Assistive Technology and the IEP

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The issues associated with assistive technology and the individual education plan (IEP) have grown in significance since the 1997 Reauthorization of the Individuals with Disabilities Education Act (IDEA). The mandate that every IEP team must consider assistive technology when planning the educational program for each student with a disability was intended to draw attention to the potential of assistive technology and ultimately increase the availability and use of assistive technology.

Nearly five years after passage of this landmark law, little evidence documents that the procedural or substantive requirements of the federal policy initiative has increased student access to assistive technology. Undoubtedly, when an IEP team (a) understands the importance and value of assistive technology, (b) has technical resources to evaluate student needs and select appropriate devices, and (c) has administrative support for providing assistive technology support services, the assistive technology outcomes are noteworthy for students and their families. However, when one or more of these critical ingredients are missing, the IEP process becomes a battleground.

The purpose of this article is to highlight a number of issues involved in IEP development and the inclusion of assistive technology. Several helpful resources will be highlighted for professionals and parents. Finally, several observations will be noted concerning future directions on this important topic.

Who Can Benefit from Assistive Technology?

A key question, often left unstated during assistive technology consideration, is who can benefit from assistive technology? Federal law is silent on this issue assuming that the local IEP team is in the best position to decide if a child’s needs can be met through technology interventions or other accommodations. As a result, school districts have failed to implement systemic screening processes to identify children who could benefit from assistive technology. Rather, the current system is predicated on individual advocacy. In practice this means that someone on the IEP team must raise the issue of assistive technology and advocate on behalf of an individual child since there is no system in place to routinely assess the ability to benefit from assistive technology.

Work by Golden (1999) seeks to address the question of who can benefit from assistive technology by offering expectancy benchmarks that can be
used to sensitize administrators to the gap between students currently using assistive technology and the expected number of students that could potentially benefit from assistive technology. To arrive at an estimate of the size of the population of students receiving special education that could potentially benefit from assistive technology, Golden developed conservative projections of the number of students who should be using assistive technology within each of the diagnostic categories in Missouri (see Table 1). The estimates were based on (a) the typical types of educational needs students have in academic areas, study skills, daily living, leisure/recreation, and program accessibility and (b) insight concerning the types of assistive technology that are available to address such needs. The purpose of this exercise is to offer some benchmarks for schools to use in a programmatic evaluation of whether they are adequately addressing assistive technology needs (e.g., if your school has a number of students with visual impairments who are not using any assistive technology, you should find out why...).

Table 1
Anticipated Assistive Technology Use

<table>
<thead>
<tr>
<th>Disability</th>
<th>% Expected AT Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaf and Hard of Hearing</td>
<td>100%</td>
</tr>
<tr>
<td>Blind and Visually Impaired</td>
<td>100%</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>100%</td>
</tr>
<tr>
<td>Deaf/Blind</td>
<td>100%</td>
</tr>
<tr>
<td>Multiple Disabilities</td>
<td>100%</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>50-75%</td>
</tr>
<tr>
<td>Autism</td>
<td>50-75%</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>25-35%</td>
</tr>
<tr>
<td>Health Impairment</td>
<td>25-35%</td>
</tr>
<tr>
<td>Cognitive Disability</td>
<td>25-35%</td>
</tr>
<tr>
<td>Speech/Language Disorder</td>
<td>10-25% *</td>
</tr>
<tr>
<td>Emotional Disability</td>
<td>10-25%</td>
</tr>
</tbody>
</table>

* Most students who need and/or use augmentative communication devices have an identified disability other than “speech/language,” thus the lower projected usage for this diagnostic category.


What Does it Mean to “Consider” Assistive Technology?

The issue of assistive technology consideration is a rather recent development. It’s origin can be traced to the Individuals with Disabilities Education Act Amendments of 1997 (Public Law 105-17) which contained a requirement for the Individual Education Program (I.E.P.) teams to consider assistive technology in the development of an IEP: “The IEP Team shall—(v) consider whether the child requires assistive technology devices and services.” [Section 614 (d)(3)(B) Consideration of Special Factors.]

Whereas some observers believe this language reflects a new federal policy, Golden (1998) argues that it simply formalizes a previous responsibility:

“The IDEA requires schools to provide AT if it is needed for a student to receive a free appropriate publication education (FAPE). FAPE can include a variety of services such as special education, related services, supplementary aids and services, program modifications or support for school personnel. AT, just like other components of FAPE, must be provided at no cost to parents. The specific IDEA requirement for schools to provide AT is as follows: 300.308 Assistive Technology

Each public agency shall ensure that assistive technology devices or assistive technology services or both, as those terms are defined in 300.5 - 300.6 are made available to a child with a disability if required as part of a child’s (a) Special education under 300.17; (b) Related services under 300.16; or (c) Supplementary aids and services under 300.550(b)(2).” (p. 4)

Golden’s analysis underscores the critical issue surrounding assistive technology use, that is: Free Appropriate Public Education (FAPE). Schools are required to provide assistive technology for students that need such tools, if they are necessary, for the student’s participation in and benefit from a free appropriate public education.

The historical implications of assistive technology and FAPE are unquestioned in the context of mobility (i.e., a powered wheelchair) and communication (i.e., an augmentative communication system). However, the consideration requirement
covers all disabilities and therefore issues like the following have emerged: Jimmy’s handwriting is not legible, therefore I think he needs a laptop computer. While such a claim and solution may indeed be certified by an IEP team [Of course, interventions other than a laptop computer may also be appropriate.], the budgetary implications of this mandate, when applied to high incidence populations, have created an environment where administrators are reluctant to approve requests for assistive technology for students with mild disabilities given the fact that they have 50 students like Jimmy within their building. How does one prove that one assistive technology (i.e., voice recognition software) is more appropriate than another (i.e., a pencil grip)?

The recency of the requirement to “consider assistive technology” has created a tremendous need for resource materials and staff development. Consideration models and resources developed by Bowser and Reed (2002, 1995), Chambers (1997), Golden (1998), and Zabala (2002, 1995) have directly influenced most state’s special education compliance plans and can be useful resources at the district and building level.

In practice, the mandate to consider assistive technology has been procedurally implemented. In most cases, the federal mandate is reflected on the IEP form simply as a question with a checkbox for the response: Has assistive technology been considered? yes/no. In most cases, additional documentation is not required to substantiate the decision or provide evidence of the alternatives that were considered. The assumption is that one or more members of the IEP team will be knowledgeable about the possibilities of assistive technology and will guide the group in its decision-making.

**IEP Development**

Much has been written about the process of IEP development (Huefner, 2000; Walsh, 2001), participation and roles (Lytle & Bordin, 2001; Menlove, Hudson, & Suter, 2001) and issues associated with legally defensible IEPs (Dragow, Yell, & Robinson, 2001; Julnes & Brown, 1993). The knowledge base contains few works that provide specific guidance about the IEP and assistive technology issues (Julnes & Brown, 1993).

Most current guidelines are based on information directly from federal law:

- Assistive technology devices and/or services essential for a student to receive Free Appropriate Public Education (FAPE) shall be made available. [Source: 20 USC 1412(a)(1)]

- Assistive technology shall support a student’s participation in learning in the Least Restrictive Environment (LRE). [Source: 20 USC 1412(a)(5)]

- Each public agency shall ensure that assistive technology devices or assistive technology services, or both, are made available to a child with a disability if required as part of the child’s (1) special education, (2) related services, or (3) supplementary aids and services. [Source: 34 CFR 300.308]

Essentially, both assistive technology devices and services can be written into an IEP if the IEP team determines that assistive technology is necessary for the student to benefit from FAPE. Assistive technology can be designated as either special education, a related service, or as supplementary aids and services.

**Practical Guides About AT & IEPs**

Recently, a new book has been published which seeks to bridge the policy and practice gap concerning assistive technology and the IEP. Purcell and Grant (2002) have written a book, *Assistive Technology Solutions for IEP Teams: A New Guidebook* that provides assistive technology worksheets for IEP teams to use in support of the assistive technology consideration process (see Figure 1).

Designed for grades K-3, the worksheets focus on key instructional areas (e.g., reading, writing, oral English language, listening and speaking) and outline sample instructional tasks, accessibility issues, possible assistive technology solutions, and sample IEP goals (e.g., Reading, Decoding and Word Recognition, Generate the sounds from all the letters... Grade 1, Using a talking word processing program and programmable keyboard with alphabet overlay, S will produce and “say” words with recognizable letter patterns with __% accuracy __/ __ times). This book fills an important void in the literature and one can only hope that the authors are preparing additional books for a series of K-12 assistive technology and IEP resources.

Two other helpful resources are perhaps less known but are readily accessible in PDF files via the web. The Assistive Technology Planning Tool
for Educators (http://www.ablenetinc.com/images/atplanningtool.pdf) was developed by staff at AbleNet, Inc. and is designed to facilitate planning and collaboration among IEP team members as they seek to integrate assistive technology into the curriculum and document their efforts in the IEP (see Figure 2). A second resource, Assistive Technology Mini-Assessment: Qualities for Success (http://www.ataccess.org/resources/atk12/miniassessment.pdf) was developed by the Alliance for Technology Access and offers a 5-point rubric for assessing seven key factors associated with the systemic evaluation and use of assistive technology.

A number of organizations have created web sites that provide helpful guidelines and suggestions for incorporating assistive technology into the IEP:

### Figure 1


### Figure 2

The Assistive Technology Planning Tool for Educators

A download resource developed by AbleNet to facilitate the integration of assistive technology into the IEP planning process and subsequent classroom instruction. A second page (not shown) provides directions and tips for completing each section of the form.


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• Assistive Technology in K-12
http://www.ataccess.org/resources/atk12/assessment.html
A wealth of information from the Alliance for Technology Access on assistive technology use in schools.

• The Journey to Independence Through Assistive Technology: A Guide for Parents of Children with Disabilities
http://www.mindspring.com/~ncatp/prnt-toct.htm
Developed by the North Carolina Assistive Technology Project, this web site offers information and advocacy strategies for parents to navigate systems.

• Writing Assistive Technology in the IEP
Practical examples of how to include assistive technology in the IEP from the state of Ohio.

• WATI Assistive Technology Consideration Guide
http://www.wati.org/assessmentforms.htm
Tools for assisting IEP teams as they consider each child’s need for assistive technology. Developed by the Wisconsin Assistive Technology Initiative.

• Examples of School AT Accommodations
http://okabletech.okstate.edu/techaccomm.htm
Examples of how generic assistive technologies can be included in the IEP. Developed by the Oklahoma Tech Access Project.

• Assistive Technology for All Individuals with Disabilities
http://www.cde.ca.gov/spbranch/sed/astvtech.htm
A question and answer (Q&A) format from the California state Department of Education introduces key concepts about assistive technology devices and services as they relate to IEPs.

• Fact Sheet 4 – Assistive Technology and the IEP
http://www.katsnet.org/fact4.html
Developed by the Kentucky Assistive Technology Service Network, this fact sheet provides a brief introduction to the issues with an emphasis on state specific guidelines and resources.

Future Directions

Much work remains to be done to achieve what Drasgow, Yell, & Robinson, (2001) refer to as the substantive requirements of IDEA, that is, the intent of the mandates. In the case of assistive technology, this means that students have ready access to appropriate assistive technology devices and services that contribute to enhanced education achievement.

Changes in assistive technology service delivery models are needed to create procedures comparable to IDEA’s requirement for Child Find (e.g., multiple methods to make parents and community aware of the availability of free special education services and how to access such services in the public schools). An assistive technology child find policy should be developed to make students, parents, and teachers aware of the potential of assistive technology and the legal rights concerning access to assistive technology devices and services. As it is, there is little evidence to suggest that all students who need assistive technology have access to appropriate devices and services.

Research is urgently needed to test the validity of Golden’s (1999) expectancy benchmarking approach as a basic tool for evaluating programs to ensure compliance with the federal mandate for assistive technology consideration. In addition,

Test Your Knowledge

How well versed are you about issues involving assistive technology policies and practices? Test your knowledge using the quiz on page 20.

The quiz was created by Diane Golden, Director of the Missouri Assistive Technology Project, and a national authority on assistive technology policy. She uses the quiz in workshops with Directors of Special Education not only as a discussion starter but also as a tool to sensitizze administrators to how assistive technology is similar, but sometimes different, than other specialized educational interventions.

To see how well you did, compare your answers with Dr. Golden’s answer key on page 21. This resource may be reproduced for non-commercial use.
### Assistive Technology Policy and Practice Quiz

**Created by Diane Golden, Missouri Assistive Technology Project**

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
<th>Other (* see p. 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If a school meets IDEA requirements for a student, ADA requirements have been satisfied.</td>
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<td></td>
<td></td>
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<tr>
<td>2. If deciding between a paraprofessional and assistive technology, IDEA requires that “independence” be considered.</td>
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<tr>
<td>3. Assistive technology may be specified in any part of an IEP.</td>
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<tr>
<td>4. IDEA exempts schools from an obligation to provide “personal use” devices such as glasses, hearing aids, and wheelchairs.</td>
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<tr>
<td>5. IEP teams must consider assistive technology for each student in special education.</td>
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<tr>
<td>6. Schools should obtain health benefit funding for assistive technology prior to spending education dollars on devices that are both medically and educationally necessary.</td>
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<tr>
<td>7. Schools must assume maintenance or replacement responsibility for family owned assistive technology that is written into an IEP.</td>
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<tr>
<td>8. If a family asks for duplicate assistive technology devices at home, the school must provide it.</td>
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<tr>
<td>9. Families cannot be held legally liable for assistive technology that is damaged during home use that is specified in an IEP.</td>
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<td></td>
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<tr>
<td>10. Assistive technology devices purchased with education dollars must follow students as they transfer between districts.</td>
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<tr>
<td>11. Private school students have the same rights to assistive technology under IDEA as public school students.</td>
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<tr>
<td>12. A certified Assistive Technology Practitioner (ATP) is needed to determine what assistive technology will meet a student’s needs for an appropriate education.</td>
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<tr>
<td>13. Any student who is suspected of needing assistive technology should be referred for a formal assistive technology evaluation.</td>
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<tr>
<td>14. Try-out of assistive technology, in the school environment, is the best assessment of how a device will work for a student.</td>
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<td></td>
<td></td>
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<tr>
<td>15. Assistive technology can benefit students without disabilities.</td>
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additional research is needed to provide baseline data about the numbers of students using assistive technology and the kinds of assistive technology they use.

The paradox of assistive technology consideration: “How can I consider technology if I don’t know what is available?” is currently paralyzing many school-based teams. New tools are needed to guide I.E.P. teams through the assistive technology consideration process and enhance decision-making. One promising strategy is the creation of decision frameworks that uses a flowchart model to prompt users concerning key questions and decisions and then guides them to possible interventions (Anson, 1992).

Finally, significant resources must be devoted to staff development, in order to capture the potential advanced by policy, in daily practice.

References