

Outcomes and Benefits—Challenges in the Assistive Technology Field

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Welcome to the first issue of *Assistive Technology Outcomes and Benefits* (ATOB), a joint publication of the Assistive Technology Industry Association (ATIA) and the Special Education Assistive Technology (SEAT) Center at Illinois State University! This transdisciplinary journal is anticipated to provide a meaningful forum for the discussion of innovative assistive technology (AT) approaches that result in outcomes and benefits for persons with disabilities. Until recently, little attention has been given to outcomes in the AT field. To address this problem, three federal projects have been funded to examine AT outcomes, and are approaching this daunting task from very different perspectives. Their recommendations over the next few years will drive future research and development activities. However, until the AT field better understands the scope of outcomes assessment and evaluation, ATOB will provide a venue for dialogue to facilitate understanding of issues that confront developers, practitioners, consumers with disabilities, and their families. The articles presented in this issue—both *Voices from the Field* and *Voices from the Industry*--reflect meaningful efforts at documenting outcomes and benefits from these varying perspectives. A brief overview of each of the articles in this issue is presented below.

The first article presents *Voices from the Field*--Dave Edyburn and Roger Brown, Assistive Technology Outcomes Measurement System (ATOMS) Project—who describe the theory, development, and research efforts of the one

of the three federally funded AT outcomes projects focusing on advancing our understanding of current and future practices.

Their article devotes specific attention on ATOMS research directed at validating selected components of a proposed outcome system based on a theoretical framework. The proposed system involves user-friendly data collection instruments, compiles information from multiple sources, and provides visual representation of the data to facilitate interpretation and decision-making.

In the second article--a *Voice from the Industry*—Patti Murphy, Dynavox Systems, describes the background and success of the Augmentative and Alternative Communication (AAC) Olympics project implemented in a Florida public school system. This highly successful consumer-focused event allows students with significant communication and physical disabilities to build AAC competencies through participation in a meaningful Olympics experience. The approach described includes multiple strategies to provide students with disabilities the structure to develop needed AAC competencies, coupled with needed community social and learning opportunities both for the students and their parents.

The third article—a *Voice from the Field* reported by Brian Wocik, George Peterson-Karlan, Emily Watts, and Phil Parette describe an innovative assistive technology (AT) preservice model implemented at Illinois State University in Fall, 2003. Drawing on national

technology standards, the context for the model incorporates both traditional approaches (coursework and experiential activities) and alternative approaches (on-line modules and hands-on evaluative activities). Data are presented that support the effectiveness of the alternative approaches, followed by a discussion of strategies for expansion of the outcomes measurement system to include a range of both teacher and student outcomes, including implementation with inservice audiences across Illinois.

In the fourth article--a *Voice from the Industry*—Linnea McAfoose, Dynavox Systems, discusses a case study of a 17-year-old high school student who communicates using a DynaVox 3100. Readers are presented with a discussion of a team approach employed by education and engineering specialists at DynaVox Systems who collaborated with the student to effectively match unique device features to the student's environmental needs, resulting in an increase in the efficiency of the student's communication capabilities. Of particular importance was the quality of life outcome described subsequent to the decision-making process.

In the fifth article—*Voices from the Field*--Sean Smith and Steven Smith, University of Kansas, describe a study designed to provide a mentorship training program that used special education and elementary education student

interns to assist teachers with their technology infusion efforts. This novel approach suggested that teacher mentoring supported by student interns (with limited technology expertise) can support AT integration efforts in classroom settings, although the authors caution that time, preparation, and support capabilities are integral to successful implementation of the approach.

In the sixth article—*Voices from Industry*--Rupal Patel, Sam Pilato, and Deb Roy, Northeastern University, present an interesting AAC development process employing a semantic two-dimensional image (meaning) vs. a syntactic (sentence structure) approach. The authors report that use of a meaning-based approach leads to more natural message construction. Of particular interest to readers are the potential benefits of the new design for persons with severe speech and motor disabilities, including more fluid, expressive and efficient communication.

Based on reader response to this first issue, subsequent issues will be published with the associated *Call for Papers* being made available at the ATIA website. We hope that you find the *Voices* contained herein--both from Industry and the Field--to be helpful and informative, and agree with us that they contribute to better understanding and communication within the discipline about AT outcomes and benefits.