

# Essential tools of the trade: An assistive technology specialist shares her toolkit

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*Note: This article is the second of a series that examines the identification and validation of a core set of tools used by specific groups of professionals.*

The marketplace offers a dizzying array of choices. As many computer users have discovered, it is not difficult to fill a hard-drive. To facilitate technology enhanced productivity, Edyburn & Gardner (1998) have advanced the concept of technology toolkits as a means of identifying and validating the core tools and productivity strategies that enhance our work. However, the lack of resources to locate and build a toolkit means that most efforts to utilize technology to enhance instruction or professional productivity must be do-it-yourself. As a result, it seems appropriate to foster discussion within the professional community about technology tools that are essential for our work.

In this article, we introduce readers to the first author who works as an assistive technology specialist. Marsye briefly describes her experience with technology and the context of her work. Then, we examine the types of tools she has selected for the technology toolkit and how these tools enhance her professional productivity.

## Meet Marsye, an assistive technology specialist

Hi, my name is Marsye Kaplan and I am a speech language pathologist by training and an assistive technology specialist through years of experience. I've spent the past 24 years working with children who require some type of technology accommodation, whether it is augmentative, daily living, or computer access. The students' needs drive my curiosity and desire to find a solution. Conferences are a regular part of my continuing professional development. Attending national and international conferences sponsored by Closing the Gap; the American Speech, Language, and Hearing Association; and the United States Society for Augmentative and Alternative Communication, as well as state and local conferences, are essential for enhancing my knowledge and skills.

I am the Assistive Technology Facilitator for the Baltimore County Public School District, serving more than 100,000 students in 162 schools. My responsibilities include, but are not limited to student identification and assessment; equipment and software purchasing; inventory control; and training students, staff, and parents. Our school district is unique in that I am an integral part of our Department of Information Technology. Since I participate in all functions, this organizational structure has enabled us to promote the concept of inclu-

sion from within the system. My work also extends beyond the school district to two local universities. I am an instructor for Towson University and Johns Hopkins University where I teach courses that focus on augmentative communication and technology accommodations for students with mild disabilities.

## Essential tools of the trade

A technology toolkit is simply a means of organizing a set of technology tools that have the potential to enhance professional productivity. We began by discussing the kinds of tasks that Marsye regularly engages in. We used these tasks as a framework to organize the technology tools that she regularly uses in her work. In Figure 1 we summarize Marsye's productivity toolkit.

As part of my role as Assistive Technology Facilitator, I provide on-going staff development for teachers and administrators regarding the use of technology in the classroom. Common AT practice dictates the consideration of both low- and high-tech accommodations for all students. Reflecting on the tools in my toolkit, I realized that I use both low-tech strategies that do not require plug-in help and high-tech tools that require electrical support.

## Low-tech tools

As with my evaluation of students, it is important to look at low-tech accommodations as a part of the package. I find that I too utilize many of these accommodations.

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The most important tool in my kit is my appointment book (*DayTimer*). It is never far from me. I am able to organize all aspects of my life within its covers. Information regarding daily activities, future plans, phone numbers and even personal information about family is at my fingertips. Software is now available for most organizers to enable you to customize your appointment book. A look through my brief case will turn up items such as highlighter markers to help visually cue important information. *Highlighter Tape* (Lee Products), easily removed, is used for marking text that cannot be permanently marked. *Post It Notes* and *Flags* (3M) have become a mainstay for locating and organizing information and papers. One might find them extending out of a neon colored folder that helps draw my attention quickly to a frequently used template. As with our students, organization of daily appointments and assignments is a must. A tiered folder rack serves to alert me to the next day's appointments. Each folder is marked with a colored *Post-It* indicating the date and time of the appointment. A different color is chosen for each month. This method allows me to quickly see what is on tap for the next day. For appointments made three months in advance, a handy hanging file with each month tabbed holds a special place for that folder. As the month approaches, one needs to simply pull the folder and place it on the tiered rack. If only we could pop a memory chip into our brains... instead, I use a voice memo minder to remember details of a conversation or suggestions made. This quick and handy reminder system enables me to jot down the information later without forgetting what I said! I must acknowledge the work of Richard Wanderman for inspiring me to consider these many tools (Wanderman, 1997).

### High-tech tools

The school district that I work for supports the use the Macintosh computers. I currently utilize a Macintosh *PowerBook* with an Active Matrix display (Apple) and a *Zip Drive* (Iomega) and in my office a desktop *PowerMacintosh*. When attending conferences the *eMate* (Apple) provides a practical means of note taking. Additional support is provided through the availability of both a Flat Bed Scanner (Apple) and Sheet Feed Scanner (Visioneer).

### Core tools for leadership

A significant portion of my job requires collecting and organizing information. I use both *Microsoft Works* (Microsoft) and *FileMaker Pro* (Claris) for organizing and maintaining records on student referrals, evaluations, recommendations, and inventory of equipment. *FileMaker Pro's* relational capabilities allow me to have access to a greater depth of information. For example, I can access a student's file and find the equipment on loan, as well as accessing other related files such as vendor or purchase information. I also use *FileMaker Pro* to maintain a database of my daily activities. This enables me to monitor the types of activities and, when required, provide documentation to administrators on the assistive technology services that have been provided. This strategy can be quite beneficial when requesting additional funding and staff. Finally, our entire office uses *FileMaker Pro* through the local network to access technical support and the repair service.

Report writing is facilitated through the use of *Microsoft Works*. I have developed a template reflecting my report needs. The use of *Type It For Me* (Riccardo Ettore), an abbreviation and expansion program has sped up the report writing process. *Auto Menu Pro* (Nite Light Software) has also made access of the file menu easier and faster. The *Boardmaker* (Mayer-Johnson) program has enabled me to produce a variety of announcements regarding staff development. Through the use and modeling of this program, announcement recipients are able to see additional applications of *Boardmaker* prior to attending the workshop.

It is almost impossible to remain current with the ever-changing technology. However, Internet access has enabled us to maintain a higher level of knowledge. My toolkit has expanded even more with the emergence of our district's Web site for assistive technology. Come visit our resources by accessing the school district <<http://www.bcps.org>>, selecting the Department of Information Technology, and finally, selecting assistive technology. The Web site offers information about the assistive technology services provided in our school district, updated information on training opportunities, an avenue for sharing new ideas and a forum for frequently asked questions.

Figure 1

Productivity Toolkit of an Assistive Technology Specialist
<b>Low-tech Tools</b>
appointment calendar
highlighter markers
highlighter tape
<i>Post It Notes, Flags</i>
hanging folders
file folder rack
<b>High-tech Tools</b>
Macintosh <i>Powerbook</i>
<i>Zip Drive</i>
Scanner
voice memo minder
<i>Microsoft Works</i>
<i>FileMaker Pro</i>
<i>Type It for Me</i>
<i>Auto Menu Maker</i>
<i>Boardmaker</i>
<b>Core Tools for Leadership</b>
Information Management
<i>FileMaker Pro</i>
<i>Microsoft Works</i>
Report Writing
<i>Microsoft Works</i>
<i>Type It for Me</i>
<i>Auto Menu Pro</i>
Presentations
<i>PowerPoint</i>
lightpointer
Don Johnston <i>Switch Interface</i>
Switches ( <i>Jelly Bean</i> , Radio Shack)
<i>Remote Tread Switch</i>
<i>Inspiration</i>
<i>Teach Timer</i>
<b>Core Tools for Assistive Technology</b>
<b>Assessment: Written Communication</b>
Frameworks
SETT Framework (Zabala)
Pencils to Computers (Center for Technology in Education)
Peripheral keyboard devices (writing alternatives)
<i>AlphaSmart</i>
<i>DreamWriter</i>
<i>eMate</i>
<i>Laser PC 5</i>
Scanners
Talking word processors (reading /writing support)
<i>IntelliTalk</i>
<i>Write:OutLoud</i>
Organizational strategies
<i>Inspiration</i>
Low-tech
Motivational software
<i>ClarisWorks for Kids</i>
<i>Hollywood High</i>
<i>HyperStudio</i>
<i>Kid Pix</i>

My office sponsors an array of trainings throughout the year for administrators and teachers. *PowerPoint* (Microsoft) is used to design the on-screen presentation. It offers the capability of creating handouts that represent the presentation, note pages for the speaker, and an outline view. It is easy to customize presentations for a particular audience by hiding particular slides that may not fit the needs of the audience. Projection equipment is a must, enabling the audience to take advantage of the information. To further ease the presentation process and demonstrate the use of assistive technology, a Don Johnston *Switch Interface* is used with a switch to facilitate mobility while talking and accessing *PowerPoint*. Since we try to design our training sessions to encourage active participation, the software program *Inspiration* (Inspiration) provides an arena for sharing ideas and enables us to capture the information and reorganize it for all to see. A lightpointer (see your local office supply store) enables the presenter to highlight information being discussed.

Prior to the beginning of each session and through the session, during timed activities, the *Teach Timer* (Stokes Publishing) has proven invaluable. The device is made for use with an overhead projector. The projector illuminates the countdown, allowing the observer to manage their time more effectively. The device chimes at one minute, as a warning, and then three times when it reaches zero.

## Core tools for assistive technology assessment

The majority of referrals to my office involve students with learning and written communication disabilities. As students are referred to my office, we initiate Joy Zabala's *SETT Framework* (Zabala, 1995) in an attempt to meet the student's needs within the school environment. Along with the *SETT Framework*, a document entitled, *From Pencils to Computers* (Center for Technology in Education, 1997) is utilized to help teachers address learning differences in their classes prior to having outside assistance. This document is currently being provided to each school throughout our school district. A task force supported by the Maryland Department of Education and the Center for Technology in Education at Johns Hopkins University developed it. The document was designed for general educators, providing

them with a simple evaluation process and remedial suggestions for a weakness seen in written communication disabilities. Utilizing the *SETT Framework* and suggestions noted in *From Pencils to Computers*, staff is generally surprised to learn how easily they can incorporate and integrate educational materials to enhance the success of all students.

When it is determined that a student requires more than the teacher can successfully provide, we then look at a series of available accommodations. For example, when students experience difficulty in writing, we consider a whole range of options from low-tech to sophisticated high-tech devices. We may use low-tech adaptations such as highlighters, special lined paper, felt tip pens, highlighter tape, and pencil grips. A variety of peripheral keyboard devices are available for quick and easy access to word processing. My office has used devices such as *AlphaSmart Pro and 2000* (Intelligent Peripheral Devices), *Dream Writer* (NTS Computer Systems), *Laser PC 5* (Perfect Solutions), and the *eMate* (Apple). Software accommodations might include programs such as *ClarisWorks* (Claris), *ClarisWorks for Kids* (Claris), *Microsoft Works* (Microsoft), *Inspiration* (Inspiration), *Hollywood High* (Theatrix), *Kid Pix* (Broderbund), and *HyperStudio* (Roger Wagner). As we consider various options, the Office of Assistive Technology provides schools with information regarding pros and cons for various strategies and devices.

The use of scanners may also be discussed with regard to students having reading and writing disabilities. The ability to scan in documents for the student with a physical disability to work on, or for the student who is unable to read the text and have it read is a significant advance in the educational environment.

Talking word processors, such as *Write:Outloud* (Don Johnston) and *IntelliTalk* (IntelliTools) have proven invaluable for students having difficulty in the reading and writing process. They provide support for the student who needs to hear his work as he types as well as the student who has difficulty reading and has text scanned into the word processor. This format allows the student the opportunity to read the words they know and use the talking word processor for assistance for those unknown words.

Motivation for writing is a factor frequently seen in students with writing difficulties. Programs such as *Inspiration* (Inspiration) or *Hollywood High* (Theatrix) can have a significant impact on the students' desire to write, providing them with a challenging and fun mode of putting their ideas down on paper.

## Concluding comments

The purpose of this profile was to describe the work of one assistive technology specialist and the core tools that support her work. We believe that the opportunity to explicitly describe our vision of how technology enhances professional productivity will contribute to the process of developing consensus about the core tools of our profession. As we organized the tools that Marsye uses on a regular basis we discovered that this toolkit has tremendous applications for the college courses we teach as well as in-service workshops. We are hopeful that many readers will also see the value of this type of activity as a means of focusing attention on the essential tools of the trade and productivity strategies that enhance our work. We encourage readers to join the conversation by sharing frameworks describing the tools they use, productivity strategies that increase the value of a specific tool or debate the merits of similar tools.

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## References

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Wanderman, R. (1997) <www.ldresources.com>

Zabala, J. (1995). "The SETT framework: Critical areas to consider when making informed assistive technology decisions." Closing the Gap Preconference Workshop.

## Products

Apple Computer, 1 Infinite Loop, Cupertino, CA 95014; Phone 408-996-1010; WWW <education.apple.com>

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2500 East Northern Pkwy., Baltimore, MD  
21214-1113; Phone 410-254-5466

Clariscorp.com, 5201 Patrick Henry Dr.,  
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Ct., West Palm Beach, FL 33414-7128; Phone  
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