

AT & High Incidence Disabilities: Goodbye Darkness



In this Issue...

There is light at the end of the tunnel, and it is not a freight train barreling toward us. Instead it is the glow of the promise of technology evolving fast and connecting with the aspirations of kids with high incidence disabilities – usually learning disabilities (LDs) – and the parents, educators and administrators who support them as a new school year begins.

For generations, children with high incidence disabilities faced frustration and failure, unable to make effective use of existing classroom tools. Parents and teachers often felt anxiety and sometimes resignation, wanting to help but lacking the knowledge and tools to do so.

The information age has brought a wide range of technology tools that offer hope and the promise of success in the classroom and beyond. Although significant obstacles remain, a slowly growing corps of technology-savvy educators, parents, and students are bringing a new outlook to classrooms.

The insertion of mandatory AT consideration for students with IEPs in the 1997 IDEA reauthorization captured the attention of IEP teams and parents. Yet recognition of technology's possibilities for kids with LDs and other high incidence disabilities has often taken a back seat to very real and pressing local and state budgetary considerations. Nevertheless, pioneers push ahead, seeking ways, such as accessing free AT on the web and implementing universal design concepts that benefit all students.

Karen Janowski Speaks

Karen Janowski, educator and AT/educational technology consultant, entered the field in the 1980s as an occupational therapist focused on rehabilitation. By 1989 she had segued into special education. In the early 1990s, she recalls, "I saw that many of my students would benefit from technology. Since my framework as an OT was to

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promote independence, I thought, 'This is what these kids need!' They needed the technology and no one around me was advocating for it." In fact, she adds, "many saw technology as a burden, not as a solution. I saw technology as providing an opportunity to promote independence." At that point, she remembers, she recognized the necessity of returning to school to earn a Masters in AT. "The trouble was, I couldn't find any schools that offered that field of study; there just weren't any programs available." Finally, in 2000, "I learned about an AT graduate program at Simmons College in Boston created by Madalaine Pugliese, which was exactly what I was seeking."

Her Masters studies brought professional and personal dividends. Professionally, she found herself at the spearhead of classroom AT evolution. Personally, her education aided her in assisting her son, who has learning disabilities, and better understanding her successful designer/builder husband who has reading challenges.

Today, she works closely with individual high incidence students, connecting them with the technology they need. Most of her work, she notes, is done outside the classroom, including during the summer months "when students are not burdened by academic pressures." Although she teaches professional development courses in AT for educators on a one-shot basis, she is a strong advocate for ongoing professional development in order to remain current with evolving assistive and educational technology.

In addition to her consultant duties, she is an instructor in the Simmons College Graduate Department of Education and a successful candidate for public office. "I was elected to the Reading school committee this year after losing the year before when I didn't campaign much. I'm an educator and not a politician but I learn quickly. This year I ran against two incumbents. My daughter, who has a political job in Washington, warned me that incumbents almost always win. Nevertheless, this year I crushed the competition, winning by about 1,000 votes. I was shocked!"

Supporting our interview with Ms. Janowski are resources aimed at helping parents, educators and all those who support children with high incidence disabilities better understand the relationship between technology and learning disabilities. We also feature members of our Knowledge Network. The members spotlighted this month focus on AT and high incidence disabilities. We invite you to contact these members for further information. Please share this newsletter with other organizations, families and profes-

sionals who may benefit from it. We invite you to visit us at <http://www.fctd.info>. We welcome feedback, new members and all who contribute to our growing knowledge base.

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AT & High Incidence Disabilities: Independence is Her Goal

An Interview with Karen Janowski, Assistive and Educational Technology Consultant and Special Education Instructor, Simmons College, Boston, MA

"In education, there often appeared to be an insufficient level of appreciation for promoting independence among all kids, especially those with high incidence disabilities, and in promoting methods that are successful in that regard," declares Karen Janowski. "That's what originally sparked my interest in assistive technology, because AT removes barriers to learning and gives kids additional ways to demonstrate what they know."



Karen Janowski

While appreciation for the goal of AT-aided independence has increased in the years since she earned her Masters in AT from Boston's Simmons College and adopted AT consulting in public schools as a career, there is plenty of room for improvement, she admits.

The independence movement's ignition button, she recalls, was pinpointed by AT authority Dave Edyburn. "Dave points out that the new language included in the reauthorization of IDEA in 1997, which stipulated that all students on IEPs had to be considered for AT, created four million students who were potential AT users."

Most of those students, she notes, were those with high incidence disabilities. "According to the U.S. Department of Education, 96% of children with disabilities attend schools within their own districts. Those are the high incidence kids who in earlier years had been overlooked, like my son, my husband – and swimmer Michael Phelps, the sensation of the 2008 Beijing Olympics. Those were the kids about whom I was sometimes advised, 'They've got great ideas, but they just can't get those ideas down on paper.' Those were the kids about whom it was often said, 'If they just tried harder...' or, 'If they can do it sometimes, why can't they do it all the time?' Those are the kids I work with, the ones who view themselves as 'dumb' or 'stupid' or 'incapable' or 'incompetent.' I say, 'We must value the skills of all of our kids and help them to succeed.'"

Keeping It Simple via Universal Design

Although the students with whom she works possess a broad range of abilities, her main focus, she says, “is on those who have been overlooked in their classrooms, the struggling learners.” For example, in her blog <http://teachingeverystudent.blogspot.com/> she states, “As an AT consultant, my passion is to remove the obstacles to learning for all students. It is important to make the curriculum accessible to all learners and provide opportunities for struggling learners to demonstrate what they know using the principles of universal design.”

In her work with children with high incidence disabilities, mainly learning disabilities (LDs) and cognitive challenges, she says that she has enjoyed success with several consumer technology applications. “I am an aggressive proponent of using technology that is readily available and easy to use, because I find that teachers are more willing to integrate what they have available to them and what they know how to use.”



She adheres to the “three-click” rule when it comes to website accessibility and classroom technology. “The idea is to get to the purpose of a website within three clicks. If more than three clicks are required the child is lost. The point is to keep things simple.”

In that category she strongly recommends Microsoft Word, “which has some features built in that really benefit all kids.” For example, she notes, “the ability to insert sound objects throughout a Word document can be a very powerful tool. Students can record answers, which enables those students ‘who have great ideas but can’t get them down on paper’ to record answers on a test right into the Word document.” Teachers, she says, can embed prompts throughout a Word document that students can listen to. “These devices and others make it much easier to help students demonstrate what they know.”

Another useful feature, she explains, is the ability to customize fonts, “which benefits students who prefer a specific font that makes it easier for them to read. It’s easy to change the font size, the font color, the font color background, the highlighting tool, the form tool, the outline tool, the collapse and expand tool.”

Also available, she adds, is a free text-to-speech download called WordTalk that is available from <http://Word->

Talk.org.uk. “This is a free text-speech program that highlights each word as the word is read and which provides a talking spell checker, and a talking thesaurus. Unfortunately, this free software tool is currently only available for PC use and is a Word add-on.”

“I Love Free Tools”

“I love free tools and there are several that are available in the second generation of the World Wide Web,” Ms. Janowski notes.

For cellphone technology, she recommends a program called Jott.com. “Jott.com is my new brain,” she exclaims. “It enables the user to call Jott.com, which responds when called by asking cellphone users who they wish to call. I often use Jott as a reminder source. Jott will ask me, ‘Who do you want to call?’ I record a reminder message about something I may have just worked on with a student, for example, and Jott will convert my speech to text and send it to me as an email or save it in my personalized Jott folder online. Jott is very, very useful to students of all abilities.”



She urges students to create Jott folders for specific school subjects. “That way they can record what their homework assignments are each day or the main points made in a particular class and what the class questions are for the day. They can send themselves lists of what they need to do when they get home from school or when they arrive at school.”

She continues, “I’ll be working today with a visually impaired college student and I will show him how to use Jott with his cellphone, the one tool that he carries with him everywhere. There are so many ways that Jott can be used and it is, I emphasize, a free speech-to-text service. One of my friends uses Jott’s reminder capabilities when she goes grocery shopping. It’s an excellent tool for our kids with high incidence disabilities.”

A Toolbelt for Universal Design: the Value of Text-to-Speech

Ms. Janowski’s blog features a description of her toolkit for universal design in all classrooms. One blog post has now been made into a wiki, “that talks about all the tools that I use, including text-to-speech programs, free literacy tools, free graphic organizers, free writing tools, free map tools and free study skills tools and free collaboration tools.”

Karen Janowski, blogger, highly recommends a blog post by Ira David Socol, (<http://speedchange.blogspot.com/2008/05/toolbelt-theory-for-everyone.html>) an adult with learning disabilities whose views have greatly influenced hers. "On his blog, Ira has written about what he calls 'Toolbelt Theory' in which I believe so strongly. He and I believe that we must offer these possibilities to our students and let them know what is available so that they can then develop their own toolbelts and choose the tools that work best to match their individual situations." Withholding this information, she declares, "would constitute malpractice on our part." Unfortunately, there are many high school students with LDs for whom text-to-speech has never been demonstrated. "The result is that they have struggled with decoding, fluency and ultimately, comprehension.

Text-to-speech must be available on every computer in every classroom. When it's available the kids who need it will use it, which places it firmly in the universal design category.

Referencing the IDEA requirement that the general curriculum be made available and accessible to all students, Ms. Janowski asks, "What do we do if they are reading two or three grade levels below their grade? They still require access to grade level curriculum, so are they inadvertently being set up for failure? When we provide them with text-to-speech they now have the ability to listen to grade level curriculum and not be at a disadvantage."



She continues, "We wonder why students who have reading challenges have a vocabulary that isn't as well developed. If they are choosing not to read or are reading at their readability level they are not being exposed to grade level vocabulary." Text-to-speech, she insists, provides exposure to grade level vocabulary. "Given its importance, text-to-speech must be available on every computer in every classroom. When it's available the kids who need it will use it, which places it firmly in the universal design category.

As a bonus, she notes, "research has shown that when text-to-speech is offered to students as a compensation method their reading scores improve. I saw this work for my high school-age son, although fluency remains an issue for him. However, because he was seeing multi-

syllabic words multiple times his reading did improve in high school. Unfortunately, by then his desire to read was gone."

With free text-to-speech, she often suggests that a higher quality voice be purchased. "The website <http://www.nextup.com/> has several excellent quality voices. Kids can listen to a number of voices before they decide on the one they like the most. The voices cost \$30-\$35 apiece. For those who are using the Mac, the Leopard Operating system has a very good quality voice built right into it at no additional cost."

She is enthusiastic about many Google applications such as customizing an iGoogle home page, Google Docs and Google Sketchup. Voice Thread <http://voicethread.com/> she notes "is another free multimedia tool that has impressive capabilities and is, in my opinion, the best tool for universal design for all grade levels, K-12. Voice Thread is an online media album that can hold any type of media – images, documents and videos – and allows users to make comments five ways, using voice (via microphone or video), text, audio file or video (with a webcam) and share them with anyone.

In the world of educational and assistive technology, she says, wikis and blogs are an effective way to impart information for use by educators, parents and students. "Anything digital is now accessible to about 99.5% of computer users. Once it's digital a voice can be attached to it, the text of the size can be easily adjusted and it can be retrieved easily. Organizational issues, therefore, can be greatly decreased. The less paper we use the better it is for our kids who struggle with organization."

Using the SETT Method to a "T"

When she evaluates students Ms. Janowski employs Joy Zabala's SETT (Student, Environments, Tasks, and Tools) framework, with a twist. "I add two additional 'T's' to that acronym: Training and Trials. I do this because I believe we have to include training as part of the recommendation." She provides guidelines around the training "because I never know how much experience the educational staff working with a particular student possesses. Training to the abilities of individual students, as well as those of educators and parents, is part of federal law as it applies to assistive technology." She adds "trials," she explains, "because how do we know if something is working? We do data collection. We have information on the student's performance without the use of AT and we can do data collection on the technology we are 'trailing.'"

Her preferred consulting environment is the inclusive classroom. "I think that that is the case for anyone working in special education. When we can keep our students in the classroom then they are not missing anything. Every time that they are removed from the classroom they are missing something that the rest of the students in their class are not missing."

On this subject Lisa Parisi, a fifth grade teacher who co-teaches with a special educator, is a favored blogger (<http://lisaslingo.blogspot.com/>). "I follow her online as part of my professional learning network. I finally got a chance to meet her recently. She blogged about how she used a co-teaching model in her class so that the students never left her class. Every one was successful with their state-mandated testing. She was successful, she wrote, because she was able to imbed universal design, keep her students in her classroom and modify the curriculum appropriately for all her students. I'd love to see all teachers adopt a similar approach."

Ms. Janowski also favors the video "Animal School," www.raisingmallsouls.com, which she cites in her blog. The video, she explains, is a metaphor for the various skills children are taught in school and how they approach learning. "Using animals as the metaphor in the video demonstrates that there are all kinds of learners in every classroom and reveals the unintended consequences when we overlook each child's unique skills." She adds that the video points out what can often happen to students who are removed from the classroom: "They can potentially lose their edge in the subject from which they are removed."

Injecting a note of irony, she says, "I can recall when my daughter, who does not have learning issues, wanted to be able to leave the class when she was in elementary school; she was jealous of the kids who were called from her class and wanted see what she was missing! I think, though, that if she was among the kids who had to leave the class 2-3 times a week she would not have been so envious."

The Value of Professional Development

Ms. Janowski continues to offer and encourage professional development, with a caveat. "One-shot professional development is not as effective as ongoing professional development, a theory that has been proven many times." In addition, she comments, "adult learners who take professional develop-



ment courses need to see the value of the course, just like kids in school do."

When possible she favors working directly with her students. "I try to expand my work with kids outside of the conventional classroom. The summer is a good time to help them develop their own technology tool kit because there are few academic expectations involved."



However, she says that her most effective teaching approaches occur in a scenario in which "teachers are on board and understand that all kids can learn and that all kids can benefit from the tools and strategies teachers build into their classrooms." As a classroom outsider, she concedes, "it is sometimes frustrating for me when I can't seem to impact positive change as powerfully as I think I should." When she evaluates students "I always talk with the educators and parents. I observe each student and get a sense of the school culture, because every classroom is different, as is every school and teacher. I try to recognize and respect those differences."

Ms. Janowski describes her approach to online professional development: "When I create wikis or online resources or videos that can be accessed via Teacher Tube <http://www.teachertube.com/> that ongoing ability to review what they learn in a just-in-time, anytime-anywhere-anyplace learning environment is the most effective. I provide blogs, wikis and videos to teachers to review as needed. What I am actually doing is modeling what I would love for them to make available to their own students."

Recently, she attended a meeting about a college student with attention, organization and vision issues. "The disabilities specialist working with this student was giving him verbal directions only. Not surprisingly, those directions were lost to the student. There was too much information for him to digest. Instead, she asserts, "the disabilities specialist needed to create a video for the student that featured her directions or use an alternative method for him to review at a later date."

The purpose of this approach, Ms. Janowski adds, "is that when the student returned home and wanted to review her instructions he could watch the video rather than trusting his memory. These are examples of what I believe are effective approaches. If I model effectively

for teachers my hope is they will model effectively for students.”

Language is used in the classroom “but does not work well for many kids,” she comments. “We give them verbal direction constantly. For kids on the autism spectrum, for example, that approach can be very overwhelming. Instead, we want to tap into their visual strengths. Many kids on the autism spectrum work very well with computers. Therefore, when we use the computer as an instructional tool we tap into their strengths.”

Barriers, Solutions – and Two Modest Proposals

Ms. Janowski says she faces several barriers in implementing her approach. “Time is a barrier. The lack of technology availability is a barrier. Sometimes a school’s information technology (IT) staff – what they block on school computers – is a barrier.” In the latter case, she points out, “the result is that the IT staff has been made the keepers of the knowledge. The drawback is that IT staff are typically not educators. Yet partnerships can and should be formed with IT staff so that we can help them see when they are erecting obstacles that may accidentally make learning more difficult.”

What she finds “amazing” is that in 2008, 11 years after the 1997 reauthorization of IDEA, when AT consideration was inserted into federal law, acceptance of this mandatory consideration is not yet universal. This represents a significant barrier, in her opinion. “The fact is,” she declares, “in order for AT implementation to be effective, AT must be discussed at every IEP meeting.”

What is necessary to overcome these barriers, she comments, “is a commitment by each state DOE [Department of Education] to address the value of AT for all kids.” In Massachusetts, she points out, “AT is buried in the IEP.” In other states, however, “there is a check box on the IEP that asks, ‘Has AT been considered?’ In some states, the answer defaults to ‘yes’ because AT must be considered.” On the state and federal level, she continues, “AT should be made available but it should not be an unfunded mandate. In addition, and this is important in an era of severe budget constraints at all levels, it should be made known that there are many free tools that are available online that were not available just a few years ago.”



Speaking of budget issues, she continues, “there are ways to mitigate them as they apply to AT and educational technology.” First, she declares, “we can get rid of textbooks, which create their own barriers. There is no evidence that textbooks are superior as learning tools over other instructional methods.”

Textbooks, she remarks, “are difficult for many kids for several reasons: their readability and their weight, to name just two. Textbooks are an inflexible modality. They are not accessible to many kids. A considerable amount of money would be saved if used alternatives to textbooks. It would help, too, if we re-evaluated assigning one-to-one paraprofessionals to so many students and instead spent those funds on effective technology that would help students become more independent.”

Her experience with one-to-one paraprofessionals has demonstrated, she says, that too many students learn helplessness and dependence instead of independence. “When students graduate, what happens when those paraprofessionals do not move on with them? If we targeted these two areas we would find that there would be funds available for AT.”

The free resources will be beneficial for many students but they are not appropriate for all students, Ms. Janowski claims. “In the case of free technology, one size does not fit all. Some students will benefit from accessibility to Kurzweil, WYNN, Solo by Don Johnston, Clicker 5 and Intellitools Classroom Suite to name just a few software tools. Those tools will be absolutely necessary for some students in our schools.”

The Supportive Role of Parents in Interventions

According to Ms. Janowski, when it comes to AT, interventions are typically parent driven. “At team meetings, the participants often do not want to address the AT issue because of financial concerns. I find that the most effective AT implementation results when parents provide the impetus. When I work with those teams, team members often tell me, ‘I know other kids who would benefit from AT as well.’ That’s the point: when AT is present in a classroom, other students can also benefit from it. This is an example of Universal Design for Learning: what benefits one benefits others. This approach offers multiple methods of representation, expression, and engagement that offer choices. This strategy is definitely part of a larger set of interventions based in Universal Design for Learning.”

According to Ms. Janowski, her student-centered approach helps students to be more proactive and to know what to ask for. It also helps inform IEP meetings, es-

pecially if a student can say, "Yes, this device works for me."

Such student advocacy in IEP meetings is often a challenge, she notes. "My experience has shown me that there is an imbalance. The student-teacher relationship is an imbalanced one. In my son's case, it was written into his IEP that he would self-advocate as one of the goals of his IEP. I disagreed with that provision. He had learned that when he advocated for himself, often little or nothing resulted. He learned that very quickly."

The other aspect of this imbalance, she explains, "is that kids are often reluctant to make requests because they know that they are dependent on their teacher for their grade. Educators must appreciate that imbalance so that we can help support and advocate for the student."

Through a Glass Brightly

Ms. Janowski sees several technologies that show significant promise. "Any technology that is seamlessly embedded and accessible to all students shows great promise," she declares. "I am very excited about the possibilities of the Pulse Smart Pen by Livescribe <http://www.livescribe.com/>. It can transform the life of almost any child with learning disabilities who struggles with notetaking. The device is a computerized pen, which requires the use of the company's special notebook that costs \$20 for four books. The user starts recording with his/her pen when the lecture or instruction begins. The student takes notes or writes keywords as they listen to the instruction. When the student reviews his or her notes, whatever keyword is touched by the pen will produce a recording of what was actually said by the speaker at the moment when the word was written. The device enables the user to upload notes to the computer."

As noted earlier, she sees great potential in cellphone technology. "Cellphone technology already puts the power of technology in kids' pockets. The irony is that we have told students that they cannot bring their cellphones into the classroom, but I believe that cellphone technology shows the most promise for students as a classroom tool. Beyond cellphone technology I believe that the wave of the future are online assistive technology tools such as WriteOnline by Cricksoft <http://www.cricksoft.com/uk/writeonline/>." Aimed at upper primary students and those in secondary schools and colleges, WriteOnline shows a scaleable page view, familiar tools and menus but features built-in tools for writing support, including integrated speech, word prediction, word banks and writing frames. Students can submit their

writing to teachers online for commenting and marking; teachers can benefit from pasted text and from analytic tools that track spelling corrections.

Ironically, Ms. Janowski hopes that the tech-rich classroom that she envisions will not include AT consultants like her. "To be truthful, I would love to become obsolete as an AT consultant, because my obsolescence would mean that AT consideration, integration, information and implementation is happening so effectively that I have worked myself out of a job and that I am no longer necessary. Unfortunately, however, we are not there yet – but I have hope."

En Español

On the FCTD website, we offer many of our AT resources in Spanish.

Guías

(Guides)

- **La Guía Informativa Familiar sobre la Tecnología Asistencial**
(Family Information guide to AT)

Informativos sobre la TA

(AT Fact Sheets)

- **Glosario de Términos**
(AT Glossary)
- **La Tecnología Asistencial**
(AT 101)
- **Tecnología Asistencial y el IEP**
(AT and the IEP)

Historias de Éxito

(AT Success Stories)

Visit our website to access these resources.

http://www.fctd.info/resources/index_es.php

RESOURCES

Articles

Assistive Technology and Mild Disabilities

By Dave L. Edyburn

Special Education Technology Practice (September/October 2006)

This article examines the challenge of recognizing and responding to academic performance problems among children with high incidence disabilities through the use of appropriate AT. Edyburn states that there must be a commitment to locating resources, strategies and tools that will ensure and support academic success. The article begins by discussing the definition of mild disabilities and the characteristics of children who live with these disabilities. Edyburn offers two scenarios to illustrate why, how and when AT intervention may be necessary in order to overcome the student's functional performance. Common questions/issues are highlighted and explained in a Q&A format. The article also provides a list of AT Resources, strategies and tools. His conclusion: "Leadership is needed to develop appropriate policies and practices relative to three phases of the assistive technology process: consideration, intervention, and outcome. It is also important to empower individuals and organizations to identify new interventions that will enhance the academic and behavioral performance of students with mild disabilities in ways that fully compensate for their disabilities."

<http://www.2learn.ca/institute/institute2007/institute07resources/SETP84mild.pdf>

Making Informed Assistive Technology Decisions for Students with High Incidence Disabilities

By Matthew Marino, Elizabeth C. Marino and Stan F. Shaw

Teaching Exceptional Children (2006)

The authors write, "There is a lack of AT specialists who assist schools and school districts with answering questions related to AT. This leaves special educators in a position where they must make decisions in relative isolation. The result can mean discontinuity in the level of AT special education services a student receives. For example, a student may receive comprehensive documentation and assessment of AT use in primary school, followed by diminished levels of AT consideration as he or she progresses through secondary school. This may affect the student's progress in the general education curriculum and/or transition planning. To circumvent this, school districts can develop a comprehensive approach to AT consideration that involves all stakeholders. To begin this process, special educators should

ask pertinent questions based on personal experiences with students, colleagues, and parents. These questions should focus on the types of AT that are available at a district level, the types and levels of support that are in place for students and teachers, the procedure for accessing available resources, and the protocol for assessing student outcomes."

http://www.redorbit.com/news/education/608187/making_informed_assistive_technology_decisions_for_students_with_high_incidence/index.html

Assistive Technology and High Incidence Disabilities

Presented by Karen Janowski

Simmons College (April 2008)

This PowerPoint presentation by noted AT consultant, Karen Janowski, describes various AT strategies and tools for students with high incidence disabilities. The presentation begins with technology for math instruction and then moves on to technology for organization, studying, note-taking and keyboarding. In each section, she offers both low-tech and high-tech solutions, possible classroom strategies as well as web resources that are available. The PowerPoint also offers more detailed information about using technology for students on the autism spectrum.

<http://astechers.wikispaces.com/space/showimage/SPND+456+Second+Weekend+PPT>

Websites

Kids on Wheels

The Kids on Wheels website, aimed at children who use wheelchairs, is designed to serve both children and their families. The site is split into two sections, one for children and the other for parents, teachers and professionals. Kids on Wheels offers an advice section, a message board, an online magazine, as well as resources for children who use wheelchairs. Parents are invited to share stories and strategies. The goal is to let children know the many options open to them while using wheelchairs. (Registration/subscription to the site is mandatory.)

<http://www.kidsonwheels.cc/>

Club NDSS

A resource for teens with Down syndrome, this website features an after-school and free time section and includes an explanation of the Individualized Education Program (IEP) process. The site's computer center section includes a tutorial on how to use the Internet.

<http://www.clubndss.org/>

Tools

Assignment Calculator

The University of Minnesota has created an online tool for students with a range of abilities to help them successfully navigate the process of organizing, researching, writing and submitting assignments. The assignment calculator breaks down the process into components and provides tutorials, reference materials and other resources for each step of the way. Steps include: (1) understanding the assignment; (2) selecting and focusing a topic; (3) designing a research strategy; (4) writing a working thesis; (5) finding and evaluating sources of information; (6) creating an outline and draft; (7) revising a draft and submitting a final product. The calculator provides a realistic timeline and achievement benchmarks. It is printable and offers the option of email reminders.

<http://www.lib.umn.edu/help/calculator/>

Create a Graph

Kids' Zone

National Center for Education Statistics (NCES)

U.S. Department of Education

NCES has created an online tool accessible via their website for helping children with high incidence disabilities understand and generate a range of graphs. The module provides a tutorial that explains the different types of graphs as well as how to create, and analyze the data presented. This module allows students to create their graphs online in a few easy steps. The student enters what type of graph they want to create, they then enter their data, customize their graph and the module gives them a graph which can then be printed and saved.

<http://nces.ed.gov/nceskids/createagraph/default.aspx>

Intellitools

This manufacturer's website provides information on curriculum tools to support preK-8 students with cognitive, visual and physical disabilities.

<http://www.intellitools.com/>

Guides

Adapting a Poem with Digital Pictures and Sound

Prepared by Samuel Sennott (October 2007)

alltogether.wordpress.com

This guide details step by step instructions on how to create accessible versions of poems that can be used both at home and in the classroom for students with disabilities. The author explains how to find copyright-

free poetry, choose pictures, sounds, citations, and transitional elements to create an adapted poem. The process takes full advantage of free web-based resources that are available to everyone. The fact sheet also provides instructions for text-to-speech software (Intellitools Classroom Suite, Clicker 5, PowerPoint, Flickr, PowerTalk, Audacity, Garage Band) and additional resources for SlideShare, Google Docs, and Voice Thread.

<http://otot.wikispaces.com/space/showimage/Adapting+a+Poem+With+Digital+Pictures+and+Sound.pdf>

Assistive Technology Consideration Resource Guides

Valdosta State University (2007)

This online guide is intended to assist educational teams in considering AT in students' IEP's. This guide identifies relevant tasks within instructional areas, standard tools, accommodations/modifications, and possible technology solutions for each instructional area. The guide addresses the following instructional areas: Writing, Spelling, Reading, Math, Study Organizational Skills, Listening, Oral Communication, Aids to Daily Living, Recreation and Leisure, Pre-vocational and Vocational, Seating, Positioning, & Mobility.

http://www.valdosta.edu/coe/ecre/ATRB/AT_considerati_resource.htm

Blogs

Ed Tech Solutions: Teaching Every Student

Blogger: Karen Janowski

Ms. Janowski is an AT and educational technology consultant specializing in the removal of obstacles to learning. She writes, "It is important to make the curriculum accessible to all learners and provide opportunities for struggling learners to demonstrate what they know using principals of Universal Design. The blog offers a wealth of posts that offer suggestions and tools for the classroom.

<http://teachingeverystudent.blogspot.com/>



KNOWLEDGE NETWORK MEMBERS

National Organization of Caring for Kids (NOCK)

The organization aims to connect chronically ill children with appropriate AT no matter the cost of the technology. Referrals are accepted through certified technology partners. The



recipient approval process is analyzed by several independent sources, including NOCK's medical advisory council. The organization's "Expressions" program provides augmentative and alternative communication devices for children with conditions that include cerebral palsy, autism, Down syndrome as well as other neurological diseases that disable speech and communication. After obtaining needed devices NOCK customizes them to meet the needs of individual children. The organization also considers requests for robotic and wheelchair mounting of AAC devices. Another program, "Wheelchairs for Kids," provides custom-molded wheelchairs with seating systems to children who need them. NOCK also considers requests for lifts, ramps, standers, toddler seating and other assistive and rehabilitative devices associated with seating and mobility.

For further information on NOCK, contact:
National Organization of Caring for Kids (NOCK)
P.O. Box 1822
Tacoma, WA 98401
Phone: (253) 851-6625
<http://www.nockonline.org/aboutus.asp>

Abilities!

Founded in 1952, Abilities! maintains facilities that educate and train young people with disabilities. Named for the organization's founder, Henry Viscardi, the Henry Viscardi School educates children with severe medical and physical disabilities. The school serves about 200 children annually in grades pre-K-12. The Smeal Learning Center is a training facility offering a comprehensive array of training and related services to the educational, research, technology and employment programs within Abilities!, as well as to organizations and business enterprises from the larger community. The Abilities! Global Institute identifies, re-



searches and promotes innovative and promising practices in special education and rehabilitation for individuals with disabilities through the establishment of collaboratives with universities. The Kornreich Technology Center showcases state-of-the-art AT for children and adults and provides information, demonstrations, technology evaluations, and training in AT and its impact on individuals with disabilities.

For additional information on Abilities!, contact:
Abilities!

201 I.U. Willets Road
Albertson, NY 11507
Phone: (516) 465-1400; (516) 747-5400
<http://www.abilitiesonline.org/index.aspx>

The STAR Center



The center is a model demonstration, resource and training center featuring AT, assistive aids and support services for children and adults regardless of their ability to pay. STAR serves children and adults with physical disabilities, learning delays, autism, attention deficit disorder, autism, spinal cord injury, cerebral palsy, developmental delays, neuromuscular disorder, head trauma, sensory dysfunction, communication disorder, vision loss or impairments and emotional and behavioral problems. Star Center programs include:

- Augmentative Communication: Evaluation and Training, which features an evaluation of speech, language, voice, communication, auditory processing, and/or auditory rehabilitation status
- AT Services: Environmental Controls and Workplace Accommodation, which provides options for individuals with disabilities to control their environment through the use of voice or movement-based switches or other adapted interfaces.

For more information on the center, contact:

The STAR Center
1119 Old Humboldt Road
Jackson, TN 38305
Phone: (731) 668-3888
Fax: (731) 668-1666
http://www.starcenter.tn.org/index.php?option=com_frontpage&Itemid=1

Texas A&M University: Project CABS



A&M's educational psychology department features the Comprehensive Academic and Behavior Support (CABS), a high incidence disabilities program that prepares students to critically evaluate and deliver high-quality, evidence-based prevention and intervention services. CABS prepares students to work not only with students with identified high incidence disabilities, but also with the general education and linguistically diverse students who are at-risk for behavioral and learning problems. According to the university, this program "is grounded in the scientific knowledge of effective practices and application of those practices in a three-tiered prevention/intervention model for meeting the needs of students with high incidence disabilities."

For additional information on Project CABS, contact:

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[http://epsy.tamu.edu/articles/high incidence disabilities](http://epsy.tamu.edu/articles/high%20incidence%20disabilities)

T.K. Martin Center



The Mission of the T.K. Martin Center for Technology & Disability is to ensure that persons with disabilities are able to continually benefit from technological solutions and advances in the field of assistive technology.

In order to empower individuals with disabilities through leading edge technologies the T.K. Martin Center for Technology & Disability maintains a state of the art clinical, research and training program focusing modern technologies, in a comprehensive and integrated manner, to the needs of persons with disabilities.

<http://www.tkmartin.msstate.edu/about/>

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