surprise, AZ; Jan Pilling, M.S., is a Speech Language Pathologist and Assistive Technology Coordinator, Brandon Public Schools, Brandon, MB, Canada; and Deanna Wagner, M.S., CCC-CLP, is an Assistive Technology Specialist, Madison Elementary School District, Phoenix, AZ.

Wednesday, October 20 8:00 am - 4:30 pm

PC-23 Flipping Over Adobe Acrobat

Getting work digitized for students is a constant concern for teachers. They need it done as fast as possible, but they also need a program that is inexpensive and works on a variety of computers and other technologies. Adobe Acrobat Professional version 9 is a program that best offers special educators and their students these tools. This intermediate- to advanced-level, hands-on workshop is designed to be a tutorial on the use of this program. It is designed to provide participants with examples of when and where to use the program in a variety of creative, timesaving ways that are not covered in the manuals. Participants will learn how to create a variety of PDF files and transfer them to other devices, use and unlock publisher-created PDF files, create comments and audio notes, use built-in accessibility features, create on-screen worksheets, make diagrams, label maps with pictures, bind multiple files, create presentations, create hypertext, use links and more. (Hands-on activities will be conducted on Closing The Gap-provided Mac computers - one computer for every two participants; or, participants are welcome to bring their own laptop computer (Mac or PC) with Adobe Acrobat Professional version 9 pre-installed.)

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

Wednesday, October 20 8:00 am - 4:30 pm

PC-24 Teaching AAC

This hands-on workshop is a must for anyone who supports, evaluates or works with students using AAC. Emphasis will be placed on improving the quality of instruction available to all students who use alternative and augmentative communication (AAC), from inclusive situations to special education programs with a range of student ability levels. Practical strategies, teaching tips and instructional strategies will be highlighted. A variety of systems will be available for hands-on use throughout the day, including DynaVox devices and Prentke Romich devices, as well as some light tech systems. Practical strategies for monitoring student progress, writing learning objectives and data collection ideas will be shared. In addition, light tech methods to support AAC during "the waiting period" and/or to determine potential use of more sophisticated systems will be addressed. Videotaped examples of students will be used to illustrate concepts and strategies. Each participant will receive a CD that includes Making Language Visible in the Classroom (commercially available) and other resources pertaining to AAC instructional strategies. There is a $20 materials fee in addition to the cost of the workshop.

Pati King DeBaun, M.S., is a Speech Language Pathologist/Consultant specializing in assistive technology, Creative Communicating, Park City, UT and Karen Biggerstaff, M.S., is a Speech Language Pathologist/Consultant, San Antonio, TX.

STATE-OF-THE-ART COMMERCIAL EXHIBITS

Wednesday evening through Saturday, October 20-23, 2010

Below are the contracted companies to date.

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

AAC TechConnect, Inc.
www.aacTechConnect.com
A company that simplifies augmentative communication (AAC) evaluations by providing national workshops, online clinical/evaluation toolkits, and is a one-stop Web resource center for AAC info.

AbleNet
www.ablenetinc.com
AbleNet offers a complete line of assistive technology products, including communication aids, switches, environmental control, computer access and mounting devices. We also offer research-based special education curricula.

Adaptivation, Inc.
www.adaptivation.com
Adaptivation produces innovative and affordable switches, environmental controls, alternative augmentative communication devices and other assistive technology for individuals with a wide range of special needs.

Adaptive Switch Laboratories
www.asl-inc.com
ASL is dedicated to designing and adapting devices that allow individuals with severe disabilities to achieve independent movement, environmental control and communication/computer access.

AssistiveWare
www.assitiveware.com
AssistiveWare is the worldwide leader in innovative assistive technology software for Mac OS X and the iPhone, with products such as Proloquo2Go, Keystrokes and GhostReader.

Atomic Learning
www.atomiclearning.com
Technology Skills Collection: Including training tutorials on over 130 applications, Atomic Learning's Technology Skills Collection is a must have resource for technology support and training initiatives.

Attainment Company
www.attainmentcompany.com
Attainment Company products are created for individuals with developmental, learning and/or communicative disabilities to foster independence and increase active participation in classrooms and communities.

Augmentative Resources
www.augresources.com
Velcro-receptive communication books, visual display/choice boards, picture schedules and literacy aids. Check out our new Easy Push Talking Pockets and Communication Charm bracelets!

Beacon-Ridge
www.beacon-ridge.com
Beacon Ridge is a general educational materials and supply resource. We have many low tech solutions for time management, organization, handwriting, computer access and communication.

Bookshare
www.bookshare.org
Bookshare is the world's largest online library of accessible digital books for people with print disabilities. Our services are free for U.S. students of any age.

Cadan Computers
dba Technology for Education
www.tfeinc.com
New speech interpreter software and deaf/hard of hearing portable software. Stealth

DON'T MISS THE
PREVIEW OF EXHIBITS

WEDNESDAY, OCTOBER 20
5:30 PM - 8:00 PM

Great Hall, Sheraton Bloomington Hotel
Open to preconference and/or conference registrants only.

EXHIBIT HOURS
Wednesday, October 20
5:30 pm - 8:00 pm
(Preview of Exhibits)

Thursday, October 21
*10:00 am - 5:30 pm

Friday, October 22
*10:00 am - 5:30 pm

Saturday, October 23
9:00 am - 2:00 pm
(Open to the public at no charge)

The exhibit floor will close for an exhibitor break from 12:30 pm - 1:30 pm.

Switch Interface, ProxTalker and Key Board Communicator.

Cambium Learning Technologies
www.cambiumlearning.com
A leading source for educational technology to help students learn to their fullest potential, serving students who use assistive technology or need additional instructional support for any other reason.

CJT Enterprises, Inc.
www.yescjt.com
Modular mounting systems allowing AT devices to be optimally positioned to accommodate an individual's unique needs. Come see our NEW products for 2010.

Closing The Gap
www.closingthegap.com
Try, first-hand, the online subscription tool that allows users to search for and compare the latest in AT products and allows users to find, read and share articles that highlight effective AT strategies.

Cognitopia Software
www.cognitopia.com
Cognitopia Software's Picture Planner easy-to-use software that uses pictures and symbols in an icon-based personal activity scheduler for individuals with little or no reading ability.

Creative Communicating
www.creativecommunicating.com
Creative Communicating is dedicated to creating fun, simple and universally accessible resources for communication, early literacy and creativity for students with disabilities.

Crick Software, Inc.
www.cricksoft.com
Our mission is to improve literacy achievement for students of all abilities by providing educators with innovative solutions that are easy to use and cost-effective.

DO-IT, University of Washington
www.uw.edu/doit/
DO-IT serves to increase the participation of individuals with disabilities in challenging academic programs and careers, through the use of computer and networking technologies.

Dolphin Computer Access, Inc.
www.yourdolphin.com
Dolphin Computer Access delivers independence to people with visual impairment and learning disabilities through complete access solutions such as Dolphin SuperNova and the ultimate alternative format tool EasyConverter.

Don Johnston, Inc.
www.donjohnston.com
Award-winning products build in physical accessibility, integrate validated research, capitalize on new discoveries in brain science, align to standards and are presented in multiple medias through engaging instructional models.

DynaVox Mayer-Johnson
www.dynavoxtech.com
DynaVox Mayer-Johnson offers assistive technology solutions for individuals with complex communication and learning challenges, including the V/Vmax, Xpress, EyeMax, Tango and Boardmaker Software Family.

Exceptional Parent
www.eparent.com
EP Global Communications is a 39-year-old publishing company that provides advice and support to families of children and adults with disabilities and special needs.

Flexiciser International
www.fleiciser.com
Our product is designed to facilitate the law of movement therapy. Movement Therapy Device strengthens muscles, improves circulation and reduces spasticity for the mobility-challenged.

HumanWare
www.humanware.com
HumanWare provides innovative solutions, empowering people who are blind, deaf/blind, visually impaired or learning disabled.

Judy Lynn Software, Inc.
www.judylynn.com
Captivating switch and touch window software for students functioning at 9 months and up. Stop by booth 274 for a free catalog and demo.

Laureate Learning Systems, Inc.
www.laureatelearning.com
Researched-based, award-winning software for language assessment and intervention, communication, auditory processing, and reading designed to meet the unique needs of individuals with disabilities.

Lightspeed Technologies, Inc.
www.lightspeed-tek.com
The New Sound of Achievement, check out the new all-in-one REDCAT. This quick-set system saves the teacher's voice and raises academic achievement. Free evaluations available.

MacSpeech
www.macspeech.com
MacSpeech creates speech recognition solutions for the Macintosh. Our MacSpeech Dictate products dramatically enhance accessibility and productivity on the Mac. Find out more at www.macspeech.com

Marblesoft - Simtech
www.marblesoft.com
For over 25 years, Marblesoft - Simtech has produced outstanding special needs software for infants through adults. Stop by booth 261 to try our Simtech switch training software.

ModularHose.com
www.modularhose.com
Loc-Line Modular Hose is a unique plastic hose system that is flexible but yet self-supporting and re-positionable. Great for holding switches and utensils.

Monarch Teaching Technologies
www.monarchtt.com
VizZle easy-to-use special education software. Provides individualized, visuals-based interactive instruction for diverse needs, with the lessons and supports you need to be effective!

My Coin Chart
www.matheducation.us
My Coin Chart is a new and innovative educational tool that teaches students how to count coins up to $1. Paper Flow Chart and Software.

N2Y Inc.
www.n2yinc.com
Channel current events with News-2-You, our weekly Internet newspaper. Acquire a standards-based special education curriculum with Unique Learning System. Communicate with our dynamic symbol set, SymbolStix.

Nasco
www.eNasco.com
Nasco's Special Education Catalog offers a full line of products and resources for the special education teacher K-12, including software and assistive technology.

Origin Instruments Corporation
www.orin.com
Origin Instruments delivers computer access solutions for people with motor and speech disabilities. The HeadMouse Extreme is the company's flagship product.

Parlerai, Inc.
www.parlerai.com
Create a safe and secure online network for your child to collaborate with caregivers, friends and family. Visit our booth to see a live demonstration of the features that set us apart!

PointScribe
www.pointscribe.com
PointScribe is a multi-sensory, interactive software for teaching students of ALL abilities to handwrite using captivating visual, auditory, and tactile stimulation.

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

ProxTalker.com
www.proxtalker.com
Logan ProxTalker is the first moveable picture communication system that actually talks. Encoded picture sound tags are used to form sentences and produce voice output when pressed.

Quilted Illusions
www.quiltedillusions.net
Quilted Illusions makes a variety of products for deep-pressure therapy including weighted quilts, weighted vests and weighted teddy bears.

Read Naturally, Inc.
www.readnaturally.com
Read Naturally provides reading solutions for struggling readers, including fluency, comprehension, phonics and assessment. The flagship program has been used nationwide for over 18 years.

RJ Cooper & Assoc., Inc.
www.rjcooper.com
RJ Cooper is considered one of the 'pioneers' in Assistive Technology, developing unique software and hardware solutions for special needs. RJ is known for his workshops and personal service.

Saltillo Corporation
www.saltillo.com
Manufactures and distributes augmentative/alternative communication (AAC) devices. We specialize in portable speech output devices for ambulatory individuals. Our products include ALT-Chat and ChatPC.

Slater Software, Inc.
www.slatersoftware.com
Slater Software presents two powerful programs, Picture It and PixWriter. Both reference Literacy Support Pictures to promote literacy. Also a complete line of Teacher Resources including Simply Science and Read and Tell.

SoftTouch, Inc.
www.softtouch.com
SoftTouch specializes in software for severe and profound disabilities. SoftTouch offers a wide range of products from basic cause and effect to standards based curriculum.

Switch In Time
www.switchintime.com
Switch In Time offers engaging games and music software for individuals of all ages and abilities.

Talking With Baby
www.talkingwithbaby.com
Mom's Choice Awards winner 2010 for Education Products category. Learn ASL and teach signing to babies and toddlers while promoting literacy at the same time.

Tel • A • Vision
www.telavision.tv
A Web 2.0 online curriculum and Web site that inspires special education students of all levels, to create and share goal oriented vision videos.

Texthelp Systems, Inc.
www.texthelp.com
Texthelp provides literacy software including Read&Write GOLD, reading/writing/research support toolbar that integrates with mainstream applications; and Fluency Tutor, online solution for developing/assessing oral reading fluency.

The Conover Company
www.conovercompany.com
The Conover Company provides computer software-based assessments and curriculum for transition, social/emotional learning, and independent living skills utilizing the iPod touch.

Tobii
www.tobiiati.com
Tobii offers a range of AAC products that give individuals with communication disabilities a voice and a way to live more fulfilled and independent lives.

Utechzone Co., Ltd.
www.utechzone.com.tw
Utechzone Co., Ltd., with the Machine Vision Technology, has developed an eye-controlled system, "Spring" Functions such as games, communication, multi-media and Web-surfing are all included.

Words+, Inc.
www.words-plus.com
For over 25 years Words+ has been dedicated to unlocking the person by providing a broad range of augmentative communication devices and associated technology.

Writer Learning Systems
www.writerlearning.com
Offering low cost, focused and effective learning tools for special needs and regular education students. Come by and see what's new with the Fusion and the new Writer keyboards.

Conference - October 21-23, 2010	Includes Preview of Exhibits – Wednesday, October 20, 5:30 pm - 8:00 pm			
Registration Received	On or Before June 30	July 1 - September 9	September 10 - September 30	October 1 - Onsite

Standard Rate
   Group Discount - 5 or more
   NEW! Group Discount - 8 or more
    All group registrations must be received at the same time.
	$395
	Groups 5+ Deduct $30
	Groups 8+ Deduct $50
		$435
		Groups 5+ Deduct $30
		Groups 8+ Deduct $50
			$475
			Groups 5+ Deduct $30
			Groups 8+ Deduct $50
				$505
				Groups 5+ Deduct $30
				Groups 8+ Deduct $50

Parent Rate *(A letter describing your child's disability must accompany registration)*				$275
Full-time Student Rate *(Proof of full-time student status must accompany registration)*				$275
Presenter Rate				$305
Exhibitor Rate				$305

Single-Day and Exhibit Hall Only Registration	Price
Friday Only - October 22	$250
Saturday Only - October 23	$125
Exhibit Hall Only - Wednesday evening through Saturday, October 20-23	$150

Preconference Workshops - October 19-20, 2010 Includes Preview of Exhibits – Wednesday, October 20, 5:30 pm - 8:00 pm	Price
Tuesday, October 19 *(Some preconference workshops carry an additional fee for materials.)*	$270
Wednesday, October 20 *(Some preconference workshops carry an additional fee for materials.)*	$270
BUNDLED PRICING! Tuesday and Wednesday Bundle ($60 savings)	$480

NEW! RETURN DISCOUNT A $30 "return" discount is available to **ANY** past conference registrant and must be used by June 30, 2010. This discount can be used for any preconference workshop OR conference registration and is **IN ADDITION** to any and all other applicable discounts. If registering online, you will be required to enter code **RETURN** at checkout.

CONFIRMATION
All who register by October 1, 2010 will receive confirmation by mail.

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

CANCELLATION POLICY
Cancellations must be received in writing by Closing The Gap on or before October 1, 2010. There will be a $75 cancellation fee for each one-day preconference workshop, each one-day conference registration, or each exhibit hall only registration; a $125 cancellation fee for each three-day conference registration. No refunds after October 1, 2010. Unpaid balances are due in full. Replacements are welcome and must be submitted in writing.

SCHOLARSHIPS
A limited number of scholarships are available for persons with disabilities or parents/guardians of children with disabilities. These scholarships cover registration fees for the conference only (Thursday - Saturday), and do not cover preconference workshops, food, lodging or travel. Scholarships are awarded on a first come, first served basis and one time only per person. Persons that have previously received a scholarship from Closing The Gap are not eligible.

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

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

TRAVEL
Minneapolis-St. Paul International Airport (MSP) has one airfield and two terminal buildings – the Lindbergh Terminal and the Humphrey Terminal. Thirteen commercial passenger airlines service the airport.

Conference goers are encouraged to choose the airline that best meets their needs and budget.

For detailed airport information, please visit http://www.mspairport.com/

For those interested in flying Delta, Closing The Gap has arranged for them to offer discounted conference rates. For the lowest possible air fares, in the United States and Canada, call Delta at 800-328-1111, Monday through Friday, 7:30 am - 7:30 pm Central Daylight Time and reference the **Closing The Gap Conference, I.D. code NM5B5.**

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

HOTEL RESERVATIONS
Hotel reservations can be made by contacting the conference-site hotels directly. Please refer to the "Closing The Gap Conference" when making your reservations to receive conference room discounts when and where applicable. Both hotels have a limited number of handicapped accessible rooms. If you require an accessible room, state your needs when making your reservations and reserve your room early to better insure a room that will best accommodate you. A deposit of one night's room rate plus tax is required to reserve a guest room for the Closing The Gap Conference.

Sheraton Bloomington Hotel

7800 Normandale Blvd.
Bloomington, MN 55439
Phone: 952-835-7800; **Fax**: 952-893-8419

$149 - single occupancy
$159 - double occupancy
(Both are in South Tower.)
(Plus applicable state and local taxes.)

Hotel Sofitel (a one-block walk from the Sheraton)

5601 W. 78th St.
Bloomington, MN 55439
Phone: 952-835-1900 **Fax**: 952-835-0545

$159 - single, double, triple or quad occupancy
(Plus applicable state and local taxes.)

Cancellation policy for both hotels: Guest rooms may be cancelled up to October 1, 2010, with no cancellation penalty and your total deposit refunded to you. Any guest room cancelled after October 1, 2010, will be subject to forfeiture of the entire deposit.

2010 CLOSING THE GAP CONFERENCE REGISTRATION FORM

First Name_____ Last Name_____

Mailing Address (home/work - please circle one) _____

City _____ State / Country_____ Zip Code / Postal Code_____

Daytime Phone_____ Fax_____ E-mail _____

Employer_____ Occupation_____

Is this your first time attending? ❑ Yes ❑ No If no, most recent year attended _____ How did you hear about the conference? _____

*SPECIAL SERVICES ❑ MS DOS text file   ❑ Macintosh text file (Text file will be e-mailed.)   ❑ Sign interpreter
*For persons with disabilities only – must be requested by September 1, 2010.

$_____

Conference - October 21-23, 2010 Includes Preview of Exhibits – Wednesday, October 20, 5:30 pm - 8:00 pm				
Registration Received	On or Before June 30	July 1 - September 9	September 10 - September 30	October 1 - Onsite
❑ **Standard Rate**	$395	$435	$475	$505
❑ Group Discount - 5 or more ❑ Group Discount - 8 or more *All group registrations must be received at the same time.*	Groups 5+ Deduct $30 Groups 8+ Deduct $50	Groups 5+ Deduct $30 Groups 8+ Deduct $50	Groups 5+ Deduct $30 Groups 8+ Deduct $50	Groups 5+ Deduct $30 Groups 8+ Deduct $50
❑ **Parent Rate** *(A letter describing your child's disability must accompany registration)*				$275
❑ **Full-time Student Rate** *(Proof of full-time student status must accompany registration)*				$275
❑ **Presenter Rate** (Presentation title:)				$305
❑ **Exhibitor Rate** (Company name and booth number:)				$305

$_____

Single-Day and Exhibit Hall Only Registration	Price
❑ **Friday Only - October 22**	$250
❑ **Saturday Only - October 23**	$125
❑ **Exhibit Hall Only - Wednesday evening through Saturday, October 20-23**	$150

$__$0.00__

CONFERENCE SCHOLARSHIP (See page 36 for complete information.)
❑ I am applying for a conference scholarship. A letter describing your/your child's disability and telling us why you would like to attend the conference must be included.

$_____

Preconference Workshops - October 19-20, 2010 (Includes Preview of Exhibits – Wednesday, October 20, 5:30 pm - 8:00 pm)	Price
❑ **PC-1 Two-day PODD Workshop, Tuesday and Wednesday, October 19-20**	$480
❑ **Tuesday, October 19** 1st Choice PC-_____ 2nd Choice PC-_____	$270
❑ **Wednesday, October 20** 1st Choice PC-_____ 2nd Choice PC-_____	$270
❑ **BUNDLED PRICING!** Tuesday and Wednesday Bundle ($60 savings)	$480

I will bring my own computer for: ❑ PC-23 ❑ I will use Closing The Gap's computer.   Participants in PC-3 and PC-19 *MUST* bring their own computer.

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

PC-1 - **$15** materials fee	PC-20 - **$35** materials fee	PC-22 - **$15** materials fee
PC-9 - **$30** materials fee	PC-21 - **$30** materials fee	PC-24 - **$20** materials fee

$_____

ACADEMIC CREDIT (See page 30 for complete information and requirements.)
❑ One Semester Credit **$123**   ❑ Two Semester Credits **$246**   ❑ Three Semester Credits **$369**

SUBSCRIPTION - AN ADDITIONAL NON-CONFERENCE OPTION (See page 38 or Web site for more information.)
❑ One-year ONLINE subscription – **$50**   ❑ One-year PRINT subscription – **$36** (In the US); **$52** (To Canada)   ❑ Combination Subscription
$_____ ❑ One-year ONLINE student subscription – **$40**   ❑ Two-year PRINT subscription – **$64** (In the US); **$92** (To Canada)   One-year PRINT and ONLINE subscription – **$75**

($_____) **RETURN DISCOUNT - $30** (Not applicable after June 30, 2010)

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

PAYMENT INFORMATION My check # _____ for $ _____ is enclosed.

Please Charge to my ❑ Visa ❑ MasterCard Card Number _____-_____-_____-_____

Exp Date: _____ Cardholder Address:_____

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

Mail or fax form with payment or purchase order to: Closing The Gap, P.O. Box 68, Henderson, MN 56044; Fax 507-248-3810. **Or register online at:** <www.closingthegap.com>. All who register by October 1, 2010 will receive confirmation by mail. The official Closing The Gap Conference Directory will be given to registrants at the conference site; many of the conference details will be posted on Closing The Gap's Web site. For additional information call 507-248-3294 or e-mail <info@closingthegap.com>.

Cancellations must be received in writing by Closing The Gap on or before October 1, 2010. $75 cancellation fee for each one-day preconference workshop, each one-day conference registration, or each exhibit hall only registration; $125 cancellation fee for each three-day conference registration. No refunds after October 1, 2010. Unpaid balances are due in full. Replacements are welcome and must be submitted in writing.

A/M

Assistive Technology Resources for Children and Adults with Disabilities

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

Closing The Gap
······· SOLUTIONS ·······

P R I N T   S U B S C R I P T I O N S :

In the United States
- ❏ One year (six issues) $36
- ❏ Two years (12 issues) $64

Canada – Airmail
- ❏ One year (six issues) $52 (U.S. Funds)
- ❏ Two years (12 issues) $92 (U.S. Funds)

❏ Combination, One-year Print and Online Subscription $75 (U.S. and Canada)

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

Resource Directory
$16.95 plus postage and handling
($7 in the United States; $7 to Canada)

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

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

O N L I N E   S U S B S C R I P T I O N S :

Single subscription:

❏ One-year Subscription $50

❏ One-year Student Subscription $40
(Proof of current enrollment must accompany order. E-mail or mail statement to Closing The Gap.)

❏ Combination, One-year Print and Online Subscription $75 (U.S. and Canada)

Site license:

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

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

Please complete the following:

Name _____

Organization _____

Mailing Address _____

City _____ State / Country _____ Zip / Postal code _____

* Phone _____ Fax _____

* E-mail _____
         * Required for Online Subscription and/or credit card orders

Occupation_ _____

Where did you hear about Closing The Gap? _____

❏ **Check is enclosed $** _____

❏ **Please charge $** _____ to ❏ Visa ❏ MasterCard

   Credit card account number _____

   Expiration date _____

   Cardholder signature _____

   Cardholder address _____

❏ Purchase order attached # _____
(Allow 8 - 10 weeks for delivery of your first issue.)

Orders accepted on-line at www.closingthegap.com
Secure Sockets Layer Encryption (SSL) ensures the safety of your credit card transactions.

29/1

Integrate Assistive Technology in General Education

> "Having students that are physically present in the general education classroom, but are passive and uninvolved, is never acceptable."
>
> *Gayl Bowser, Independent Assistive Technology Consultant*
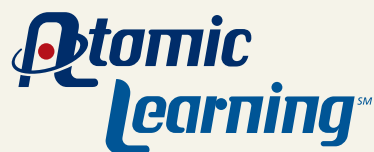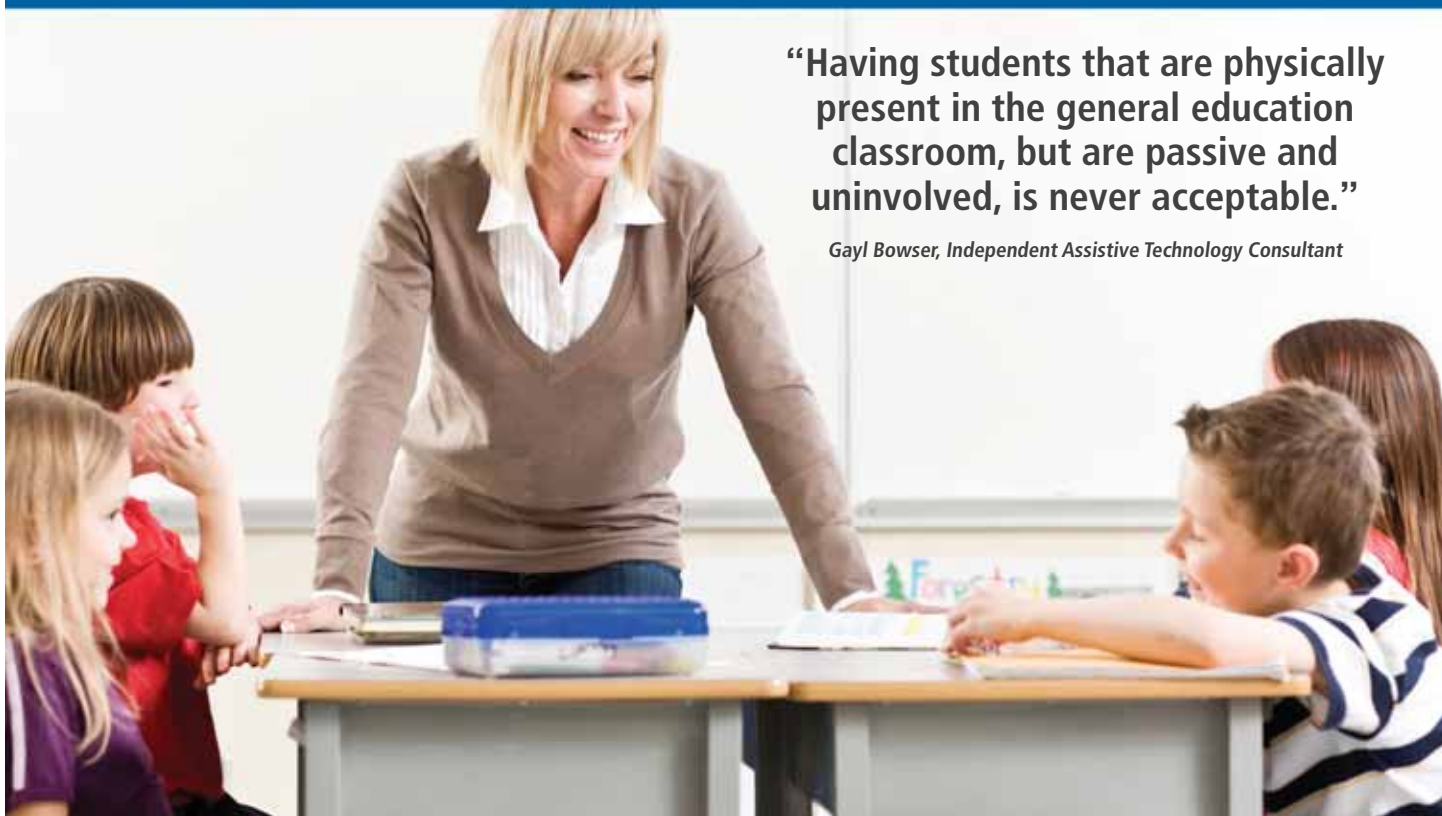
Assistive technology is available to students in all districts, but simply having those tools is not enough. It is up to the AT teams, general education teachers and administrators to work together to:

1. **Create a common vision**
2. **Understand roles**
3. **Develop AT skills**
4. **Analyze progress**

With No Child Left Behind and IDEA came a fundamental shift in the way that students with disabilities receive education.

As a result, students who would normally receive specialized instruction are being transitioned to standard general education curricula. This not only means that students with disabilities are receiving instruction alongside their peers who do not have disabilities, but that they must meet similar learning goals.

Even without considering special needs, it can be difficult to teach a group of students and ensure that they all meet the same requirements because students learn in different ways. Factor in the use and application of resources to create an inclusive learning experience and today's classroom teachers are faced with a challenge.

By creating a common vision and framework for integrating AT in the classroom and working together towards that vision, there will be a positive outcome. If students are able to participate in classroom activities because of assistive technology, then those students will be impacted in a positive manner.

To learn more about the four steps listed here and download a copy of Atomic Learning's free e-book *Integrate Assistive Technology in General Education: A Quick Reference Guide* visit:
http://al.atomiclearning.com/integrating_at_ebook/