

**POCKET TECHNOLOGY:  
UTILITY IN GRADUATE PROGRAMS IN SPEECH-LANGUAGE PATHOLOGY**

Yvonne Gillette, Ph.D.

The University of Akron

Jean Blosser, Ed.D.

Villa Julie College

Handheld technology, especially pocket-sized, first took off with the engineers or computer-types. Pocket-sized technology seems to be taking off in more and more directions and for those who watch the market, models seem to be changing everyday. Palm and other manufacturers are following the model Apple used to sell their computers-getting them into the hands of teachers and kids to discover new uses. Soon, more and more students entering college will have had experiences with pocket-sized personal data assistants (PDAs). Medicine, pharmacy, nursing and other fields are expanding their uses as well.

Experimental and in some cases, typical uses by K-12 as well as higher education administrative can include online resources; anytime, anywhere access to email; online resources and references; student data access; calendar and scheduling access; word processors; organizers; contact information; and online collaboration. Medicine, nursing, and pharmacy have used the technology to have quicker access to reference material, track patient care, document visits, and transfer information. Obviously, these same functions can be completed through a computer. However, when mobility is the challenge, pocket technology may be hard to beat - with a possible stumbling block being the cost of wireless access. Currently, wireless networks in universities and hospital vary in their availability.

### **A Sample Of Student Use**

Student use of pocket technology may be in its infancy in speech-language pathology. In a sample of 25 students at the University of Akron, only two students used PDAs, while all 25 had a computer, access to the internet, and used email and all but two had a cell phone. Four had tried the technology, but only two pursued it and they primarily used the technology for calendar and address functions. The majority continued to use paper-based organizers, calendars, to do lists, and contact information lists. All but two students felt potential uses of pocket technology included client contact logs, scheduling clients, and keeping references handy, such as lists of ICD-9 codes. More than half agreed that PDAs would be a good resource for keeping track of professional expenses such as mileage, contact information for vendors or referrals, client information, clinical data collection, and billing information. Most students agreed that low cost, long battery life, portability, ease of learning, rechargeable batteries, expandable features, and capacity to store lots of information were essential features. Colorful screens, alarms, built-in telephones, wearability, or the capacity to perform text to speech or speak to you were not seen as essential.

In a trial use by three research assistants for three months, none of the three adopted the technology for themselves after the trial. The blocks to use included the time it took to enter data on the spot, worries about losing data, and worries about theft or loss. Two of three had models with attachable keyboards. They found the keyboards difficult to attach and when encased with the PDA, the keyboard made the package bulky for their briefcases or backpacks and added to the weight.

## Experimental Use With Clients

Clinical uses are also a possibility for PDA use. Currently, the Assistive Technology Research and Development Collaborative on Cognitive Disabilities began to explore the use of pocket technology with youth and adults who have cognitive disabilities, both developmental and acquired. The National Institute on Disabilities and Rehabilitation Research (NIDRR) sponsors the project (#H133A0101607A) administered by the Brain Injury Association of America. Each research partner conducts research on various segments of the total population. Partners and their populations include: The University of Akron, School of Speech-Language Pathology and Audiology (children and adolescents with traumatic brain injury or mental retardation), Moss Rehabilitation (adults with traumatic brain injury), Temple University (adults with mental retardation) and technology consultant, Spaulding Rehabilitation Hospital.

This collaborative partnership will investigate the use of the PDA as a cognitive prosthesis for memory and organization difficulties common to these populations. Data collection currently under analysis includes surveys of trends and perspectives in pocket technology use in the cognitive-communicative disability community and trials of pocket-technology use. The project intends to provide an interactive forum to share information that will be of growing use to families and individuals with disabilities as the technology becomes more and more prevalent. Currently, a catalog of pocket technology suitable for those with disabilities can be found at [www.biausa.org](http://www.biausa.org). The Website will also provide information on the project's progress as it grows. A virtual town hall meeting on pocket technology will be presented by project partners on March 26, 2004.

## **Uses And Potential Uses In Communication Sciences And Disorders**

As the technology grows in availability and acceptance, applications in communicative sciences and disorders will likely include clinical treatment, administrative functions and teaching. In clinical treatment, pocket technology may assist in documenting client information, tracking and charting behaviors, and documenting observations. Administrative uses can include documenting treatment hours, providing billing information, and scheduling. In clinical supervision, uses may be to track student performance, keep track of directions to off-campus sites, document impressions and observations, track hours and experiences, and review client data. Client data uses will need to be compliant with Health Information Portability and Accountability ACT (HIPAA). Special care needs to be taken due to the fact that information can be easily “beamed” from one PDA to the next. For example, instant access can occur when the student clinician and supervisor beam each other information or when wireless access to the Internet is possible.

Again, early adopters are likely to be those working in highly mobile situations who are willing to trade paper for pocket-sized technology. Since students are frequently highly mobile and without permanent workstations, they are the most likely to adopt pocket-sized technology. Student use may pave the way for more widespread use in the profession.