

Planning for Successful Implementation of Assistive Technologies

by Glenna Gustafson

“...for all individuals, technology can provide important tools for making the performance of tasks quicker and easier, but for some individuals with disabilities, assistive technology is a necessity that enables them to engage in or perform many tasks.” (OSERS, 1989)

Today over 95% of students with disabilities are working in general education classrooms and the majority of these students utilize assistive technologies to be more successful and independent. This fact, along with the 1997 reauthorization of the Individuals with Disabilities Education Act, has left many school systems struggling with how to best provide assistive technology devices and services to students with disabilities. IDEA '97 requires that assistive technology devices and services be considered for all students with disabilities and that these considerations are noted in the student's Individual Education Plan (IEP).

The assumption being made is that IEP teams and school divisions are composed of personnel who have been trained in the selection and use of assistive technologies. Unfortunately, the majority of educational professionals, both special and general education, have had no or limited training in the selection and use of assistive technology. So how does a school division develop a plan to make the selection and delivery of assistive technology services successful for all students?

In 1998 members of the National Assistive Technology Research Institute created a group of professionals known as the QIAT Consortium (Quality Indicators for Assistive Technologies; pronounced, “quiet”). This group consisted of assistive technology (AT) practitioners representing local schools, state and regional education agencies, vendors,

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researchers, consumers, and families from across the United States (Lahm, et al., 2001). Since that time the QIAT Consortium has worked to compile specific guidelines to assist educators in making effective AT decisions and meeting mandates as set forth by IDEA '97. Educators, service providers, and consumers can utilize *The Quality Indicators for Assistive Technology Services*, in the selection, delivery, support, and evaluation of assistive technology tools and services. Additionally the indicators support the alignment with local, state and federal mandates (QIAT Consortium, 2002).

QIAT guidelines are based on the following assumptions:

- It is essential that all AT services developed and delivered are legally correct and are aligned to district policies.
- Families, caregivers, school personnel, and other necessary individuals and service agencies should be involved in the AT process.
- Multidisciplinary team members involved in AT processes should abide by the code of ethics for their specific profession.

Based on these three assumptions, quality indicators were developed for eight areas. These areas include quality indicators for administrators; assessment of assistive technology needs; documentation within the IEP; implementation of assistive technology selections; evaluation of the effectiveness of the AT selection; AT and transition; and professional development and training in AT (2002).

Definitions of AT devices and AT services

Before the need for AT can be determined and selections of AT devices made, it is essential to understand the legal definition of assistive technology. The term “assistive technology” is a legal term and as defined by IDEA includes assistive technology devices and services. *An assistive technology device* refers to “any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is to increase, maintain, or improve the functional capabilities of students (or individuals) with disabilities” (IDEA: 20 U.S.C. Part A, Section 602, 1997) Assistive technology devices cover a spectrum from no tech to high tech; from highlighters to portable word processors to voice activated computing systems.

An assistive technology service as defined by IDEA refers to

any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. Such term includes —the evaluation of the needs of such child, including a functional evaluation of the child in the child’s customary environment; purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by such child; selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing of

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assistive technology devices; coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs; training or technical assistance for such child, or, where appropriate, the family of such child; and training or technical assistance for professionals (including individuals providing education and rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of such child. (1997)

The QIAT takes into consideration these definitions as mandated in IDEA '97.

Quality Indicators for Administrative Support

The importance of administrative support is essential in the implementation and use of AT devices and services. The indicators in this area define the critical areas of administrative support and leadership for developing and delivering assistive technology services. Administrative support indicators focus on the development of policies, procedures, and other supports necessary to sustain effective assistive technology programs. Administrators and staff should work together in the creation of a clear, systematic procedural plan developed to delineate the procedures for assessing, selecting, and evaluating the AT needs of students. These plans should be coordinated with other local, state, and federal procedural guidelines. All personnel should be familiar with these procedures and have the necessary skills and knowledge to work with a variety of AT tools. Continuous learning opportunities, training, and technical assistance focusing on AT issues should be provided for educational professionals, the family, and the student and be addressed within this plan. The importance of budgeting both time and monies for AT needs is another essential indicator of administrative support.

Quality Indicators for Assessment of Assistive Technology Needs

The "Assessment of Assistive Technology Needs" indicators delineate a process conducted by a team, used to identify tools and strategies to address a student's specific need(s). The assistive technology decision and selection making process should be a student-centered, team process. It is essential to have input from multiple individuals that work with the student including parents, teachers, therapist, and assistants. Each of these team members brings with them a different knowledge basis, skills, and ideas. Perhaps one of the most overlooked areas in the AT decision making process is the failure to consider the student's input regarding a potential technology solution. The omission of student input can be an instant formula for disaster (Richardson, 2001). All AT decisions made by the IEP team should provide the student with greater access to the goals and objectives found on the IEP and be well

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documented within the IEP. AT occurs along a continuum from 'no tech' to 'high tech.' The AT device/service that is the least complex and results in the greatest success for the students should be the first consideration.

Quality Indicators for Documentation in the IEP

Assistive technologies should focus on the use and need of a tool(s) to assist an individual with educational, recreational, and daily functional activities. These activities can include reading, writing, mathematics, positioning, hearing, self care or organization. In order to accomplish these tasks an individual may require a variety of tools to be used in a variety of situations. No one assistive technology device may be applicable for all situations nor will the same device be useful for individuals with the same disability. The "Documentation in the IEP" indicators assist the IEP team in describing the role of assistive technology within the student's educational setting and program. The need for a variety of assistive technology devices and services should be included throughout a student's IEP if deemed necessary for the student to receive a free, appropriate public education in the least restrictive environment. The AT can be designated as either special education, a related service, or as supplementary aids and services.

Quality Indicators for Assistive Technology Implementation

"Assistive Technology Implementation" indicators pertain to the ways that AT devices and services, as included in the IEP (including goals/objectives, related services, supplementary aids and services and accommodations or modifications) are delivered and integrated into the student's educational program. AT should be integrated throughout a student's daily schedule; all team members share responsibility for this. Many students will often need extended practice time on using their AT before becoming efficient. Ongoing training and preparation of the student, educational and support professionals, and parents is essential. Individuals working with the student should be able to model the use of the technology for the student as well as perform basic troubleshooting tasks for the device.

Quality Indicators for Evaluation of Effectiveness

Assessment and intervention form a continuous and dynamic process. The indicators for "Evaluation of Effectiveness" are designed to assist educators in the evaluation of the effectiveness of the AT devices and services being provided. An evaluation should include data collection and documentation to monitor changes in student performance resulting from the implementation. As students grow and change so will the tools that they need to experience independence and success. This means that the AT tools that the student is using will need to be changed as their needs

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change—requiring that data collection be ongoing and consistent. IEP goals and objectives should be utilized in evaluating the effectiveness of AT tools.

Quality Indicators for Assistive Technology Transition

To be truly successful, students need to be able to utilize their AT across a variety of settings in order to avoid the loss of independence or function. A transition plan should be developed that provides for support for the student using AT in a variety of environments. This plan should be based on the complexity of the student's needs; address possible additional technical assistance and training needs of support personnel and the student; and consider possible funding needs that might arise from providing AT in various settings. Again, a team approach is needed with responsibilities outlined for all members. While IDEA mandates that transition planning must begin for students with disabilities at age 14, for students utilizing complex AT tools, transition planning may need to begin earlier.

Quality Indicators for Professional Development and Training in Assistive Technology

In order for students with disabilities to receive a free appropriate public education and meet IEP goals and objectives all educators need to be prepared to provide these students with the appropriate tools. The use of AT tools enables many students with disabilities these opportunities. The "Professional Development and Training" indicators view the goal of AT training and development as "increasing educator's knowledge and skills in a variety of areas including, but not limited to: collaborative processes; a continuum of tools, strategies, and services; resources; legal issues; action planning; and data collection and analysis" (QIAT Consortium, 2003, p. 17). Based on these indicators this ongoing training should be provided to educators, service providers, support staff, parents, students, and technology specialists.

Conclusion

To assist school systems and others in guaranteeing consistency and quality in the development of guidelines to provide students with disabilities the required AT devices and services, the QIAT Consortium created the *QIAT Self-Evaluation Matrices* (QIAT Consortium, 2001). These matrices are designed to assist school systems and other users of QIAT indicators in the promotion of sustained change based on an evaluation of their perceived existing strengths and weaknesses using the *QIAT Indicators*. Users can then build upon their strengths and develop plans to address their identified areas needing improvement.

While QIAT is not the only tool that is available for use by school systems, it is a tool that can be used to improve the development and delivery of assistive technology services in a way that assures quality of services while increasing consistency of

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services. QIAT is not a list of competencies for service providers. Instead, by using quality indicators educators are provide an “external, objective measurement to use in assessing their own performance” (Zabala, et. al, 2000). By utilizing *QIAT Indicators* in Assistive Technology planning, school systems are utilizing best practices in the provision of federally mandated AT services for students with disabilities.

Article Resource Links

QIAT - <http://sweb.uky.edu/~jszaba0/QIAT.html>

Quality Indicators of Assistive Technology Services
<http://www.wati.org/qualityindicators.htm>

QIAT Conversations - <http://www.connsensebulletin.com/qiat1.html>

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