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# ABLE in Context

FOR AND ABOUT ADULT BASIC AND FAMILY LITERACY EDUCATION IN PENNSYLVANIA

## Technology in ABLE: How, why and why now?

By Tana Reiff, ABLE Communications/ TIU Community Education Services

We are talking about tools to help achieve our goals, and our goals exist to underpin our students' goals.



When we talk about “technology” these days, we are rolling a lot of meaning into one word. Computers and other digital devices are “technology.” So is software, the incredibly complex digital code that makes the hardware functional. We also are referring to the Internet and the many forms it takes for purposes of communicating or conveying information. One definition of technology is the tools that facilitate humans’ ability to interact with, adapt to and control our environment. So when we talk about technology in adult education, we are talking about tools to help achieve our goals, and our goals exist to underpin our students’ goals.

Our immediate environment is a classroom, and the administrative office that supports it, but the broader environment is the family, society, the world of work, the global economy. It’s a very big environment, and we need all the tools we can find to help us live and thrive in it.

We asked ABLE programs how they are using technology tools right now. The 125 responses to our unscientific online survey contained a great deal

of interesting information. Almost everyone is using technology for data collection and reporting, of course. A majority use technology for program planning and organizational administration and a little less than half for student or volunteer recruitment. About two-thirds are using technology with students in basic literacy and adult secondary education; about half in ESL, workforce education, case management and transition instruction and less than a third in family literacy programs. More than four out of five have Internet access available to students, but type and degree of usage vary, mostly due to access issues, such as availability times and firewalls, and to the level of staff involvement.

Respondents estimated that about a third of their students are comfortable using a computer and few are not. A fairly high percentage have computers and even high-speed Internet access at home. A smaller number use “smart phones” (i.e., Internet access wherever they go), and a significant number participate in online social networking. In other words, learners in our programs represent society as a whole.

Overall, the survey told us there is enormous interest in developing ICT (information and communications technology) in adult education. This only makes sense. Few jobs today don’t use computers, thus the ability to use them is a prerequisite to most employment. Our students are well aware of this. Therefore, if we are teaching basic skills, using technology tools, we are preparing people for employment, crossing two hurdles in one leap.

Reality tells us we need to be using technology in adult education. That means knowing what tools are available, preferably at low or no cost, and how to apply them effectively. We also need to be efficient, as time is limited. For some, integrating technology into the curriculum is a major change, especially if computers have not always been part of one’s life. We do not need to know exactly how everything works to be able to use it, but we do need to be open to new ideas. Resistance is counterproductive; energy is better spent selecting and employing the most useful tools for the purposes at hand. As we adapt to our environment, we enable our students to do the same. ■

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**MISSION STATEMENT**

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*The mission of the Pennsylvania Department of Education is to lead and serve the educational community, to enable each individual to grow into an inspired, productive, fulfilled lifelong learner.*

**FROM THE BUREAU DIRECTOR**

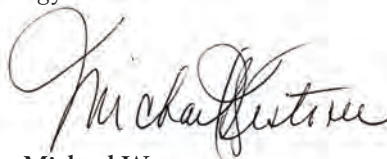


**K**eeping up with our field is always important, and *ABLE in Context* is designed to help us do that. As technology becomes ever more ubiquitous, we need to look at ways its applications can support adult education and family literacy. So we've devoted this issue to looking at technology in this educational context, and we hope you'll get some inspiring ideas.

For years, ABLE has been using technology for data reporting to meet accountability requirements, and the Web for information dissemination. To allow fuller and broader participation, our statewide Distance Learning Project ([padistancelearning.org](http://padistancelearning.org)) collaborates with Pennsylvania ABLE agencies to provide opportunities for adult learners to prepare for the GED® Tests, develop workplace skills and/or improve their reading, writing or math skills—anytime, any place and at their own pace. We also provide online professional development courses and collaboration tools, and save travel and meeting expenses by holding webinars for program administrators.

A new report from the Council for the Advancement of Adult Literacy (CAAL) acknowledges that "Technology is no panacea for solving the nation's adult education and workforce skills problems, but ... it must be a central component of any serious national effort to improve and expand service on the scale needed. For one thing, ... the adult education and workforce skills system the Commission calls for cannot accommodate more than a fraction of adults in need without the help of technology. For another, we now live in a world that functions increasingly in a technology encompassed mode, and learning and work are less and less accessible to those who cannot use technology. Strong technology skills are essential for adults seeking to improve their knowledge, skills and English ability, and this is the case whether the goal is to attain a GED [sic] or to enroll in further education or job training."

Granted, the huge topic of technology can be overwhelming. In this issue of *ABLE in Context* (full of hyperlinks to try) we glimpse at what is going on now and what is possible, in Pennsylvania and globally, and we'll continue the technology discussion in future issues.



**Michael Westover**  
Director, Bureau of Adult Basic and Literacy Education

**The Basic Elements of ICT\* Literacy**

\*information and communications technology



**Access.** Knowing how to collect and/or retrieve information in digital environments.



**Manage.** Organizing accessed information for retrieval and future application.



**Integrate.** Interpreting and representing information from multiple sources, using ICT tools.



**Evaluate.** Judging the quality, relevance, usefulness or efficiency of information.



**Create.** Generating information by adapting, applying, designing, inventing or authoring information in ICT environments.



**Communicate.** Communicating information to meet needs of various audiences through use of an appropriate medium.

**REFERENCE**

McCain, M. (2009). *The Power of Technology to Transform Adult Learning: Expanding Access to Adult Education & Workforce Skills Through Distance Learning*. New York, NY: Council for the Advancement of Adult Literacy.

Available as a PDF file at no charge at [www.caalusa.org/POWER\\_OF\\_TECH.pdf](http://www.caalusa.org/POWER_OF_TECH.pdf)

# Web 2.0 in your adult classroom

By Destiny Long, Distance Learning Project/TIU Community Education Services

No secret: applications of technology are becoming ever more integrated into our lives. There's online banking, websites for catching up with old friends and cell phones that act as mini-computers. It's hard to imagine that not so many years ago, most people did not have a cell phone, or a computer at home.

Technology also presents amazing—and free—opportunities for teaching and learning. As learners transition from our programs to jobs and postsecondary schools, and grow as parents, they will need technology skills. Keeping up with rapid changes can feel daunting, but the first step is to become aware of and more comfortable with what is available. Then you can begin to plan how these tools can enhance your instruction and provide learners the opportunity to gain valuable technology skills.

“Web 2.0” refers to the capacity for user involvement with online content. We used to find information online that someone else put there. Now, anyone can add and interact with text, photos and videos. We have become the Internet's authors.

The Internet can be an empowering tool for helping learners express themselves, connect with others and acquire new knowledge and skills. As you consider ways to integrate technology into your practice, consider three questions:

1. What is the purpose of this technology?
2. What skills are needed to use this technology?
3. How could this technology enhance what I'm currently doing?

What follows is a summary of currently popular, free Web 2.0 tools. You provide the hardware, Internet access and facilitation. To avoid being overwhelmed, I recommend you try

one item for starters. You may also want to check with your technology support to make sure you can access the sites you choose. Use the three questions above to make a plan for implementation. Remember, even if something doesn't go exactly as you had planned, everyone will be learning in the process. Have fun using technology with your learners and I think you'll be amazed at the results.

To learn more about using these technologies for instructional purposes, click on the links if you are viewing this article electronically, or type the name into a search engine. You can also contact your PDC or Distance Learning Technical Assistant for more information.

## WEB 2.0 TECHNOLOGIES FOR POSTING CONTENT (TEXT, IMAGES)

### ■ Blogs

**How it works:** A blog is short for “Web log,” an online publishing tool enabling an author to maintain a journal. Posts can be based on events, announcements or topics (e.g., tips for reading to children). Readers can comment on posts but cannot edit or add posts.

**Examples:** [Blogger](#), [Wordpress](#). [Twitter](#) is a blog with a 140-character limit.

**Instructional uses:** A blog is a fun way for learners to practice writing and critical-thinking skills. Use for journaling, essay writing, program or classroom updates and announcements, tracking learning activities and progress, critical evaluation of writing, follow-up information or resources for a professional development offering or guest speaker.

### ■ Wikis

**How it works:** A wiki is a living online document that allows users to add content or edit existing content. A history of the changes and who made them can be viewed by contributors to the page.

A wiki differs from a blog in



that many people can add content and change other people's work.

**Examples:** [Wikipedia](#), [PB Works](#), [Wikispaces](#), [Adult Literacy Education Wiki](#)

**Instructional uses:** A wiki can help learners work together to create content. It can be a great way to record collective knowledge in one place. Wikis can be used for group projects and writing, building a class word bank with definitions that students write, peer review of writing, editing of writing with changes tracked, learners collaboratively developing a student handbook or building a professional knowledge base.

### ■ Instant Messaging

**How it works:** Instant messaging (IM), or chat, allows two or more people to send text or voice messages to each other immediately. It is faster than e-mail, and a running record of the conversation is documented since new messages are posted below the previous message. Users can also show live video, send files and play games.

**Examples:** [AOL Instant Messenger \(AIM\)](#), [Skype](#), [Yahoo Messenger](#)

*Continued*

## TECHNOLOGY, CONTINUED

**Instructional uses:** Instant messaging can be a way for learners, teachers and tutors to interact at a distance in realtime. IM can be used for teachers' and tutors' online office hours where students could reach them from home if they had questions, learners could communicate with learners from another agency like online pen pals or learners could play online word games like Scrabble to build spelling and vocabulary skills.

### WEB 2.0 TECHNOLOGIES FOR SOCIAL PURPOSES

#### ■ Social Networking

**How it works:** Social networking websites allow users to build online communities of friends, family members, co-workers or people with similar interests. Users add content to a Web page template that includes a personal profile. They can then permit others access to the page. Interaction tools include photo albums, blogs, chat, message boards (or "walls") where people can post comments and online games. There also are sites for managing and sharing Web bookmarks (favorites) with other people or accessing your own from any computer.

**Examples:** [Facebook](#), [MySpace](#), [LinkedIn](#), [Ning](#); social bookmarking: [Delicious](#), [Diigo](#)

**Instructional uses:** Social networking can have a role in education, although many agencies block these sites to comply with Internet policies. Social networks can be used to promote your agency's services, build online learning communities, post announcements and resources, share favorite instructional sites or network with colleagues.

#### ■ Media Sharing

**How it works:** There are many websites for sharing photos or videos. Some let you use your own photos to create videos with text, narration and/or music. Podcasts are a way to share audio files that can be played online, downloaded to a computer or CD or played on an MP3 player. You can also share Power-

Point presentations online.

**Examples:** Photo sharing: [Flickr](#), [Picasa](#), [Shutterfly](#), [Snapfish](#), [Kodak Gallery](#); video sharing: [YouTube](#), [TeacherTube](#); create your own videos: [Photostory](#), [Animoto](#), [Voicethread](#), [Jing](#); audio: [Audacity](#) for recording, [iTunes](#) for podcasts; share presentations online: [SlideBoom](#), [SlideShare](#))

**Instructional uses:** Images, video and audio are powerful instructional tools. There are video cameras and digital cameras that can produce quality media for \$100 or less. A microphone that plugs into a computer starts at around \$20. Learners could use this technology during class time or borrow the materials to use at home. Examples of media sharing for instruction include using photos to show a process or procedure; documenting a child's routines to make a schedule for the child; creating a picture dictionary of words; creating a digital storybook using images with audio narration; using audio to help emerging readers; learners recording themselves reading to increase fluency; showing online videos that demonstrate skills; creating videos to share; creating videos to demonstrate computer skills that learners can reference anytime; creating materials to market your program or sharing student success with others through images, video and audio.

### WEB 2.0 TECHNOLOGIES FOR COLLABORATION

#### ■ Project Workspaces

**How it works:** Various websites allow multiple users to work together on projects at the same time or asynchronously. Sites include tools for sharing or collaborating on files, posting to discussion boards and creating Web pages. Some sites, like Google Docs, allow you to work in online Microsoft Office documents (Word, Excel, PowerPoint) even if you don't have the program on your computer—a great way to learn how to use these programs.

**Examples:** Project workspaces: ([Google Groups](#), [Wiggio](#), [Google Docs](#), [Moodle](#)); Create your own website ([Google Sites](#), [Wix](#))

**Instructional uses:** Collaboration and teamwork are an important part of learning and the world of work. Help learners see how technology can provide ways for people to collaborate and practice teamwork. Create a Google Group for students to share resources and have online discussions related to a class topic; post lessons, resources and links or have learners collaborate to create a document. Use Google Docs to teach word-processing and spreadsheet skills, have learners create a website about themselves or a certain topic and share with others, and use these sites to create learner portfolios.

#### ■ Web Conferencing

**How it works:** A Web conference, a.k.a. webinar, provides a way for people to meet online when a face-to-face meeting is cost-prohibitive or not feasible. Programs include the ability to talk, show video from a webcam and view documents. Some also allow you to show your desktop to the participants. Participants can use a whiteboard to write comments or illustrate a point. You may also record your meeting for viewing at a later date.

**Examples:** [DimDim](#) (free room for up to 20 people), [Elluminate](#) (free room for up to three people), [Oovoo](#)

**Instructional uses:** Web conferencing can be a great way for distance learners to communicate with each other and the teacher at the same time, or to present a guest speaker. Recording the meeting makes it available later for someone who couldn't attend, or for anyone's reference. Uses for Web conferencing include demonstrating a topic for a group of distance learners at the same time, learners collaborating from different locations, teaching to multiple sites, building a library of resources and holding staff meetings when people work at multiple sites. ■

*Special thanks to Tom McClain from TIU 11 Technology Services Department for his contributions to this article and the accompanying illustration concept.*

# Technology in workforce and transition instruction

By Suzanne Webster, Workforce Education Research Center/Penn State

A recent National Institute for Literacy report found that “Adult learners across the literacy and language spectrum show strong motivation to gain computer literacy skills, perceived as key to work advancement.” (2008) Based on responses to a recent Bureau of ABE survey, Pennsylvania adult education providers are successfully motivating learners by offering opportunities to use computers and the Internet to develop basic computer skills and expand their access to information and their knowledge about jobs, careers and postsecondary education. The Workforce Education Research Center (WERC) at Penn State has supported providers in developing work-focused programs using the Foundation Skills Framework since 2000. Technology supports development of the Foundation Skills as learners transition from the classroom to work or to postsecondary education or training.

## EXPLORING FUTURES

According to survey results, providers are currently using technology in mostly conventional ways; however, this is changing as younger, more tech-savvy learners enter adult education programs. Survey respondents most commonly reported using the Internet for career exploration and job searches, and e-mail to submit résumés and job applications. Much less frequently, providers are using the Internet to explore postsecondary options, connect with local PA CareerLink Centers or access online resources to build basic academic and work-related skills or content knowledge. Others use basic business software to help learners develop marketable work skills. As one survey respondent noted, they continue to work with “older adults [who] have never

used a computer and are recently unemployed”; however, programs are increasingly serving younger adults who often enter programs with advanced knowledge and experience with technology, including the newer technologies. In fact, one survey respondent reported, “Most [students] are actually ahead of the rest of us with handheld devices and new technologies.” Some more innovative uses of technology include use of Google Groups, Skype and Moodle to connect with and engage learners.

Computer and Internet use are not the only types of technology WERC-affiliated practitioners integrate into their work-contextualized classrooms. Many use videos, such as the Pennsylvania Cable Network’s workplace tours and Public Broadcasting System’s Workplace Essential Skills series, to contextualize instruction. Wikis, simple Web pages that individuals can edit together, help teach effective communication. To teach work skills, some teachers are using standard office equipment, timeclocks, cash registers, digital cameras and measuring devices.

An agency in the southeast focuses its classroom instruction on the Foundation Skill “Uses Technology.” The curriculum includes a computer literacy course that staff developed using a United Way grant, e-mail and Web-based resources such as ESL Job Find ([www.esljobfind.com](http://www.esljobfind.com)) and Wikibooks. Move Up and literacy students learn the basic computer skills needed for job searches and technology skills needed in the workplace. In this project-based learning experience par-

ticipants use the office phone system to make inquiries, the copier to produce packets and the fax machine to send weekly class hours to their caseworkers.

A program in northwest Pennsylvania uses technology specific to a high-priority healthcare occupation, Certified Nurse Assistant (CNA). The class focuses on the basic math skills needed to enter area CNA training programs



Mike McMonigal, TIU II, works with students on computers at the Lewistown Pennsylvania CareerLink.

and to succeed on the job. This focus also is used to introduce vocabulary used in GED® math. Basic math skills are taught using authentic situations and technology, such as electronic thermometers and blood-pressure monitors. Students work together learning how to take and chart temperature and blood pressure, using this information and their math skills to determine heart rate zones, average classroom blood pressure and median class blood pressure.

WERC ([www.pawerc.org](http://www.pawerc.org)) provides resources to aid in developing work- and transition-oriented instruction based on the Foundation Skills Framework, along with links to regional employment sites such as PA Workforce Development, [www.paworkforce.state.pa.us](http://www.paworkforce.state.pa.us), PA Department of Labor and Industry, [www.dli.state.pa.us](http://www.dli.state.pa.us) and the Center for Workforce Information & Analysis, [www.paworkstats.state.pa.us](http://www.paworkstats.state.pa.us). ■

## REFERENCE

Silver-Pacuilla, H. (September 2008). *Investigating the language and literacy skills required for independent online learning*. Washington, DC: The National Institute for Literacy.

# Technology in Family Literacy

By Susan Mansuetti, Bureau of ABLE

Pennsylvania's emphasis on technology is apparent as one scans the Department of Education's Web portal, including a goal to "graduate students capable of thriving as productive citizens in a high-tech society." If we want our children to be successful in their use of technology, then it only makes sense for our programs to emphasize its use in family literacy classes.

The National Assessment of Educational Progress (NAEP) has drafted a framework for the assessment of technological literacy. According to the draft, someone who is technologically literate has an understanding of technology that enables them to use, manage and assess technologies that are relevant in their lives, including information and communication technologies that are most in use today (Manzo, 2009).

What technologies are relevant to our family literacy students and how are they being used? Many of our programs serve ESL populations. Visual learning is very important to learners who lack English language skills. This is especially important in areas in which there may also be cultural differences, such as parenting education, early childhood education and interactive literacy activities (ILA). As part of their SEQUAL\* projects, both York and Chester County Even Start programs videotaped parents reading to their children and learning and interacting with their children. Viewing these videos as well as educational videos like *Language is Key* helps parents to understand exactly what a behavior looks like. Seeing themselves or their children makes it extremely relevant to their own lives.

Mid-State Literacy Council's family

\*SEQUAL: Statewide Educational Quality for Family Literacy is a program-improvement project in Pennsylvania.

literacy program works with incarcerated fathers. ILA has been a difficult component in this situation. Using tape recorders to communicate, these fathers have been reading books to their children. Their instructors send the tapes with the books to the children. The tapes, letters sent between the parents and children and lessons learned in the parenting class have enabled the fathers to take better advantage of a simple form of technology, the telephone. Before family literacy, conversations between the fathers and their children were very stilted. A shared book and a letter has enabled the conversations to reach a higher level and enabled the fathers to become better parents.

## WHAT ABOUT THE COMPUTER AGE?

How do the family literacy programs in Pennsylvania access computer technology in ways that are relevant to their lives? Participants in the TIU 11 Mifflin County Even Start program often discussed the lack of activities in the area. As part of their SEQUAL project, the staff taught students how to use the Internet to research opportunities for family fun in the county, and to improve their communication skills when using the telephone to gain additional information. The students learned how to create an online calendar to share this information with others. In addition to discovering activities that encouraged family participation, this project was linked to workplace Foundation Skills.

Many programs use the Internet as a source of information on parenting topics, ILA activities and financial and health literacy or activities and educational games for children. Parents at the TIU 11 Juniata County Even Start access their children's grades from school websites. Parents can also increase the communication with the school by



**A mom at York Even Start helps her child increase his literacy skills using educational software.**

e-mailing their children's teachers.

## PROFESSIONAL DEVELOPMENT

Family literacy program staff uses the Internet for lesson planning, sharing information and data with each other and partners and creating skills-building activities to teach technology skills. Citing difficulties in meeting with part-time employees, Mansfield University's family literacy program created a Yahoo group to enable staff to meet virtually to plan how to integrate the components of family literacy and share in their knowledge of the families they serve and the requirements of the family literacy program.

To conserve valuable family literacy resources, professional development is being offered in different technological settings. In addition to the online courses that have been offered for the past few years, practitioners have had the opportunity to join online book discussion groups. Training has been offered through webinars, and the SEQUAL planning group is looking into ways for participants to interact no matter where they are located. As practitioners become familiar with new technologies, they will increasingly incorporate them into their classrooms. In turn, helping parents become tech-literate will build confidence when working with their children. ■

## REFERENCE

Manzo, K. K. (2009). NAEP draft on technological literacy unveiled. *Education Week*, published online: August 11, 2009 at [www.edweek.org](http://www.edweek.org).

## Are you using technology in innovative ways?

*One question with many answers from many perspectives across the state*



**W**e provide educational software including a variety of tutorials that students can take home and load on their computers. We also provide laptops loaded with programs for students to borrow who have no home computers.

**Kathleen Bentley**  
Perry County Literacy Council

**I**demonstrate and help students search the Web. Using highly effective search terms, students entering medical training have found archived college biology videos from various reputable colleges to enhance, review or teach concepts. Students practice notetaking with the videos and develop note cards for unfamiliar material. Others have found algebra tutorials while others have found medical terminology audio segments. Students share search terms and what they like about the sites they find.

**Mary Lou Friedline**  
PIC of Westmoreland/Fayette, Inc.

**E**very adult learner is taught to, and is required to, sign in and out on a database every learning session. All learners' goals are entered into a database on a computer reserved for that purpose. Learners add new goals as they are identified, or put a date next to a goal that was accomplished.

**Carole Sawchuck**  
Tri-County OIC/Central PA Literacy Council

**W**e purchased a family plan of cell phones for our paid staff to maintain contact with our students, and part of that communication is done through text messages. Students prefer to text rather than talk on the phone, so we are meeting them where they are!

**Vanessa Garcia**  
Grove City Education Center for Adults

**O**ur GED/Transition to postsecondary students frequently do searches related to the curriculum content. They are also involved in photojournalism and posting autobiographical materials.

**Charles Patrick Smith**  
Stairways Behavioral Health, Erie

**I** use YouTube to show students video clips pertaining to what we are studying. They can also play interactive online games.

**Sarah Bollinger**  
YWCA Tri-County Area Adult Literacy Center

**O**ur Education and Technology Institute programs are currently utilizing a blog format for recruitment and we have our own page on Facebook.

**Carol L. Thomas**  
PIC of Westmoreland/Fayette, Inc.

**W**e developed two self-paced Web-based trainings for tutors. One is for the tutors themselves, to help them prepare curriculum, and one is for tutors to use with students.

**Jamie Barron**  
Somerset County Technology Center

**F**or some students, such as non-native English speakers, reading a poem like the Raven can seem like nothing more than words. However, when you include a reading/video of the poem through resources such as YouTube, students are better able to relate the content to learning. Traditional delivery methods don't always reach all learners. This technology inclusion appeals to the multiple intelligences and provides more opportunity for all students to understand the material.

**Ann Janowicz, Marywood University**

**W**e like the idea of student blogs and are promoting this with our volunteer tutors.

**Jacci West**  
Wayne Pike Adult Literacy Program

**W**e provide digital cameras "on loan" to students. Instructors are making instructional videos for their students. Students are provided laptops to use in class. We use Inspiration, Comic Strip and Visual Thesaurus software.

**Rich Gacka**  
Stairways Behavioral Health, Erie

**O**ur program established a gmail account and instructors communicate with students interested in receiving and sending assignments through e-mail. It has been very popular with GED® students. This year we created a site where our instructor posts activities and resources that students can complete at a distance to improve skills in reading, math and writing. The critical piece is that students must complete a required number of activities and communicate by e-mail weekly. They also must visit the center in person once a month to discuss progress.

**Sue Wagner**  
Fayette County Community Action Agency

**L**ately I've been using a free, online whiteboard application called ScribLink [[www.scriblink.com](http://www.scriblink.com)]. It allows you to share a whiteboard with a student to go over a subject in real time. It is especially useful for math, but is also great for something like grammar. It is really simple to use: Just go to the website and e-mail a link to anyone you want to join. The students seem to like it a lot. What I find particularly interesting and innovative about this technology is that it brings the interactive elements of the classroom into the student's home—at no cost. I think there is a huge, emerging potential for such technologies.

**Rick Searle**  
Distance Learning Project / TIU II

# Information barriers are falling fast

By Richard Gacka, ABL Learning Differences Project/Stairways Behavioral Health

The ABL Learning Differences Project promotes professional development around the three basic stages of information processing: receiving, processing and expressing. Information exists in many forms and is transmitted through verbal, motor, affective, visual and kinesthetic channels. In plain English, we receive, process and express ideas by hearing, seeing, manipulating, feeling or speaking. This simple model explains conditions reflected by terms such as dyslexia, aphasia and dysgraphia, complicated by Attention Deficit, Working Memory Deficit or Executive Processing difficulty. That's a lot of study in a nutshell.

Enter information technology—the development of better tools, from quill pens to electric typewriters to word processing to speech-to-text. Tools make the process easier and more efficient by reducing barriers, such as reading for you or helping to move muscles that do not move well on their own. Let's focus on how technology supports reception and expression of information.

## RECEIVING INFORMATION

Eyeglasses and magnifiers are basic technology; without them, half the world's population would not be able to receive the printed word. But that's just the beginning. Computer screens can be set to enlarge text. Screen colors can be manipulated to improve figure-ground contrast. Hearing aids, small amplifiers and FM transmitters can increase sound to enable hearing. Special earphones can filter out distracting noise and aid concentration. Plastic overlays reduce glare; so do tinted glasses but are much easier to use. Audio books, now downloadable to an iPod or MP3 player, allow students to hear literature, find out about distant places or learn how to do something, all of which was previously not possible for someone who cannot

read well. Now it's easy to embed a voice into written documents, photos or slideshows. Pocket-sized electronic dictionaries and “widgets” or “apps” on a cell phone define and pronounce words and even provide visual examples. A pen-like device scans text and pronounces it for students who have difficulty reading.

Text-to-speech technology switches input from visual, coded information (reading) to an automatically decoded auditory process (listening). If you can see it on the computer screen, it can be read aloud. For printed documents, the latest copiers convert any printed page into a format that electronic text readers can translate to speech. So, nowadays, if you can see it, it can be read to you. You can even choose the kind of voice you want to hear.

Modern technology can present material in ways that were once impossible. Remember learning about dinosaurs by looking at drawings? Today you can step into an environment with life-sized dinosaur figures moving and roaring ([freesciencelectures.com](http://freesciencelectures.com)). IMAX theaters, eye-movement sensors, wireless phones, e-mail, talking cars, global positioning systems (GPS) that tell you directions and supermarket displays that announce reduced prices—this is the present, not the future. No doubt about it, barriers to receiving auditory, visual and sensory information are falling quickly.

## EXPRESSING INFORMATION

Once upon a time we had two ways to express ideas: speak or write. But some students cannot control their finger movements, or cannot quickly

**WATCH FOR** a new Technology section on the ABL LD Project's website. Visit [web.mac.com/ldconsultants](http://web.mac.com/ldconsultants) or e-mail Dr. Gacka, project director, at [ldconsultants@mac.com](mailto:ldconsultants@mac.com).



1922 magazine advanced useful new ideas.

formulate verbal answers, or simply do not understand the language. Technology is eliminating these barriers to expression. A special computer mouse uses palm or arm movement rather than finger control. Scanning “language boards” allow students who have only breath control to indicate choices to a computer that then clearly speaks words or sentences. Students no longer give reports; they present PowerPoint shows with audio and embedded digital images they captured using a pocket-sized digital camera.

Students who have difficulty writing could have someone write or type their reports. But now, speech-to-text software converts their dictation to text. Drag in a few pictures, spiff it up with some document-creation templates, and students who hated to write can now design their own publications. Graphic-organizer software allows students to visually display complex relationships and organization. Insert hyperlinks and learning is extended to websites, files or other media sources. Twittering and text messaging are simply small-group, electronic visual and/or auditory interaction. Free or inexpensive webinars allow students to have realtime pen pals, or show you on *your* computer what they have on *their* computer, even if that computer is the size of your hand. They literally have a mentor at their fingertips.

The days of only two choices are long gone. ■



## Websites we'd like to share

*Teachers and administrators told us they wanted to know what websites their peers would recommend. It's impossible to rank, rate or endorse sites, but here are a few that your fellow ABLÉ practitioners are currently recommending.*

### FOR A VARIETY OF PURPOSES:

**National Institute for Literacy:** [www.nifl.gov](http://www.nifl.gov)  
A key resource for a variety of adult education concerns, including family literacy, workplace education and ESL. Join one of NIFL's e-mail discussion lists!

**LINCS (Literacy Information and Communication System):** [www.nifl.gov/lincs](http://www.nifl.gov/lincs)  
This NIFL project provides teaching and learning resources by and for literacy practitioners.

**PBS LiteracyLink:** [litlink.ket.org](http://litlink.ket.org)  
Designed to help adult students advance their GED® and workplace skills, as well as professional development for literacy educators and general information to the public about literacy. Ann Janowicz of Marywood University specifically recommends the PBS "Nova" site: [www.pbs.org/wgbh/nova](http://www.pbs.org/wgbh/nova) for "videos and information on anything and everything." Ann's favorite: Flight of the Monarch Butterfly.

**ThinkFinity Literacy Network:** [literacynetwork.verizon.org/TLN](http://literacynetwork.verizon.org/TLN)  
Jennifer Sheppard, Mayor's Commission on Literacy, recommends Verizon's literacy site as "a tool for professional development: courses, a program assessment tool, the library section, etc."

**U.S.A. Learns:** [USAlearns.org](http://USAlearns.org)  
Described itself as "A free site for adults to learn English and improve basic reading, writing, speaking and life skills"; recommended by Cathy Roth, Literacy Council of Lancaster-Lebanon.

*Carol Miller, Community Learning Center, Philadelphia, has lots of favorites. Here are a few:*

**National Library of Virtual [Math] Manipulatives:** [nlvm.usu.edu](http://nlvm.usu.edu)

**Marshall Adult Education:** [www.marshalladulthoodeducation.org](http://www.marshalladulthoodeducation.org)  
"Great source of all sorts of reading activities"

**Hulu:** [www.hulu.com/channels](http://www.hulu.com/channels)  
"Videos on all topics"

**Common Errors in English Usage:** [www.wsu.edu/~brians/errors/errors.html](http://www.wsu.edu/~brians/errors/errors.html)  
"Terrific site for questions about common errors in the English usage and grammar"

**Reading Games:** [www.mrcpl.org/literacy/lessons](http://www.mrcpl.org/literacy/lessons)  
"Good activities for beginning readers"

**Data 360:** [www.data360.org](http://www.data360.org)  
"Good source of relevant graphs"

**Math Drills:** [www.mathdrills.com](http://www.mathdrills.com)  
"The best site for math worksheets at all levels!"

**The World Factbook:** <https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html>  
"Terrific source of facts and statistics about countries and continents"

**GeoHive:** [www.geohive.com](http://www.geohive.com)  
"Great graphs, world statistics, charts, geography"

**Grammar Bytes!:** [www.chompchomp.com](http://www.chompchomp.com)  
"Good grammar activities"

**MathRealm:** [www.mathrealm.com/Resources/PDF\\_general.htm](http://www.mathrealm.com/Resources/PDF_general.htm)  
This link takes you to lots of free math worksheets, but much more on the site.

*From Erich Smith, Philadelphia OIC:*

**Read Write Think:** [www.readwritethink.org](http://www.readwritethink.org)  
"Excellent site for multi-level lesson development. The Essay Map is a great resource."

**GCF Learn Free (Salvation Army):** [www.gcflearnfree.org](http://www.gcflearnfree.org)  
"Great for introducing online learning via basic math skills"

**Purple Math:** [www.purplemath.com](http://www.purplemath.com)  
"Lesson plan + worksheet/answer keys"

**Contemporary Books:** [www.mhcontemporary.com/pages/gedsatellite](http://www.mhcontemporary.com/pages/gedsatellite)  
"PowerPoints to accompany books and lessons. You can customize each PowerPoint." Note: This is a commercial site.

### FOR WORKFORCE EDUCATION:

*Angelic Hardy, Workforce Education Research Center, lists her top choices:*

**The Center for Workforce Information & Analysis:** [www.paworkstats.state.pa.us](http://www.paworkstats.state.pa.us)  
"Labor market information that can be used in all areas of adult education ... excellent resource for contextualizing instruction for today's workforce." PA

CareerLink® offices use same information. Hard copies of most materials on request.

**O\*Net Online:** [online.onetcenter.org](http://online.onetcenter.org)  
"national database containing occupational summaries to learn more about occupations ... specific tasks, skills, tools and technology used on the job. It also identifies the educational and training requirements necessary for the occupation."

**Demonstrations for Ontario Literacy Practitioners:** [demonstrations.alphaplus.ca](http://demonstrations.alphaplus.ca)  
"learn more about assessment, create your own assessments with their interactive online tool or search through a database of sample assessments"

### FOR ESL:

**Randall's ESL Cyber Listening Lab:** [www.esl-lab.com](http://www.esl-lab.com)

Merwin A. Soash at the Bayard Taylor Memorial Library, Kennett Square, likes this site for its "various competency levels, contextual, situational, realia and includes reading, writing, speaking, listening, grammar, idioms, vocabulary exercises, quizzes and links for review and practice."

**Dave's ESL Cafe:** [www.eslcafe.com](http://www.eslcafe.com)  
"so many areas of help such as Stuff for Teachers, Stuff for students, Stuff for Everyone and also a section on jobs," says Mary Hamilton from the Literacy Council of Mercer County.

### FOR FAMILY LITERACY:

*Lori McMonigal of the Family Literacy Professional Development Project recommends:*

**PDE site's Early Childhood section:** [www.education.state.pa.us](http://www.education.state.pa.us)  
Provides references for early childhood educators. Address is changing soon.

**Washington Learning Systems:** [www.wlearning.com](http://www.wlearning.com)  
"Great resources (many are free!) that support interactive literacy activities"

**National Center for Family Literacy:** [www.familit.org](http://www.familit.org)  
"Current information and resources about family literacy"

### FOR ADMINISTRATORS:

**The Center for Rural Pennsylvania:** [www.ruralpa.org](http://www.ruralpa.org)  
"An extensive database on statistics to use in grants or presentations," says Tom Wojcicki of Somerset County Technology Center.

This list will not get you to the end of the Internet! Share your favorite sites by e-mailing the site name, URL and reason you use it, along with your name and agency, to Tana Reiff, [treiff@tiu11.org](mailto:treiff@tiu11.org). ■

## Snapshot of a tech-infused classroom

By Erich Smith, Philadelphia OIC

The idea of using technology in adult education has gained steam in the last few years as contextualized learning and workforce training have become the main focus in our classrooms.

The introduction of free and low-cost online curricula for distance learning has addressed the issue of affordability and relevant online software for instruction. These curricula allow teachers like me to provide online instruction individualized to learners' needs and goals. While these online curricula can be used at a distance, it is also important to focus on how online technology, software and tools can be used within the classroom.

### INSTRUCTIONAL PREPARATION

For me, instructional technology is about mining the Internet for relevant resources that can meet individual student needs but also to manage the lessons I develop for each individual or group. One of the most valuable tools I use is the social bookmarking site [del.icio.us.com](http://del.icio.us.com) to locate, research and organize educational websites. Each site found in [del.icio.us](http://del.icio.us) is rated by how many other users have also bookmarked them. I'm part of several social/knowledge networks of [del.icio.us](http://del.icio.us) members around similar interests. I enjoy researching relevant sites that other members with the same interests are using.

In Google Docs ([www.google.com](http://www.google.com)), I use the free Google Apps spreadsheets to create and manage lesson plans, goal sheets and student portfolios, which I can share with other instructors and student stakeholders. Additionally, Google Docs has a template section containing predesigned forms that can be used as is or, with a little Excel know-how, tailored to specific instructional and reporting needs. If you go to [YouTube](http://YouTube) and type Google Docs or Google Spreadsheet in the search box,

you can view some great videos that fully explain the use of these tools (which can also be used for professional development). And because Google Docs is a "cloud application," I don't have to carry around a flash drive because my documents are available wherever I have Internet access.

### CLASSROOM MANAGEMENT

Online GED® practice-test sites such as Steck-Vaughn's [gedpractice.com](http://gedpractice.com) allow me to gauge my students' readiness for the GED Tests (for free). I print results for a record of progress and test readiness. Another great site is [GCF LearnFree](http://GCF LearnFree), which introduces students to the basics of online learning (for free). I print out a lesson for one group of students, assign lessons on the website for others and refer those with proficient computing skills to a class with an online instructor, which moves them toward becoming more independent online learners.

Using Google Docs to post discussion questions that a student or group of students can respond to is a great way to engage independent learners. Google Docs is also an excellent way to introduce students to different aspects of online learning, from posting to understanding cloud computing.

One of the main benefits of engaging students in online learning is that you are creating an alternative pathway to higher education. With proper preparation, most students who will have a job with shifting schedules can take advantage of this option.

### COLLABORATIVE ADMINISTRATION

"Transparent" student tracking is a way to foster collaboration among organizations. When I found myself e-mailing the same documents to several student stakeholders, managers

and data collection departments, I once again turned to Google Docs. Every stakeholder can access the same document and post student-related information that we can share. (Be sure to use codes or student reference numbers,



Erich Smith, left, works with students in a computer lab.

not names or Social Security numbers.) An attendance sheet can not only report students' daily hours but also centralize responses to the attendance reports. At our EARN\* Center this is useful to the employment counselors in monitoring clients' VFS attendance hours remotely and indicating on the report a student's status (employed, training, terminated, etc.) so that we teachers can be better informed.

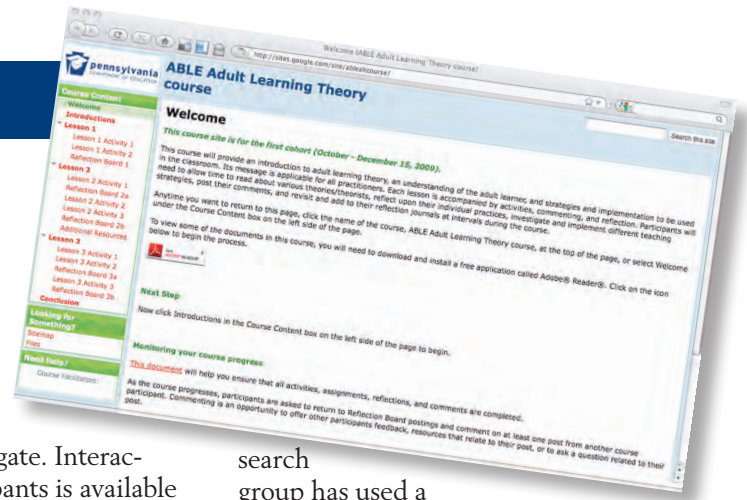
I don't mean to be "cheerleading" for Google, but with budget cuts constricting most agencies' ability to invest in customized or even off-the-shelf software, Google offers widely accepted applications that mimic MS Office, along with collaboration tools that allow organizations to network with each other through partnership program reporting and data collection.

At the end of the day, technology alone will not lead us to all that we envision to happen once a computer is brought into our classrooms, but it presents us with the opportunity to open doorways to higher education, employment and lifelong learning opportunities. ■

\*Employment Advancement Retention Network, a welfare-to-work program

# Growing as an educator without leaving your desk

By Susan Reeve, Bureau of ABL



Technology is changing the way we work, think and relate to each other. It is also changing the way we deliver professional development. With online technology, it is easy to share ideas and build communities across a distance.

## TAKING COURSES ONLINE

Course management systems are a popular and growing way to learn and connect with peers. These systems create a classroom environment at a distance. Participants complete and post assignments, discuss topics and review and respond to other participants' assignments. Courses are usually offered over a period of weeks, just like face-to-face courses, with weekly assignments. Here are some of the ways the ABL Professional Development System (PDS) has been using online courses:

- The Southeast PDC has offered an online book study for administrators and instructors using some of Dr. James Stronge's materials.
- The South-Central PDC has been offering online courses for a number of years, including their new teacher orientation.
- The Workforce Education Research Center offers online courses, including an Introduction to the Foundation Skills Framework.
- Family Literacy has used online courses for new administrators, Intro to Family Literacy 101 and Setting the Stage for Story Time.

Because of expense and accessibility issues, Google Sites is being used to simulate the classroom experience. Not all the features of a course management system are available, but courses developed on the Google Sites

platform are accessible and easy to navigate. Interaction between participants is available through posts.

- A statewide course on Adult Learning Theory is being offered as well as a Central-Northeast Administrator course using *The Three-Minute Classroom Walkthrough* (Corwin Press).
- The Distance Learning Project has designed and implemented two online courses in Google Sites. One is an online study circle; the other is about developing supplemental distance learning lessons.

Google Groups is a slightly less formal way to create a community of learners. Last year, Learners' Lives as Curriculum® participants were able to post lessons and activities and receive feedback from their peers across the state. Tutors of Literacy in the Commonwealth uses Google Groups to keep tutors and tutor coordinators up to date.

## BLOGGING KNOWLEDGE

Blogs are online journals posted by an author with regular updates. This is becoming a popular way to share new information and in some cases replace newsletters. The Southwest Professional Development Center (PDC) has begun sharing information of interest to the region through a blog; Tutors of Literacy in the Commonwealth has begun a tutor blog; the Central-Northeast PDC maintains a technology blog; Family Literacy has used a blog to follow up on their financial literacy training.

## GETTING TOGETHER ONLINE

Wikis allow multiple users to create and edit Web pages. The Workforce Education Research Center's action re-

search group has used a wiki to post questions, progress reports, suggestions, comments, contact information and documents.

E-mail lists are used extensively by the PDS for discussion and sharing of information and may be the most familiar type of online learning to many ABL teachers. E-mail lists are used for workforce groups, tutor groups, administrator groups and PDC information. Several projects use Google Groups for e-mail discussions.

Web conferencing allows people to "meet" at the same time, at a distance. The Bureau of ABL uses Elluminate® for statewide webinars, while the Southeast PDC uses it for an administrative network. Other online applications are available, including Adobe Connect, used by the Case Managers' group last year, and DimDim. The Distance Learning Project uses webinars to share information with learners and teachers. The Northwest PDC's GED® network is experimenting with two Web conferencing applications, DimDim and ReadyTalk.

If these new terms have your head spinning, then relax and consider trying just one of these or the many other computer-based professional development opportunities. If you are intimidated by technology, remember that there is always the human connection, and the facilitators of these offerings are more than willing to walk you through the steps. Take note of the things that interest you and talk to your friendly ABL PDC staff to learn more. Once you've tried, you will find computer-based professional development can be enriching and challenging. ■

## What's new in e-Data v2

By Peggy Grumm and James Yeager, ABLÉ Tech

**A**BLÉ Tech, the Bureau of ABLÉ and the PDE Center for Data Quality and Information Technology spent the past year designing a new data-management system for ABLÉ-funded programs. Now, programs have begun using e-Data v2. This system, which replaces the original e-Data system, has many new features making it easier to collect and use data for program improvement and reporting.

The e-Data v2 system includes new fields to assist you in collecting important information. For example, you will see changes on the Adult Details screen. The system will assign students a PAsureID or match them with one if they recently attended public school. These unique ID numbers will assist the Department of Education in tracking students throughout their education.

Additional new fields include:

- Student e-mail address
- How the student found your program
- Reason for participating
- Reason for leaving
- Noneducational support services received on entry
- Program-specific current year enrollment date
- Program-specific exit date

In the Assessments section, agencies will be able to enter multiple assessments and several administrations of each assessment for each adult.

In the past, shared student information has created problems for programs. In e-Data v2 each agency serving a shared student has its own Program Year Details Section for that student. Each agency can also enter its own assessments and goals for a shared student.

### FAMILY INFORMATION

For family literacy programs, maintaining consistent information on families has been a challenge. E-Data v2 links families, adults and children, and you will be able to roll over all members of a family, eliminating the need to create new families and children. This feature will limit duplication in the system. New income criteria and the number of family members are also now collected in the family details section.

### CUSTOM GOALS

E-Data v2's goal section includes changes that make goal setting and reporting easier. Core goals have a goal exit date, clearly defining when a student has completed one of these goals. Secondary goals have several new selections to better track student progress.

A new program-specific and student-specific goals section allows you to create custom goals for a group of students or a goal that is unique to one student. This gives you the ability to track small steps toward larger goals.

### IMPROVED REPORTS

Reports have changed substantially. You now have the ability to select criteria to produce customized reports. Although the reporting feature is more expansive, you can still export data. Access to a template for exported data lets you create queries to explore data in more detail for program improvement and local reporting.

These are just a few of the areas where you will notice changes to the system. You are encouraged to attend training offered regionally or online. For more information on the new e-Data v2 system and related training, contact ABLÉ Tech at [abletech@psu.edu](mailto:abletech@psu.edu) or toll-free at 877.857.8869. ■

## Do-it-yourself professional development

**M**any ABLÉ-funded programs are looking for simple ways to fulfill professional development plans. Here's an idea: Use *ABLE in Context* as the text for a **group reflection activity**. Start by selecting an article. Print copies of it directly from the PDF and distribute to the group. Set a time to get together, or make arrangements to meet online. Everyone should have paper or a laptop for jotting notes. Decide who will be the facilitator. Then follow these steps:

1. Take a few minutes to read (or reread) the article.
2. Establish a focusing question, or purpose. For example:
  - How does the practice described in this article relate or apply to individual or agency practice?
3. Go over the rules:
  - Speak one at a time; do not interrupt.
  - No discussion or side conversations.
  - Express your point of view, but avoid judgment of other group members or the material itself.
4. Rounds: While the facilitator takes notes, each member of the group gives a very brief response to two or more questions (one at a time), e.g.:
  - What stands out about this article?
  - For what reasons do you believe or doubt the thesis of this article?
  - How does the article relate to your instructional practice?
  - How can you apply this knowledge to improve practice?
  - What would you like to know more about?
  - What would be some next steps?
5. The facilitator summarizes each round, noting common themes and significant differences.
6. Open the session for discussion.
7. Facilitator summarizes the session.
8. Follow up with an e-mail summary of the rounds and discussion and/or another meeting to further explore the topic.