2013 Assistive Technology **Resource Guide**

OCALI

Assistive Technology Resource Guide

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This resource guide on the assistive technology (AT) decision-making process was created to assist Ohio school districts in understanding their obligation to provide needed AT devices and services to students with disabilities. General information is included on the legal implications and the school district's responsibility to consider the AT needs of all students who are receiving special education services. The local school district must provide for the specific needs of students with disabilities through a team process, including assessment and implementation. Local educators and related service providers must make sound judgments on AT solutions that will be a part of the student's individualized educational program (IEP). It is OCALI's hope that this resource guide will support schools in making sound judgments in these areas.

This guide was developed in collaboration with the Ohio Assistive Technology Network with funding from the Ohio Department of Education's Office for Exceptional Children.

Section 1

Introduction to Assistive Technology

2013

What Is Assistive Technology?

Any adaptive device or service that increases participation, achievement, or independence for a student with a disability may be considered assistive technology (AT). Adaptations may be as simple as a pencil grip or as complex as an adapted computer system.

For a school district, consideration of AT is required during the development of every individualized education program (IEP). This task is the responsibility of the IEP team that determines the special education services necessary to ensure that each student with disabilities receives a free and appropriate public education. If the team determines that the student needs AT, the school district must provide the necessary devices and services. Given this requirement, it is imperative that administrators, teachers, and related service personnel develop skills and knowledge related to AT.

The legal definition of assistive technology was originally issued in the Technology Related Assistance Act of 1988 (Tech Act), amended as the Assistive Technology Act of 1998. It continues to be the accepted definition, and as such is used in all related legislation, including the Individuals With Disabilities Education Act (IDEA, 2004), which mandates the special education and related services that school districts must provide for students' unique needs.

Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device.

(IDEA, 2004, Part A, Definitions, 300.5; Operating Standards for Ohio Educational Agencies Serving Children With Disabilities, 2008, 3301-51-01 (B)(2).)

What Are Assistive Technology Services?

The definition of assistive technology includes both the devices and the services that are necessary to maximize a student's participation and progress in the educational program.

Assistive technology service means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device.

(IDEA, 2004, Part A, Definitions, 300.6; Operating Standards for Ohio Educational Agencies Serving Children With Disabilities, 2008, 3301-51-01 (B)(3).)

The school district is responsible for:

- **Evaluating the needs:**
  - Evaluating the needs of a child with a disability, including a functional evaluation in the student's customary environment
- **Obtaining/acquiring the device:**
  - Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices for students with disabilities
- **Providing necessary modification and customization:**
  - Selecting, designing, fitting, customizing, adapting, and applying use of assistive technology equipment
- **Training the student to use the device:**
  - Training or technical assistance for a student with a disability or, if appropriate, that student's family
- **Training for professionals:**
  - Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of that student
- **Coordinating therapies, interventions, or services with assistive technology:**
  - Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs
- **Maintenance, repair, and replacement as needed:**
  - Maintaining, repairing, or replacing assistive technology

Levels of Assistive Technology

The focus of this manual is to address the types of AT that are relevant to the educational needs of a student. However, it is important also to understand the scope of AT as it applies to all aspects of a student's life. Assistive technology impacts many areas of a student's life, and consideration of these adaptations must be influenced by his/her specific needs.

Assistive technology solutions may be described by "level," which is generally a correlation between:

The technological difficulty of the device	**AND**	**The level of technical training the student needs to implement the device**

In some instances, all levels of AT are needed. However, the continuum of options – from high to low – must be considered, and the selection of equipment should be a match between the student's abilities and the purpose of the AT in enabling the student to participate in the educational setting.

Low technology refers to devices that are easy to use and generally do not require electrical power. The training period for use of such devices is relatively short. Many times these are simply referred to as accommodations or modifications, and educators may not realize that they have already considered and implemented this type of AT. For example, creative teachers often utilize "common sense" accommodations that allow students to accomplish given tasks within the classroom. Often low-tech systems are the foundation for other levels of assistive technology, developing skills that can be transferred into more significant phases of independence or participation.

Higher-level technology systems incorporate a wide range of levels for all aspects of life skills. Manufacturers specialize in equipment to accommodate specific disability conditions and the performance tasks to be accomplished. Such systems may involve complex construction or internal structures and may require specific training in order for the user to take full advantage of their capabilities. However, most are "user friendly," which means that the user does not have to understand how the device works in order to use it successfully.

For an insightful discussion of levels of assistive technology and other key issues, see the article "Hindsight, Understanding What We Got Wrong, and Changing Directions" (Edyburn, 2009).

Overview of Assistive Technology

It is helpful to classify AT according to the task it enables the student to perform. The list below is only an example of AT systems that may be considered. As such, it is not inclusive of all AT options that are available.

Seating and Positioning
Allow students greater access to the educational activities.

- non-slip surface on chair (e.g., Dycem)
- blocks for feet
- bolster or rolled towel for positioning
- adapted or alternate chair
- side-lying frames
- standing frame
- floor sitter
- chair insert
- wheelchairs
- custom-fitted wheelchair
- straps
- head supports
- trays
- adapted desk/table
- bean bag chairs

Activities of Daily Living (ADLs)
Allow independence in the area of daily living.

- adapted eating utensils
- adapted drinking devices
- adaptive dressing devices
- specially designed toilet seats
- restroom modifications
- aids for grooming
- robotic and electronic feeders
- adapted cooking tools
- universal cuff to hold items

Environmental Control
Enables students to independently use equipment in the classroom and home.

- switch interfaces for appliances (e.g., VCRs, tape recorders)
- adaptable on/off switches
- remote-control switch access
- switch latch timers
- switch interface for battery-operated devices

Mobility
For students with physical disabilities, these items may be considered to enable students to get around the classroom and school environment.

- walkers
- grab rails
- manual or powered wheelchairs
- powered recreational vehicles
- building modifications and adaptations

For students with vision impairments, these items may be necessary to navigate the school.

- white canes
- electronic image sensors
- telescopic aids

Assistive Listening
Assists students in gaining auditory-presented educational information.

- hearing aids
- classroom amplification
- personal FM system
- captioning
- signaling device
- TDD/TTY (Telecommunications Device for the Deaf/TeleTYpewriter)
- screen flash on computer
- phone amplification

Visual Aids
Enable students with visual impairment to gain information from educational activities.

- increased contrast
- enlarged images
- tactile and auditory materials
- books on tape
- eye glasses
- magnifier
- large print books
- low-vision aids
- screen magnifier
- screen magnification software
- closed-circuit TV (CCTV)
- screen reader
- Braille keyboard or notetaker
- Braille translator software
- Braille printer/embosser
- Brailled materials
- scanners
- optical character readers
- reading machine

Augmentative Communication
Assists students in effectively communicating when spoken communication is not effective.

- communication boards and wallets with pictures, words, or letters
- eye gaze board

- simple voice-output device
- electronic communication devices
- speech synthesizers for typing
- communication-enhancement software
- computer-based communication systems

Physical Education, Leisure, and Play
Enhance students' social interaction and participation in recreational activities.

- adapted toys and games
- adapted puzzles
- switch activations with battery interrupter
- adapted sporting equipment
- universal cuff to hold crayons, markers
- modified stampers and scissors
- beeping balls
- arm support for drawing
- drawing software
- adaptive computer games

Reading
Adaptations that make reading materials accessible.

- change in text size and color, spacing, background color
- use of pictures with text
- adapted page turning
- book stands
- talking electronic dictionary
- scanner with talking word processor
- electronic textbooks
- highlighted text
- recorded material
- multimedia presentation formats
- books on tape, CD, or MP3
- optical character reader
- Braille books
- CCTV
- screen reader/text reader

Writing
Adapted modes to produce text material.

- pencil with adaptive grip
- adapted paper (e.g., raised lines, highlighting)
- slant board
- typewriter
- portable word processor
- talking word processing
- computer with word processing
- word processing with spell/grammar checking
- word prediction
- electronic dictionary/ thesaurus/spell checker
- word cards/ word book/ word wall
- voice-recognition software
- Braille keyboard or note taker
- Braille printer

Computer Access
Means for students to access the computer. This may include input and output.

- keyboard with built-in accessibility options on standard computer
- key guard
- arm support
- track ball/track pad
- joystick with onscreen keyboard
- alternate keyboard
- mouth stick/head pointer
- head mouse/head master, tracker
- touch screen
- voice-recognition software
- switch with Morse code
- switch with scanning
- screen reader
- word prediction/abbreviated expansion

Guiding Principles

The mandates of No Child Left Behind (No Child Left Behind [NCLB], 2001) as well as the Individuals With Disabilities Education Act (IDEA, 2004) emphasize high expectations for all students and access to the general curriculum to the maximum extent possible. To meet these demands, teachers are expected to facilitate student achievement through high-quality instructional activities. Students typically engage in these activities through participation, communication, and productivity. For students with disabilities, certain aspects of their disability may prohibit them from reaching the desired level of achievement.

Assistive technology offers many students with disabilities the ability to meet their full potential within their educational program. The consideration and provision of AT for students with disabilities is mandated in the law. A great deal of attention has focused on properly interpreting these laws to ensure that school districts understand their responsibility. However, many questions remain.

Which students need AT? What kind of technology is needed? What process must be completed to make AT decisions? How will the AT be used in the classroom? Why should AT be included?

There are no quick-and-easy answers to these questions. However, when a district has a well-defined plan for AT, it is fairly certain that service delivery will be legally correct and will ultimately help students with disabilities realize their educational potential.

The following overarching guidelines, written by Joy Zabala (n.d.), should be embraced by all educators as they consider the AT needs of individual students with disabilities.

- The primary goal of assistive technology is the enhancement of capabilities and the removal of barriers to performance.
- Assistive technology can be a barrier.
- Assistive technology may be applicable to all disability groups and in all phases of education and rehabilitation.
- Assistive technology is related to function, not disability.
- The least complex intervention needed to remove barriers to performance should be the first consideration.
- Assessment and intervention involve a continuous, dynamic process of systematic problem solving.
- Regularly scheduled followup and adjustments are expected.
- Assistive technology does not eliminate the need for social and academic skills instruction.
- A team approach is required.

Quality Indicators for Assistive Technology (QIAT)

The Quality Indicators for Assistive Technology (QIAT) Consortium (2012) has defined a set of descriptors that serve as a guide for quality AT services. The basics of these indicators are included here to assist districts as they integrate AT service delivery into current district policies and procedures and/or continuous improvement plans. More detailed descriptors may be found at the QIAT webpage: www.qiat.org. Additionally, QIAT matrices may be used to guide a collaborative self-assessment conducted by a school district team and used to plan for changes that lead to improvement in attainable steps.

Quality Indicators for Administrative Support of Assistive Technology Services

This area defines the critical areas of administrative support and leadership for developing and delivering assistive technology services. It involves the development of policies, procedures, and other supports necessary to improve quality of services and sustain effective assistive technology programs.

1. The education agency has written procedural guidelines that ensure equitable access to assistive technology devices and services for students with disabilities, if required for a free, appropriate, public education (FAPE).

Intent: Clearly written procedural guidelines help ensure that students with disabilities have the assistive technology devices and services they require for educational participation and benefit. Access to assistive technology is ensured regardless of severity of disability, educational placement, geographic location, or economic status.

2. The education agency broadly disseminates clearly defined procedures for accessing and providing assistive technology services and supports the implementation of those guidelines.

Intent: Procedures are readily available in multiple formats to families and school personnel in special and general education. All are aware of how to locate the procedures and are expected to follow procedures whenever appropriate.

3. The education agency includes appropriate assistive technology responsibilities in written descriptions of job requirements for each position in which activities impact assistive technology services.

Intent: Appropriate responsibilities and the knowledge, skills, and actions required to fulfill them are specified for positions from the classroom through the central office. These descriptions will vary depending upon the position and may be reflected in a position description, assignment of duty statement, or some other written description.

4. The education agency employs personnel with the competencies needed to support quality assistive technology services within their primary areas of responsibility at all levels of the organization.

Intent: Although different knowledge, skills, and levels of understanding are required for various jobs, all understand and are able to fulfill their parts in developing and maintaining a collaborative system of effective assistive technology services to students.

5. The education agency includes assistive technology in the technology planning and budgeting process.

Intent: A comprehensive, collaboratively developed technology plan provides for the technology needs of all students in general education and special education.

6. The education agency provides access to on-going learning opportunities about assistive technology for staff, family, and students.

Intent: Learning opportunities are based on the needs of the student, the family, and the staff and are readily

available to all. Training and technical assistance include any topic pertinent to the selection, acquisition, or use of assistive technology or any other aspect of assistive technology service delivery.

7. The education agency uses a systematic process to evaluate all components of the agency-wide assistive technology program.

Intent: The components of the evaluation process include, but are not limited to, planning, budgeting, decision-making, delivering AT services to students, and evaluating the impact of AT services on student achievement. There are clear, systematic evaluation procedures that all administrators know about and use on a regular basis at central office and building levels.

COMMON ERRORS

1. If policies and guidelines are developed, they are not known widely enough to assure equitable application by all IEP teams.

2. It is not clearly understood that the primary purpose of AT in school settings is to support the implementation of the IEP for the provision of a free, appropriate, public education (FAPE).

3. Personnel have been appointed to head AT efforts, but resources to support those efforts have not been allocated. (Time, a budget for devices, professional development, etc.)

4. AT leadership personnel try to or are expected to do all of the AT work and fail to meet expectations.

5. AT services are established but their effectiveness is never evaluated.

(THE QIAT Consortium, 2012, pp. 13-14)

Quality Indicators for Professional Development and Training in Assistive Technology

This area defines the critical elements of quality professional development and training in assistive technology. Assistive technology professional development and training efforts should arise out of an ongoing, well-defined, sequential and comprehensive plan. Such a plan can develop and maintain the abilities of individuals at all levels of the organization to participate in the creation and provision of quality AT services. The goal of assistive technology professional development and training is to increase educators' knowledge and skills in a variety of areas including, but not limited to: collaborative processes; a continuum of tools, strategies, and services; resource; legal issues; action planning; and data collection and analysis. Audiences for professional development and training include: students, parents or caregivers, special education teachers, educational assistants, support personnel, general education personnel, administrators, AT specialists, and others involved with students.

1. Comprehensive assistive technology professional development and training support the understanding that assistive technology devices and services enable students to accomplish IEP goals and objectives and make progress in the general curriculum.

Intent: The Individuals with Disabilities Education Act (IDEA) requires the provision of a free and appropriate public education (FAPE) for all children with disabilities. The Individualized Education Program (IEP) defines FAPE for each student. The use of AT enables students to participate in and benefit from FAPE. The focus of all AT Professional Development and training activities is to increase the student's ability to make progress in the general curriculum and accomplish IEP goals and objectives.

2. The education agency has an AT professional development and training plan that identifies the audiences, the purposes, the activities, the expected results, evaluation measures and funding for assistive technology professional development and training.

Intent: The opportunity to learn the appropriate techniques and strategies is provided for each person involved in the delivery of assistive technology services. Professional development and training are offered at a variety of levels of expertise and are pertinent to individual roles.

3. The content of comprehensive AT professional development and training addresses all aspects of the selection, acquisition and use of assistive technology.

Intent: AT professional development and training address the development of a wide range of assessment, collaboration and implementation skills that enable educators to provide effective AT interventions for students. The AT professional development and training plan includes, but is not limited to: collaborative processes; the continuum of tools, strategies and services; resources; legal issues; action planning; and data collection.

4. AT professional development and training address and are aligned with other local, state and national professional development initiatives.

Intent: For many students with disabilities, assistive technology is required for active participation in local, state and national educational initiatives. Content of the professional development and training includes information about how the use of assistive technology supports the participation of students with disabilities in these initiatives.

5. Assistive technology professional development and training include ongoing learning opportunities that utilize local, regional, and/or national resources.

Intent: Professional development and training opportunities enable individuals to meet present needs and increase their knowledge of AT for use in future. Training in AT occurs frequently enough to address new and emerging technologies and practices and is available on a repetitive and continuous schedule. A variety of AT professional development and training resources are used.

6. Professional development and training in assistive technology follow research-based models for adult learning that include multiple formats and are delivered at multiple skill levels.

Intent: The design of professional development and training for AT recognizes adults as diverse learners who bring various levels of prior knowledge and experience to the training and can benefit from differentiated instruction using a variety of formats and diverse timeframes (e.g., workshops, distance learning, follow-up assistance, ongoing technical support).

7. The effectiveness of assistive technology professional development and training is evaluated by measuring changes in practice that result in improved student performance.

Intent: Evidence is collected regarding the results of AT professional development and training.

The professional development and training plan is modified based on these data in order to ensure changes educational practice that result in improved student performance.

COMMON ERRORS

1. The educational agency does not have a comprehensive plan for ongoing AT professional development and training.

2. The educational agency's plan for professional development and training is not based on AT needs assessment and goals.

3. Outcomes for professional development are not clearly defined and effectiveness is not measured in terms of practice and student performance.

4. A continuum of ongoing professional development and training is not available.

5. Professional development and training focuses on the tools and not the process related to determining student needs and integrating technology into the curriculum.

6. Professional development and training is provided for special educators but not for administrators, general educators and instructional technology staff.

(The QIAT Consortium, 2012, pp. 15-16)

Summary

This section provided an overview of the wide range of AT devices that are commonly used within the school setting for curriculum access and other school-related activities. Assistive technology services were also discussed, as well as the importance of those services in promoting effective student AT use. Finally, the QIAT Indicators were introduced. These indicators were created to help guide school districts and AT teams in developing and implementing effective AT services.

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Section 2

Federal Legislation and Assistive Technology

2013

Over time, federal legislation has been enacted to enable increased access to, and provision of, technology supports for individuals with disabilities. Assistive technology was formally defined in 1987 and written into the Technology-Related Assistance for Individuals With Disabilities Act (Tech Act, 1988). This section includes a review of legislation related to AT.

- **Americans With Disabilities Act, 1990**
- **Assistive Technology Act, 1998; amended 2004**
- **Rehabilitation Act, 1973; amended 1992, 1998**
- **Individuals With Disabilities Education Act (IDEA), 2004**

School districts must be knowledgeable about the laws that regulate and form special education services, as well as the legal implications related to applications of AT. The most recent definition of AT and AT services may be found in the 2004 reauthorization of IDEA.

Americans With Disabilities Act (ADA)

ADA, which was signed into law in July 1990, provides civil rights protection against discrimination for individuals with disabilities similar to the protection provided on the basis of race, gender, age, nationality, and religion. It mandates accessibility and accommodation requirements in public facilities, employment, state and local government services, transportation, and communication.

All new construction and modifications must be accessible to individuals with disabilities. For existing facilities, barriers to services must be removed if readily achievable. Public accommodations, including facilities such as restaurants, hotels, grocery stores, retail stores, etc., as well as privately owned transportation systems, must comply with ADA requirements.

ADA protects individuals with disabilities from employment discrimination based on the disability alone when the person is qualified to perform the essential functions of the job, with or without reasonable accommodations. Accommodations may include the use of assistive technology and technology access, unless the changes create an undue hardship for the employer.

Assistive Technology Act (Tech Act)

The Technology-Related Assistance for Individuals With Disabilities Act of 1988 (reauthorized in 1994) was passed by Congress to increase access to, availability of, and funding for AT through state efforts and national initiatives. It forms the basis for the Assistive Technology Act, signed into law in 1998 (amended 2004). This law affirms that technology is a valuable tool that can be used to improve the lives of Americans with disabilities.

The Tech Act continues to support states in sustaining and strengthening their capacity to address the AT needs of individuals with disabilities. As such, the act provides federal funds to assist states in developing consumer-responsive systems of access to AT, services, and information.

In Ohio, the Tech Act project is:

Assistive Technology of Ohio
1314 Kinnear Road, #1704
Columbus, OH 43212
Phone: 614-292-7721
E-mail: mailto:atohio@osu.edu
Web: www.atohio.org

Rehabilitation Act

The Rehabilitation Act was originally signed into law in 1973. The 1992 amendments are built on the presumption that an individual is able to achieve employment and other rehabilitative goals regardless of the severity of the disability. Vocational rehabilitation agencies are required to focus on solutions and attainment of employment outcomes, unless the agency can "unequivocally demonstrate" that no possibility of employment exits for a particular individual. Options for training, AT, reasonable accommodations, and supports must be carefully considered. Students who do not qualify for special education may still be eligible for accommodations under Title V of the Rehabilitation Act, commonly referred to as Section 504. This section provides that ...

"No otherwise qualified handicapped individual shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

In 1998, Congress amended the Rehabilitation Act to require that all federal agencies remove barriers to make electronic and information technology accessible to people with disabilities. Section 508 establishes requirements for electronic and information technology developed, maintained, procured, or used by the federal government. Specifically, it requires federal electronic and information technology to be accessible to people with disabilities, including employees and members of the public. This web accessibility mandate has had significant impact on the general design of websites in terms of navigability and other user-friendly elements.

Individuals With Disabilities Education Act (IDEA)

IDEA is the safeguard ensuring that every student with a disability receives a free, appropriate public education (FAPE). Historically known as the Education for All Handicapped Children Act of 1975 (Public Law 94-142), IDEA's basic provisions have remained the same since its inception. IDEA requires school districts to provide special education and related services based on the IEP designed to meet the student's unique needs. IEP goals are identified and implemented to facilitate student access to and progress in the general education curriculum.

Assistive technology was not originally included in IDEA but was later written into the law and placed in the section entitled "Related Services." In a 1990 policy letter, the Office of Special Education in the U.S. Department of Education referred to the Tech Act definition of AT in clarifying students' right to AT in the IEP. This laid the groundwork for the inclusion of specific language for AT devices and services in the 1990 Amendments to IDEA. Finally, it was granted its own section, Section 300.5 and 300.6, where it is defined. The 1997 Amendments to IDEA specifically require that AT be considered for every student with a disability as part of the IEP process. Assistive technology may be considered either as special education and related

services or as supplementary aids and services.

In Ohio, the mandates of IDEA are presented in the Operating Standards for Ohio Educational Agencies Serving Children with Disabilities (2008). The purpose of these operating standards is to ensure that FAPE is available all children with disabilities residing in Ohio between the ages of 3 and 21 years, as provided by Part B of IDEA, as amended by the Individuals With Disabilities Education Improvement Act of 2004. These Ohio rules will be referenced in the legal areas of this document.

IDEA Definition of Assistive Technology

While IDEA continues to define an AT device in the Tech Act terminology, an exception was added in IDEA 2004. The definition now states:

> **Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. *The term does not include a medical device that is surgically implanted, or the replacement of that device.***
>
> (IDEA, 2004, 300.5; Ohio Department of Education, 2008, 3301-51- 01 (B)(2).)

The exclusion of medical devices that are surgically implanted, referred to above, is usually thought to apply to cochlear implants. A similar exclusion exits in the definition of related services indicating that school districts are not responsible for "selecting designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing" surgically implanted medical devices. In 2006 the US Department of Education's regulations interpretations of IDEA 2004 amended the regulatory definition of related services to exclude "a medical device that is surgically implanted, the optimization of the devices functioning (e.g. mapping), maintenance of the device [and] the replacement of the device". In 2012, the U.S. Circuit Court of Appeals upheld the regulatory definition provided by the U.S. Department of Education in Petit v U.S. Department of Education. While the regulations provided for these exclusions there remain some obligation by IEP teams for related services. These related services include routine checking of acoustical hearing aids and the external components of cochlear implants.

There is no federal "approved list" of AT devices and services covered by IDEA. Assistive technology can be quite simple and inexpensive, or it can include more sophisticated devices.

Determination regarding the provision of AT for a student with a disability must be made on an individual basis. As such, it is important to recognize that the definition of AT includes both devices and services. These defined services ensure that appropriate processes are in place for evaluation, acquisition, and implementation of AT that will foster student achievement within the educational program.

This federal definition of AT devices and services is identical to the definition provided in the Operating Standards for Ohio Educational Agencies Serving Children With Disabilities (2008).

IDEA and Consideration of Assistive Technology

The requirement that every student with a disability must be "considered" for AT during the development of

his/her IEP remains in IDEA 2004.

In developing the child's IEP, the IEP team must consider whether the child needs assistive technology devices and services.

(IDEA, 2004, 300.324 (a)(2)(v); Ohio Department of Education, 2008, 3301-51-07 (L)(b)(v).)

The IEP team must evaluate the specific needs of each student and develop criteria to establish whether specific AT devices/services are necessary to meet the unique needs of a student. This consideration must be conducted during the student's IEP meeting at least annually.

Neither IDEA nor the Operating Standards for Ohio Educational Agencies Serving Children with Disabilities (Ohio Department of Education, 2008) provide specific guidance on how to conduct this consideration. The Ohio Center for Autism and Low Incidence's (OCALI) OCALI Consideration for Assistive Technology Checklist is included in Section 5 of this manual. The checklist may guide an IEP team when conducting a consideration of a student's need for AT during the IEP process. Questions to be asked include:

- What specific task do we want this student to perform that he/she is unable to do because of his/her disability?
- What current special strategies, accommodations, or assistive technologies have been tried to enable the student to complete this task? How well have they worked? (Include in the Present Levels of Performance section of IEP.)
- Are there continuing barriers when the student attempts this task? If so, describe. (Include in the Present Levels of Performance section of IEP.)
- Are there new or additional assistive technologies to be tried to address continuing barriers? If so, describe. (Document in Services section of IEP.)
- Is there a need for further investigation and/or assessment to determine assistive technology solutions? (Describe this plan and document in Services section of IEP.)

It may be necessary for an IEP team to seek additional assessment before necessary AT can be documented in the IEP.

IDEA Implications for Assistive Technology

The implications for AT as part of special education services are inherent within the basic premises of IDEA.

All students with disabilities are entitled to a free and appropriate public education (FAPE) appropriate to their needs.

(IDEA, 2004, 300.17; Ohio Department of Education, 2008, 3301-51-09(A).)

All children are entitled to a FAPE "regardless of the severity of their disabilities. *(Timothy W. v. Rochester N.H. School Dist.,* 1989). It is the responsibility of the IEP team to determine what constitutes "appropriate." This must be done on a case-by-case basis for each student and included in the IEP.

In *Board of Education of Hendrick Hudson Central School District v. Rowley* (1982), the court stated that IDEA guarantees a "basic floor of opportunity," offering the same opportunities other students have through specialized instruction and related services that are individually designed to provide educational benefit to the student. The court did not rule that maximization of opportunities for student with disabilities was required. However, the program must be based on the student's unique needs and be designed to enable the student to benefit from an education. In other words, the student must be making progress. Therefore, more than a minimal benefit is required for the program to be appropriate.

In determining what is appropriate, the school district must be able to answer the following two questions:

- Did the district comply with the IDEA's procedures?
- Was the IEP reasonably calculated to enable the child to benefit educationally?

With regard to AT, the relationship between the student's educational needs and the AT device or service must be considered. The basic standard to be met, whether or not the student needs the AT, is receiving FAPE (*Pachl v. School Board of Independent School District No. 11*, 2002)

"Free" as related to AT means that the devices and services, if deemed appropriate, must be provided at no cost to parents. This is defined in the list of AT services, including purchase or acquisition, maintenance, and repair. The school is also required to assume the costs for assessment, therapies, and related services needed to implement the use of necessary AT.

IDEA specifies that school districts may use Medicaid or parents' private insurance for special education, including AT. However, "each time the public agency proposes to access the parents' private insurance proceeds the agency must obtain parental consent….and inform the parent that their refusal to permit the public agency to access their private insurance does not relieve the public agency of its responsibility to ensure that all required services are provided at no cost to the parents." (IDEA 2004) Meaning that the parents must give permission for the use of their private funds. Furthermore, the district cannot deny services if the parents refuse to authorize use of Medicaid or private insurance. Such use also cannot result in any cost to the parents (e.g., co-payment, deductible). However, Medicaid and private insurance are viable options for obtaining augmentative and alternative communication (AAC) devices since these may be considered "medically necessary." Medicaid or private insurance does not cover "educationally necessary" items.

According to the U.S. Department of Education, if an IEP team determines that an AT device is needed for home use in order to for a student to receive FAPE, the assistive technology must be provided, again at no cost to the parents. An example would be a student needing a given device at home to complete homework assignments.

To the maximum extent possible, students with disabilities should be educated with students without disabilities, as close to home as possible, and in the least restrictive environment (LRE).

(IDEA, 2004, 300.114; Ohio Department of Education, 2008, 3301-51-09 (A).)

IDEA also requires that students receive their educational services in the least restrictive environment (LRE). Therefore, removal from the general education classroom is to occur only when the student cannot be successfully educated in that setting even with supplemental aids and services. IDEA further emphasizes that a student with disabilities cannot be removed from an age-appropriate general classroom "solely because of needed modifications in the general curriculum." The statute goes on to explain that supplementary aids and services are to be made available in the general education classes to enable the students with disabilities to be educated with nondisabled peers to the maximum extent possible. Assistive technology is included in the definition of "supplementary aids and services" and must be considered for the ways in which it will enable the student to be educated in the general education program.

When determining LRE for a student, the individual needs of the student must be met. Therefore, the district must have available a continuum of placements (e.g., services in general education class, separate class). The burden is on the school district to prove that the general education environment is not beneficial to the student. The school district must also determine if the support of AT will enable the student to remain in the general education environment. The implication is that there must be district-wide awareness of the types of AT devices available and how they might benefit a student in the classroom.

In whatever setting the IEP team determines is the LRE, the school must provide the necessary supports and tools for learning to take place.

Students with disabilities must be provided supplementary services and aids that permit them to benefit from their education.

(IDEA, 2004, 300.320; Ohio Department of Education, 2008, 3301-51-07 (H)(1)(e).)

IDEA defines "supplementary aids and services" to mean aids, services, and other supports that are provided in general education classes, other education-related settings, and in extracurricular and nonacademic settings to enable children with disabilities to be educated with nondisabled peers to the maximum extent appropriate. As stated before, AT is included in this definition. Given the clarification that supports are to be provided in other settings, it is clear that the student should be able to also use a device (such as an AAC device) in after-school and nonacademic functions.

All supplementary aids and services are to be listed in the IEP. This may include AT devices and supports, such as inservice training for the teaching staff. All personnel working with the student should be trained in implementation of the AT in the classroom. Specifically, to ensure that the device is used effectively, these significant people must be familiar with the device and ways in which it will enable the student to benefit from his/her educational program.

With a parent's informed consent, a fair assessment must be completed to determine the student's educational needs.

(IDEA, 2004, 614; Ohio Department of Education, 2008, 3301-51-06 (A)(4).)

Evaluation provides the foundation for the IEP. In the Operating Standard for Ohio Educational Agencies Serving Children with Disabilities (Ohio Department of Education, 2008), the term "assistive technology" is not specifically mentioned in the section entitled "Evaluation Procedures." This section does state, however, that the student shall be assessed in all areas related to the suspected disability, including motor abilities, communicative status, and academic performance.

Providing appropriate AT begins with a comprehensive assessment.

Key principles of assessment in IDEA are as follows:

1. Evaluation instruments must be administered by trained personnel.

2. Instruments include those designed to assess areas of specific need and not

3. Merely those that provide an intelligence quotient (IQ).

4. Evaluation shall be conducted by a multidisciplinary team or group of persons.

5. No single instrument should be the sole criterion for decision-making.

The AT evaluation team must be knowledgeable about the specific area of disability and the technology devices and services that may enable the student to benefit from his/her educational program. If the school district does not employ personnel who can properly evaluate the student's AT needs, it must obtain such services. Assessment should be completed in the student's customary environment and should remain part of a team process that considers the global educational needs of the student.

Parents have the right to an independent AT evaluation at the district's expense, if they disagree with the evaluation conducted by the district.

If a student is identified as having exceptional educational needs, an Individualized Education Program (IEP) must be prepared annually.

(IDEA, 2004, 300.320; Ohio Department of Education, 2008, 3301-51-07 (A).)

The IEP must include the goals for the student, the services the student will receive, and how and where the student will receive those services. The IEP team must consider and determine modifications or tools that are needed for the student to achieve the goals. The IEP must also specify what AT devices and/or services are necessary for the student to receive FAPE.

Assistive technology may be documented in the IEP as part of the student's profile, present levels of academic achievement and functional performance, goals and objectives, transition services, specially designed services, visual impairment services, and participation in state and district testing. Regardless of where in the IEP AT appears, the IEP document should clearly reflect the AT needed and describe the manner in which it will be used as well as the services/supports required.

IDEA vs. Section 504

Section 504 was added to the Rehabilitation Act of 1973. Section 504 prohibits discrimination on the basis of disability in any program receiving special funds, including public school districts.

To be eligible for services under IDEA, a student's disability must meet the definition of one of the several disabilities listed and must require special education services. Under Section 504, on the other hand, students with disabilities are eligible even if they do not need any special education services. Therefore, students who do not meet the criteria under IDEA but who still need some specialized assistance (including AT) are covered by Section 504. If a student with a disability who is not receiving special education services needs an AT device to fully participate in school activities, Section 504 may require that the school provide the device and any training needed to effectively use it at no cost to the parents and be responsible for repairs and maintenance.

Determining Educational Relevance of Assistive Technology Devices and Services

According to Chamber (1997), the school district must answer four specific questions when determining whether AT is educationally necessary for a student:

1. Is the provision of an AT device or service essential for the student to receive FAPE?

2. Is an AT device or service necessary for the student to be educated within the LRE?

3. Are the AT devices and/or services a necessary related service?

4. Given AT services and/or devices, will the student have access to school programs and activities?

If the answer to any of the above questions is yes, the AT device and/or service is legally required, and is the responsibility of the school district.

Related Issues in IDEA 2004

In addition to the sections of IDEA that address AT specifically, other areas of IDEA on supports and services are directly related to AT. Those areas include universal design and the National Instructional Materials Accessibility Standard and the provision of accessible instructional materials.

Universal Design: IDEA refers to the definition of universal design that is used in the Assistive Technology Act.

> **The term 'universal design' means a concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly usable (without requiring assistive technologies) and products and services that are made usable with assistive technologies.**
>
> (Assistive Technology Act of 1998, 29 U.S.C. 3002)

According to IDEA, state educational agencies (or local agencies in the case of district assessments) shall, to the extent feasible, use universal design principles when developing and administering any statewide assessment. With an increased emphasis on the universal design of products and services, some students with disabilities may be able to access and use educational materials without the addition of special AT.

National Instructional Materials Accessibility Standard and Accessibility of Print Materials: One of the most significant AT-related additions to IDEA is the provision of accessible instructional materials to blind students or other students with print disabilities in a timely manner and free of charge. "Print instructional materials" means printed textbooks and related printed core materials that are written and published primarily for use in elementary and secondary school instruction and are required by a state education agency (SEA) or local education agency (LEA) for use by students in the classroom. The law specifies that materials must be formatted to the National Instructional Materials Accessibility Standard (NIMAS) to be used in the preparation of electronic files suitable and used solely for efficient conversion of print materials, including textbooks, in accessible media, free of charge, to blind or other students with print disabilities in elementary and secondary schools.

For additional information on NIMAS/NIMAC, see the National Center on Accessible Instructional Materials: aim.cast.org

For information on NIMAS/NIMAC in Ohio:

Center for Instructional Supports and Accessible Materials (CISAM)

Ohio State School for the Blind

5220 North High Street

Columbus, OH 43214

614.644.8378

cisam.ossb.oh.gov/ContactUs.php

Implications of Case Law Related to Assistive Technology / Computer Provision

The implications of past case law suggest how the courts may rule on future decisions related to computer provisions. Doty, Seiler, and Rhoades (2001) provide a summary of case law as follows:

1. Courts are likely to provide a computer to a student with a disability in order to provide a basic floor of opportunity.

2. Courts are likely to rule for provision of a computer when it is part of a product system. A product system may include additional software and peripheral hardware used along with the computer to provide a system of support for the individual that could not be achieved with any of the items individually. For example, a person with a significant physical challenge who has difficulty writing may not be able to use a standard keyboard or mouse. They may instead need to use switches attached to the computer via a switch interface to make selections from an on-screen keyboard that would then allow them to type into a specialized word processing program. None of these items alone would allow the individual to write independently, but in combining the computer, on-screen keyboard and specialized word processing software, switches and switch interface into a product system the individual would be able to write independently.

3. Courts may rule that a computer is necessary when it will increase the student's access to a LRE.

4. Courts are likely to rule for a computer if a teacher views the computer as necessary for that student.

5. Rejecting the suggestion of a computer for the reason of not knowing how to use it maybe viewed as a denial of a related service necessary for FAPE.

6. In an IEP, if computer use is reasonably calculated to provide some benefit to a student, the court is like to award its use.

Disability Rights Ohio

As case law emerges related to AT, there may be times when assistance is needed by AT users, assessment teams, as well as suppliers to understand their obligation for providing devices and services under the various laws and legislation. Disability Rights Ohio is designated under federal law as the Client Assistance Program under the Rehabilitation Act. As such, the mission of Disability Rights Ohio is to advocate for the human, civil, and legal rights of people with disabilities in Ohio.

Disability Rights Ohio provides legal advocacy and rights protection to a wide range of people with disabilities. This includes assisting with problems such as abuse, neglect, discrimination, access to AT, special education, housing, employment, community integration, voting, and rights protection with the juvenile and criminal justice systems.

Agency: Disabilities Rights Ohio

Address: 50 W. Broad Street, Suite 1400, Columbus, OH 43215-5923

Telephone: 614-466-7264

TTY: 614-728-2553

Website: www.disabilityrightsohio.org/need-our-help

Summary

This section addressed the legislation and laws that pertain to AT. IDEA was discussed as the major law to inform school districts about their obligations to provide AT to students with disabilities. Universal design (UD) and Accessible Instructional Materials (AIM) as identified in IDEA and as related to AT were also discussed. Additionally, it was pointed out that not all students with disabilities are eligible for special education services, and consequently AT, under IDEA. Some students are eligible for AT supports and services under Section 504 of the Rehabilitation Act. Finally, many of laws have been revised over the years, and consequently persons with disabilities have achieved even greater support for acquisition of both AT devices and services.

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Board of Education of the Hendrick Hudson Central School District, Westchester County, et al. v. Rowley, 458 US 176 – Supreme Court 1982; Google Scholar. Retrieved from http://goo.gl/qyU0r

Chamber, A. C. (1997). Has technology been considered? A guide for IEP teams. Arlington, VA: Council of Administrators of Special Education. Retrieved from http://goo.gl/Bq1wF

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The Education for All Handicapped Children Act of 1975, Pub. L. No. 94-142.

Individuals With Disabilities Education Act of 2004, Pub. L. No. 108-446.

Ohio Department of Education. (2008). Operating standards for Ohio educational agencies serving children with disabilities. Retrieved from http://goo.gl/0zOcO

Pachl v. School Board of Independent School District No. 11, Dist. Court, Minnesota 2005. Retrieved from http://goo.gl/lsFNQ

Petit v U.S. Department of Education. US. Court of Appeals for the District of Columbia Circuit 2012. Retrieved from http://goo.gl/ZsHHD

Rehabilitation Act of 1973, Pub. L. No. 93-112.

Technology-Related Assistance for Individuals With Disabilities Act of 1988, Pub. L. No. 100-407.

Timothy W. v. Rochester, NH School Dist., 875 F. 2d 954 – Court of Appeals, 1st Circuit, 1989. Retrieved from http://goo.gl/tw71j

Resources

ADA U.S. Department of Justice. www.ada.gov

ADA Library, JAN Job Accommodation Network. askjan.org/links/adalinks.htm

Association of Assistive Technology Act Programs (ATAP). www.ataporg.org

Disability Rights Ohio. www.disabilityrightsohio.org

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NIMAS Resources. nimas.cast.org/about/resources/index.html

Section 508. www.section508.gov

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Section 3

Assistive Technology Funding

2013

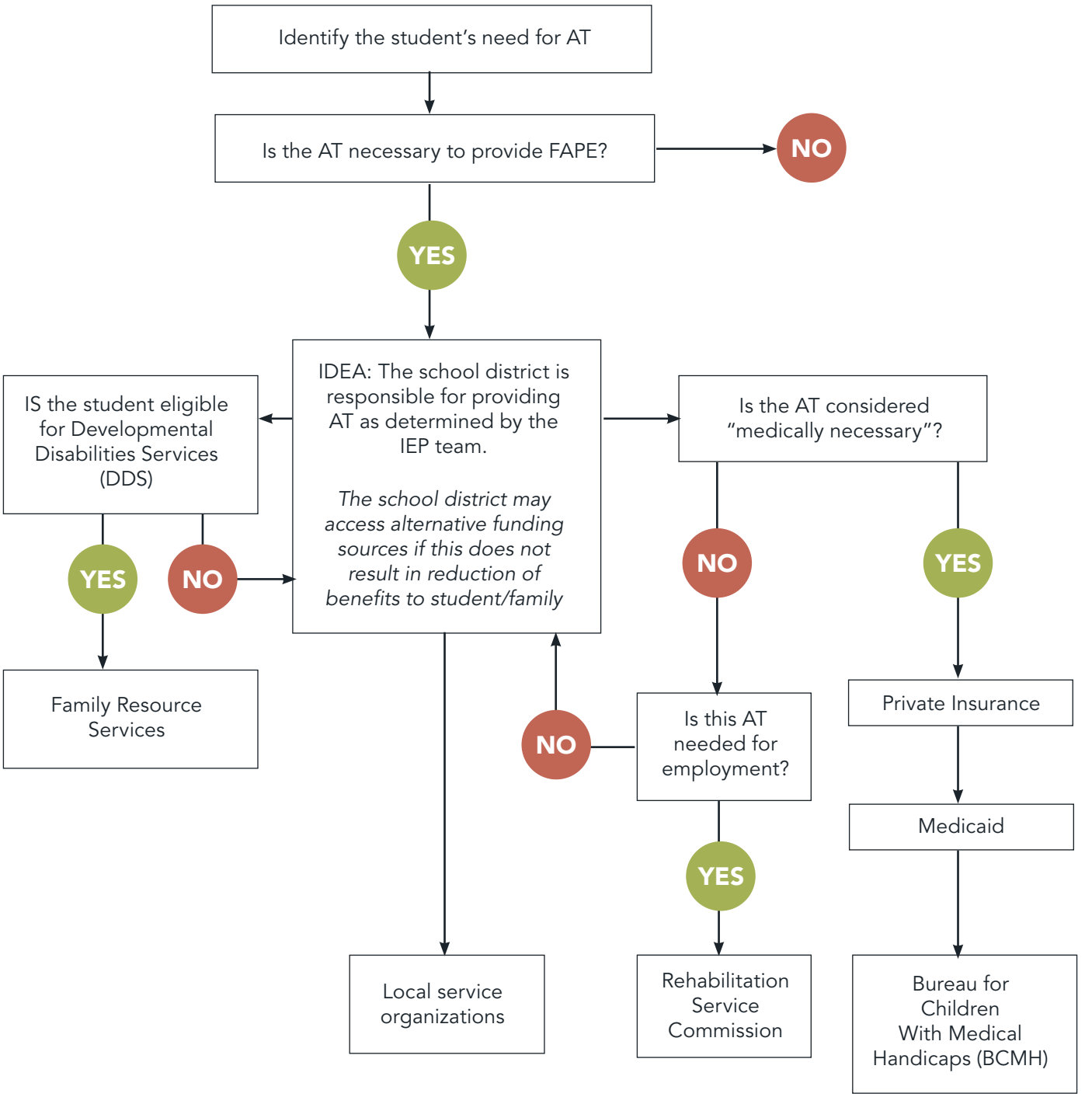
School District Responsibilities for AT Provision

Under IDEA, AT devices and services must be provided if they are required for the student to receive FAPE. The student's IEP team makes this determination. It is the responsibility of the LEA to provide AT as identified within the IEP. According to IDEA,

> **Each public agency must ensure that assistive technology devices or assistive technology services, or both, as those terms are defined in sections 300.5 and 300.6, respectively, are made available to a child with a disability if required as a part of the child's special education, related services, or supplementary aids and services.**
>
> (IDEA, 2004, 300.105(a); Ohio Department of Education, 2008, 3301-51-02 (F)(1).)

Cost may be a consideration when determining final AT recommendations but only if more than one option, determined by the IEP team, will ensure provision of FAPE. LEAs can choose to purchase, rent, or borrow AT, or to utilize AT acquired through the student's insurance. However, the LEA may not require the family to utilize insurance or any other funding source. In the event that no alternative funding is available, the LEA remains responsible for the provision of AT, as specified in the IEP. When AT is provided for a student through a funding source other than the LEA, the LEA remains responsible for any costs related to repair, maintenance, or replacement of AT that is specified in the IEP.

Funding at a Glance



Medicaid – Department of Job and Family Services (DJFS)

Medicaid is a national program of medical assistance for low-income individuals, including persons with disabilities. Many people with disabilities qualify for Medicaid under waiver options when they do not qualify due to family income. Medicaid is administered by each state, and the rules vary from state to state.

In Ohio, the Ohio Department of Job and Family Services (ODJFS) administers Medicaid. Information on eligibility for Medicaid may be obtained by calling your county office of the ODJFS.

Ohio's Medicaid program provides for certain types of AT that are considered medically necessary. Most of these qualify under "durable medical equipment." For example, life-sustaining equipment, such as those for breathing or feeding, is covered. Medicaid also funds prescribed wheelchairs, including customizations and modifications, at five-year intervals. Wheelchair recommendations must include a physician's prescription and an evaluation from a physical therapist on seating involvement. Funding applications for medically necessary technologies are submitted by the vendor.

Augmentative communication is also currently covered by Ohio's Medicaid program because it may be described as a "medical necessity." The rules for provision of a "speech-generating device" (SGD) in Ohio are separate from other areas of Medicaid funding, and rules for application are specific for an SGD. Under Ohio's Medicaid rule, an SGD may be prescribed to facilitate basic communication if the individual is unable to use typical modes to "express basic needs and wants, transfer information, achieve social closeness, or demonstrate social etiquette." (Ohio Administrative Code, 5101:3-10-24).

The SGD application must be completed by an evaluation team led by a licensed speech-language pathologist (SLP). A "licensed SLP" is defined as a person who possesses licensure by the Ohio State Board of SLP&A and Certificate of Clinical Competency (CCC) from the American Speech-Language-Hearing Association (ASHA), or is completing a program of supervised work experience (CFY) from the above licensure agencies. In addition, the licensed SLP must document experience with SGD service delivery.

The rules for Ohio's Medicaid are specific and generally more inclusive of medical technologies than coverage through private health insurance. Individuals who have private insurance in addition to Medicaid must file with their insurance companies before applying to Medicaid. Medicaid will pick up the costs of covered items that are not provided by insurance. Medicaid will also pay for maintenance and modifications. When equipment is acquired through Medicaid, it remains the property of the individual/family.

Educational equipment/aids are considered essentially "nonmedical" and are, therefore, not covered in Medicaid funding.

Several vendors provide funding information that can assist a team in completing an AT evaluation for seating systems and SGDs. Such information may be submitted for Medicaid approval.

Contact your local office of the DJFS for more information on eligibility for Medicaid, jfs.ohio.gov/County/County_Directory.pdf

In addition to Medicaid, a number of waiver programs serve individuals who are eligible for the level of services provided in an Intermediate Care Facility for Individuals With Mental Retardation (ICF/MR) but wish to remain in the home setting. Funding for AT may be provided through these programs. Exploring eligibility for these programs may provide additional funding support beyond that which Medicaid typically offers. The Ohio Department of Developmental Disabilities (DODD) administrates the Medicaid waivers.

Private Insurance

"Private insurance" refers to a contract between the individual/family and an insurance company. The policy coverage, enrollment requirements, and co-payment requirements vary between insurance companies. Medical insurance is based on the "medical necessity" of services and equipment. Private medical insurance may provide certain types of AT and AT services under three categories of funding: prosthesis, durable medical equipment, and therapy services.

Individual policies vary in terms of the types of AT that are covered and the co-payment requirements. Many types of life-sustaining technologies and wheelchairs are covered because they are considered medically necessary. Requests for these types of equipment must include a physician's prescription, other assessment information as specified by the company (e.g., physical therapy report), and vendors' prices.

Some insurance companies consider augmentative communication devices eligible items. Documentation to be sent to a private medical insurance company should include a physician's prescription, a description of the client's profile, including motor, sensory, and communication status. Emphasis should be placed on the medical needs that will be met with the use of a given communication device. Private insurance companies often utilize the guidelines for medical necessity that have been adopted by Medicaid. In the request for funding, include the recommendations and vendor prices and information. Also, include the name of the evaluation team leader and his/her contact information. Medical reviewers often request further clarification/information.

A school district may request but cannot require parents to use private insurance to pay for a student's required services or devices. In many cases, parents are willing to pursue this avenue for a communication device since that will allow them retain to ownership. If the device is used at school to meet the goals of the IEP, the district is responsible for paying for repair and maintenance of the device. Decisions related to who pays what should be made in all instances where the family is providing the funding source for equipment that will be used at school.

If funding is denied upon initial request, the decision may be appealed. Appealing is not uncommon, and insurance companies have an appeals process for this purpose. When considering appealing, determine the reason behind the denial and proceed from there. Many appeals for AT are successful.

Private insurance companies do not consider AT equipment that is primarily educational in nature (e.g., computers for input/output).

Bureau for Children With Medical Handicaps (BCMH)

The Bureau for Children With Medical Handicaps is located within the Ohio Department of Health. This agency provides services to children with special health needs. BCMH is coordinated at the local level through county health nurses.

BCMH operates under two programs: diagnostic and treatment. Any Ohio resident who is under 21 years of age and has a possible medical handicap is eligible for diagnostic services. Financial eligibility must be established for the treatment program, however. A physician who is approved by BCMH must make a referral for both service areas, and qualified BCMH providers must provide diagnostic and treatment services.

BCMH operates as the "payer of last resort," meaning that all other third-party resources must be pursued

before BCMH authorization is considered. Third-part entities include government agencies such as Medicaid, vocational rehabilitation, education, early intervention, etc.

BCMH may provide medically necessary services and AT, including durable medical equipment, medical supplies, and medical appliances such as wheelchairs, braces, prosthetic devices, glasses, and hearing aids. In 1997, BCMH established guidelines for augmentative communication devices. These are now included in the list of covered items. Required documentation is the same as that described for the Medicaid rule for SGDs.

Further information may be obtained by contacting your local health department, or

Ohio Department of Health

Bureau for Children with Medical Handicaps

246 N. High Street

P.O. Box 1603

Columbus, OH 43216-1603

Phone 614-466-1700

Toll-free 800-755-4769

Fax 614-728-3616

Email: BCMH@odh.ohio.gov

www.odh.ohio.gov/odhPrograms/cmh/cwmh/bcmh1.aspx

Family Support Services (FSS)

In 1983, Ohio established a family support program, commonly referred to as the Family Support Services (FSS), to assist families caring for an individual with a developmental disability at home. The support provided with FSS funds enhances the quality of life for the entire family unit, and includes respite care, adaptive equipment, home modifications to accommodate the family member with a disability, special diets, and other services / items that are individualized to meet the family's needs. It is through this program families may obtain AT services and devices. Guidelines for the program specify equipment and services that promote self-sufficiency and inclusion, prevent or reduce inappropriate institutional care, and further the unity of the family.

Family Support Services are regulated by County Boards of Developmental Disabilities (DD). The family member with a disability must qualify for DD services by being evaluated under the Children's Ohio Eligibility Determination Instrument (COEDI). A family may apply for family support services by contacting a case manager at the county board of DD. Depending on the family's taxable income, a percentage of co-payment may be required for requested services or equipment. Some counties limit how much families may receive, generally ranging from $500 to $2,500. County Boards of DD may establish local policies in this regard. Families may utilize their family resource money allotments for the purchase of AT. Schools may ask parents to pursue this avenue of funding; however, the result should not pose a reduction of funds for other items the family/ individual may need.

For specific information about your county, contact your local DD program. For general information about services provided through the Ohio Department of Developmental Disabilities visit the following website: odmrdd.state.oh.us/

Vocational Rehabilitation

Vocational rehabilitation (VR) services originated from the Rehabilitation Act of 1973, with the intent to provide training, assessment, placement, and other services to people with physical or mental disabilities who could benefit from employment or other identified goals. The emphasis of VR services is on economic self-sufficiency, independence, and integration into society.

The Ohio Rehabilitation Services Commission (ORSC) consists of the Bureau of Vocational Rehabilitation (BVR), Bureau of Services for the Visually Impaired (BSVI), and Bureau of Disability Determination (BDD).

A Rehabilitation Services counselor (RSC) is the only person who may determine an individual's eligibility for VR. Eligibility determines that the individual has a disability that results in a substantial barrier to employment and that he/she can benefit from VR in terms of employment outcomes. Consideration involves a diagnostic assessment and a comprehensive assessment. The results of these assessments are compiled into the Individual Written Rehabilitation Plan (IWRP), which specifies the employment objectives, long-term rehabilitation goals, intermediate objectives, specific services to be provided, and rehabilitation technology, if appropriate. Rehabilitation technology many include rehabilitation engineering, AT devices, and/or AT services.

IDEA mandates that an Individual Transition Plan be developed for students by the time they turn age 16, or, in Ohio, by the age of 14.

A transition plan addresses a student's needs in each of the following areas: instruction, related services, community experiences, employment, development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and provision of a functional vocational evaluation. Vocational rehabilitation can become involved when this plan is initiated.

Information about VR services may be obtained from:

Ohio Rehabilitation Services Commission

400 E. Campus View Blvd.

Columbus, OH 43235-4604

Phone: 800-282-4536

Division of Disability Determination

800.282.2695 - When asked for an extension, press "0" (zero).

www.rsc.ohio.gov/

Social Security Administration

Under the Social Security Act, two programs may benefit individuals with disabilities: Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI). For both programs, eligible individuals must be at least 65 years old, blind, or disabled. Additionally, SSI considers income resources and defines the disability based on an inability to engage in "substantial gainful employment." For children, the impairment must be of "comparable severity" to one that qualifies an adult. SSI and SSDI do not directly provide funding for AT. Yet, qualifying individuals may access other services and work incentives. Eligibility for SSI or SSDI also brings eligibility for Medicaid and/or Medicare. (See Medicaid.)

Social Security has published a booklet that defines the services that are available to children with disabilities; it may be viewed at www.ssa.gov/pubs/10026.html - Introduction.

To learn how to apply for Social Security disability benefits or for additional information and brochures about SSDI or SSI, call the Social Security Administration toll-free at 1-800-772-1213 voice or 1-800-325-0778 TTY.

Click this link to learn about local Social Security offices in your area: https://secure.ssa.gov/ICON/main.jsp

Assistive Technology Ohio

Assistive Technology Ohio is funded under the Assistive Technology Act, commonly referred to as the Tech Act. Assistive Technology Ohio helps Ohioans with disabilities learn about or acquire AT through low-interest loans, equipment exchange, equipment loans, and a computer-recycling program.

Assistive Technology of Ohio

AT Consults, Device, Information and Referral

Suite 3300

Martha Morehouse Pavilion

Columbus, OH 43221

Phone: 800-784-3425 / 614-293-9134

Fax: 614-293-9127

E-mail: atohio@osu.edu

Website: www.atohio.org/

Service Clubs and Organizations

Service clubs and organizations are another potential source of funding for AT. Local groups such as the Lions, Sertoma, Shriners, Kiwanis, Rotary, churches, and sororities/ fraternities often fill the gap when human service delivery systems fall short. These types of organizations typically represent a membership and come together to help members of their community. As such, they perceive their role as providing tangible assistance to an individual with a disability. It may be necessary to enlist help from more than one such organization to raise the amount of money needed.

The application process tends to be less formal than for state and federal agencies. Become familiar with the various organizations in your community and their interest areas. Make the request in specific and reasonable terms. After the initial contact, many organizations ask for a formal presentation. Clearly describe the individual's need and the funding needed but recognize that they may only provide partial funding. A presentation should be personal using language that can be understood by the layperson. Parent/family permission should always be obtained before initiating any contact with local organizations on their behalf.

Steps to Funding

1. Identify and Define the Need

Ensure a comprehensive AT assessment process is completed to identify the student's needs. Concise documentation of need facilitates determining the direction to be taken in obtaining funding. Funding for AT is NEVER impossible if the documented need is clearly defined.

- Include personal letters of support from parents and educators describing the student's potential and how the AT will increase his/her ability to participate in the specific area of need.
- State the individual's need(s) in "medical," "vocational," or "educational" terms, depending on the focus of the funding source.

2. Identify Equipment and Services Needed

Research and identify the equipment and services required. Obtain pricing information and formal quotes from manufacturers and vendors.

- Include information flyers describing the equipment.
- Take pictures or video of the student using the equipment during a trial period.
- Find out if the manufacturer/vendor provides assistance in the funding pursuit.

3. Identify Possible Funding Sources

Establish a list of possible funding sources that exist for the student. Consider the medical or educational basis for the equipment needed. Explore the student's eligibility for various agencies that may fund equipment or services.

- Identify someone who will serve as the "funding advocate" to coordinate efforts.

4. Collect and Submit the Required Paperwork

Identify the exact procedures for a funding source before submitting. Funding sources require different documentation and format as part of the application process.

- If appropriate, apply to multiple funding sources at the same time.
- Be patient, but persistent in the funding search.

5. If Necessary, Pursue the Appeals Process

Determine the reason for a denial and pursue to clarify. The appeals process is fairly common in securing funding for AT. Often a denial is due to lack of understanding by reviewers of the need or importance of the equipment.

Summary

This section described a number of funding options. For school-age students with disabilities, the responsibility for funding AT often lies with the school system. However, the school district is only obligated to provide funding for AT if certain conditions are met. Generally speaking, under IDEA, AT devices and services must be provided if they are required for the student to receive FAPE. The student's IEP team makes this determination. Beyond the school district, many other funding sources may be available to a student, including private, public assistance, and not-for-profit organizations. All eligible funding sources should be explored before a final funding source/s is selected.

Local Funding Worksheet

The following form may be used to record and reference local agencies that may be contacted when seeking funding for AT.

Medicaid:
Description: Must be Medicaid eligible. Medicaid funds durable medical equipment and medically related services. Wheelchair applications must be completed through the vendor in conjunction with the student's physical therapist. Speech-generating device (SGD) applications must be made through an ASHA-certified speech-language pathologist and submitted by the vendor.

Contact: Initiate (family/individual) the Medicaid application for eligibility through the County Department of Job and Family Services.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Private Insurance:
Description: Private insurance refers to a contract between the individual/family and the insurance company. Medical insurance is based on the "medical necessity" of services and equipment. Private medical insurance may provide certain types of AT and AT services under three categories of funding: prosthesis, durable medical equipment, and therapy services.

Contact: Contact (family/individual) private insurance provider.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Bureau for Children With Medical Handicaps (BCMH):
Description: Offers diagnostic assessment for students under 21 years of age with a possible medical handicap. Treatment is based on financial eligibility.

Contact: County Health Department.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Family Support Services:
Description: Student eligibility determined by County Board of Developmental Disabilities. Amount of assistance monies varies.

Contact: Ohio Department of Developmental Disabilities Gateway.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Vocational Rehabilitation: Ohio Rehabilitation Service Commission and Bureau for the Visually Impaired:
Description: Eligibility possible when student reaches age 14 or a Transition Plan is initiated. Eligibility determined by VR counselor.

Contact: Regional vocational rehabilitation office.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Social Security:
Description: SSI and SSDI do not directly provide funding for AT; yet, qualifying individuals may access other services and work incentives. Eligibility for SSI or SSDI also brings eligibility for Medicaid and/or Medicare.

Contact: Click this link to learn about local Social Security offices: https://secure.ssa.gov/ICON/main.jsp

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

E-Mail _____

Service Clubs and Organizations:
Description: Local groups such as the Lions, Sertoma, Shriners, Kiwanis, Rotary, churches, and sororities/ fraternities often fill the gap when human service delivery systems fall short.

Contact: Explore local community service organizations.

Organization _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

Organization _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

Organization _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

References

Individuals With Disabilities Education Act of 2004, Pub. L. No. 108-446.

Ohio Department of Education. (2008). Operating standards for Ohio educational agencies serving children with disabilities. Retrieved from http://goo.gl/0zOcO

Resources

Assistive Technology of Ohio. www.atohio.org

Assistive Technology Funding and Systems Change Project. www.icdri.org/Assistive Technology/atfs.htm

Goodwill Easter Seals Miami Valley Assistive Technology Services. www.assistivetechservices.org/

Neighborhood Legal Services, Inc. (2003, April).The public school's special education system as an assistive technology funding source: The cutting edge. www.nls.org/Disability/NYSAssistiveTechnologyProject/Archives/SpecialEdBooklet

Ohio Department of Health. (n.d.). A handbook for families of children with special health care needs in Ohio: Programs and services. http://goo.gl/hK8S7

Ohio Department of Developmental Disabilities. odmrdd.state.oh.us/Pages/default.aspx

Ohio Department of Job and Family Services. jfs.ohio.gov/

Ohio Rehabilitation Services Commission, Columbus, OH. www.rsc.ohio.gov/

Ohio Department of Health, Bureau for Children With Medical Handicaps. www.odh.ohio.gov/odhPrograms/cmh/cwmh/bcmh1.aspx

Section 4

Assistive Technology Consideration in the IEP

2013

Implications of Assistive Technology Consideration

Beginning with the reauthorization of IDEA in 1997, the IEP team is required to "consider" the AT needs of every student receiving special education services.

1. Development of IEP

a. Consideration of special factors. The IEP team must:

i. Consider whether the child needs assistive technology devices and services

(IDEA 2004, 300.324)

When addressing "AT consideration" within the IEP process, it is important to realize that "consideration" is by nature a brief process that must be conducted during the development of every student's annual IEP. At least one person on the IEP team should have some knowledge about AT. AT consideration requires that the team participate in a consistent decision-making process in relation to the student's goals and objectives that facilitate access and progress in the general curriculum.

The following is a listing of the quality indicators for consideration of AT needs to help teams effectively implement the consideration process:

Quality Indicators for Consideration of Assistive Technology Needs

Consideration of the need for AT devices and services is an integral part of the educational process contained in IDEA for referral, evaluation, and IEP development. Although AT is considered at all stages of the process, the Consideration Quality Indictors are specific to the consideration of AT in the development of the IEP as mandated by the Individuals with Disabilities Education Act (IDEA). In most instances, the Quality Indicators are also appropriate for the consideration of AT for students who qualify for services under other legislation (e.g., 504, ADA).

1. Assistive technology devices and services are considered for all students with disabilities regardless of type or severity of disability.

Intent: Consideration of assistive technology need is required by IDEA and is based on the unique educational needs of the student. Students are not excluded from consideration of AT for any reason. (e.g., type of disability, age, administrative concerns)

2. During the development of an individualized educational program, every IEP team consistently uses a collaborative decision-making process that supports systematic consideration of each student's possible need for assistive technology devices and services.

Intent: A collaborative process that ensures that all IEP teams effectively consider the assistive technology of students is defined, communicated, and consistently used throughout the agency. Processes may vary from agency to agency to most effectively address student needs under local conditions.

3. IEP team members have the collective knowledge and skills needed to make informed assistive technology decisions and seek assistance when needed.

Intent: IEP team members combine their knowledge and skills to determine if assistive technology devices and services are needed to remove barriers to student performance. When the assistive technology needs are beyond the knowledge and scope of the IEP team, additional resources and support are sought.

4. Decisions regarding the need for assistive technology devices and services are based on the student's IEP goals and objectives, access to curricular and extracurricular activities, and progress in the general education curriculum.

Intent: As the IEP team determines the tasks the student needs to complete and develops the goals and objectives, the team considers whether assistive technology is required to accomplish those tasks.

5. The IEP team gathers and analyzes data about the student, customary environments, educational goals, and tasks when considering a student's need for assistive technology devices and services.

Intent: The IEP team shares and discusses information about the student's present levels of achievement in relationship to the environments, and tasks to determine if the student requires assistive technology devices and services to participate actively, work on expected tasks, and make progress toward mastery of educational goals.

6. When assistive technology is needed, the IEP team explores a range of assistive technology devices, services, and other supports that address identified needs.

Intent: The IEP team considers various supports and services that address the educational needs of the student and may include no tech, low tech, mid-tech and/or high tech solutions and devices. IEP team members do not limit their thinking to only those devices and services currently available within the district.

7. The assistive technology consideration process and results are documented in the IEP and include a rationale for the decision and supporting evidence.

Intent: Even though IEP documentation may include a checkbox verifying that assistive technology has been considered, the reasons for the decisions and recommendations should be clearly stated. Supporting evidence may include the results of assistive technology assessments, data from device trials, differences in achievement with and without assistive technology, student preferences for competing devices, and teacher observations, among others.

COMMON ERRORS

1. AT is considered for students with severe disabilities only.
2. No one on the IEP team is knowledgeable regarding AT.
3. Team does not use a consistent process based on data about the student, environment and tasks to make decisions.
4. Consideration of AT is limited to those items that are familiar to team members or are available in the district.

5. Team members fail to consider access to the curriculum and IEP goals in determining if AT is required in order for the student to receive FAPE.

6. If AT is not needed, team fails to document the basis of its decisions.

(The QIAT Consortium, 2012, pp. 1-2)

Prior to AT consideration within the IEP development, the educational team must identify the student's unique needs and what tasks are to be performed in the educational program. The team must have realistic expectations of what the student should be able to do and establish goals and objectives for specially designed instruction.

Consider these examples:

- A 7-year-old student with cerebral palsy is unable to use a pencil to write letters and words clearly. He dictates answers to his teacher for many assignments. What expectations should his teacher have for him to independently write answers in his school assignments? Should AT be considered?
- An 8-year-old student has a severe visual impairment. The text in the second-grade books is too small for her to recognize. Other students read the text aloud to her. What expectations for increased independence are there for this student to gain information from text material? Should AT be considered?
- A 13-year-old student with learning disabilities is able to write assignments. However, because of severe spelling and grammar errors, most of his assignments are unacceptable. What are the expectations for this student to be able to correct spelling and grammar in all assignments? Should AT be considered?
- A student with developmental disabilities participates in a fourth-grade inclusion classroom. The parents want the student to participate in all activities that the other students are doing. The subject material is cognitively becoming difficult for the student. Therefore, a full-time aide assists him so that he can complete assignments. Are the curriculum expectations appropriate for this student? Should AT be considered?
- A student in the intermediate multiple disabilities classroom is not able to speak. He initiates a few signs and uses gestures to obtain his wants and desires. He frequently displays behavioral outbursts during classroom activities when others don't understand what he is trying to communicate. Because of this behavior, he is not included in any general education settings. What expectations are there for this student to communicate more effectively? Should AT be considered?

In each of these instances, the student is unable to participate in classroom activities through typical modes due to his/her disability. Determination of special education services and goals and objectives must be based on a clear understanding of the student's needs and the classroom expectations.

When developing the student's IEP, the Present Levels of Performance should define the educational expectations as well as the student's areas of difficulty due to his/her disability. The educational expectations should start with the expected participation of typical students and then specify what is expected of the student with disabilities. Enabling the student to participate may involve a series of interventions, strategies, modifications, accommodations, as well as AT.

For these reasons, consideration of AT must be integrated into the IEP process, as opposed to being an afterthought as simply a "special factor."

As the result of AT consideration, the team will reach one of three decisions:

1. AT is not needed. The student is making adequate progress with the available instruction and interventions. Indicate "no."

2. AT is needed. Indicate "yes" and describe in the IEP how, when, and where the new or current devices and services will be provided.

3. AT is needed, but the IEP team is unsure of what devices and services are most appropriate. Indicate "yes." Then decide the areas on which AT will be tried and gather data to determine the best solution. The team may explore resources within or from outside the district to adequately assess the student's need for AT.

Documenting Assistive Technology Consideration

The IEP document makes provisions for special factors, which includes consideration of the student's need for AT. The following statement is listed on the Special Instructional Factors page of the IEP:

Does the child need assistive technology devices and/or services?

☐ YES ☐ NO

This simple check system does not suggest any means for the IEP team to reach a conclusion or document that the student's AT needs have been considered.

The OCALI Consideration for Assistive Technology Checklist form (see Appendix B) lists several questions to help guide IEP teams in a comprehensive discussion for the purpose of considering students' AT needs as they relate to school performance. Following is an example of the form with annotations for each of the questions indicating the type and content of discussions that may occur.

OCALI Consideration for Assistive Technology Checklist

Student Name _____

Date _____

Check an area in which there is concern about the student functioning as independently as possible. (If no concern, indicate "no" in the Special Considerations section of the IEP.)

☐ Academic

☐ reading ☐ writing ☐ math ☐ learning/studying

☐ Communication

☐ understanding language ☐ using language ☐ speaking clearly

☐ Access

☐ computer access ☐ mobility ☐ seating & positioning

☐ Environmental Control

☐ Activities of Daily Living

☐ play ☐ recreation/leisure ☐ self-care ☐ vocational

☐ Social Behavior

☐ following routines and rules ☐ making transitions ☐ staying on task

☐ Vision

☐ Hearing

☐ Other _____

1. What specific task in the area identified above do we want this student to perform that he/she is unable to do because of his/her disability?

The team should define and describe the specific tasks that the student must be able to do. "Other" areas of need may be related to life skills areas, such as mobility, seating and positioning, environmental control, or activities of daily living.

2. What current special strategies, accommodations or assistive technologies have been tried to enable the student to complete this task? How well have they worked? (Include in the Present Levels of Performance section of IEP.)

The IEP team should recognize and discuss the strategies, accommodations, or AT that are currently in place to facilitate achievement of the student's educational expectations. This may include current AT devices or services.

"How well have they worked?"
Have current strategies and tools enabled the student to accomplish the goals and objectives at the desired level of independence? If the answer to this question is "yes," the IEP must contain documentation to support this conclusion. If the answer is "no," the IEP team should continue to ask questions to determine the best course of action. The team should explore the reasons why the present accommodations are not meeting the student's needs. For example, the student's abilities may have changed or a new level of expected participation is in order. **(Include in the Present Levels of Performance section of IEP.)**

3. Are there continuing barriers when the student attempts this task? If so, describe. (Include in the Present Levels of Performance section of IEP.)

The team should be specific in determining the concerns that exist. Describe the team's new expectations for the student as related to the tasks that were previously defined. **(Include in the Present Levels of Performance section of IEP.)**

4. Are there new or additional assistive technologies to be tried to address continuing barriers? If so, describe. (Document in Services section of IEP.)

If team members have the necessary collaborative knowledge to identify new or additional technologies, these should be discussed at this time. If the team is not prepared to include these in the IEP, discussion should follow on what extended consideration and/or assessment is needed. **(Document in Services section of IEP.)**

5. Is there a need for further investigation and/or assessment to determine assistive technology solutions? (Describe this plan and document in Services section of IEP.)

The IEP team must now determine if the decisions regarding AT can be recommended during the immediate IEP process or if extended assessment is necessary to make determinations on AT devices and services that match the current concerns.

The existing team may remain the same during the extended assessment and decision-making process, or additional assistance may be required. Not every team will know everything about all possible AT devices and systems. The individual variables and expertise of team members must be considered at this point with regard to the appropriate course of action. **(Describe this plan and document in Services section of IEP.)**

Any current, new, and/or additional AT devices and services that are outlined on the consideration worksheet must be documented within the body of the IEP. AT devices and services may be included in the student's goals and objectives as a related service or as supplementary aids and services, depending on the situation.

Consideration of AT in the educational program must be ongoing. As the needs of the student change, or at the least during an annual IEP review, the process of consideration must continue.

The Difference Between Assistive Technology "Consideration" and Assistive Technology "Assessment"

While AT consideration is generally a brief process, an AT assessment implies a more indepth look at the student's abilities and needs for AT. The IEP team must understand the steps to be taken to obtain this assessment. The decision to complete an assessment that "extends" beyond the immediate IEP process must also be written into the IEP document, indicating the areas of concern that will be explored. The assessment procedures may be completed by the existing IEP team if knowledgeable resource persons serve on the team. Otherwise, it may be necessary to contact outside professionals.

For more information about AT consideration and AT assessment, please see the following two Assistive Technology Internet Modules "AT Consideration in the IEP Process" (Harris, 2011) and "AT Assessment Process in the School Environment" (Smith, 2011).

Summary

This section presented information on the AT consideration process. District IEP teams must consider AT for all students with disabilities who have IEPs. The consideration process is more than putting a simple check in the AT section of the Special Factor section of the IEP. The team should have a meaningful discussion about the student's needs related to AT. A form with discussion questions was provided to help guide teams in this process. Finally, the difference between AT consideration and AT assessment was discussed.

References

Harris, A. M. (2011). AT assessment process in the school environment: Online training module. In Ohio Center for Autism and Low Incidence (OCALI), Assistive Technology Internet Modules. Columbus, OH: OCALI. www.atinternetmodules.org

Individuals With Disabilities Education Improvement Act of 2004. 20 U.S.C. 1400 et seq. (2004).

The QIAT Consortium. (2012). Quality indicators for consideration of assistive technology needs. In Quality indicators (pp. 1-2). Retrieved from indicators.knowbility.org/indicators.html

Smith, S. J. (2011). AT consideration in the IEP Process: Online training module. In Ohio Center for Autism and Low Incidence (OCALI), Assistive Technology Internet Modules. Columbus, OH: OCALI. www.atinternetmodules.org

Resources

Georgia Project for Assistive Technology (GPAT). (n.d.). Considering assistive technology for students with disabilities. http://goo.gl/txH0p

The QIAT Consortium. (2012). Quality indicators for including assistive technology in the IEP. In Quality indicators (pp. 5-6). indicators.knowbility.org/indicators.html

Zabala, J. (2002). A brief introduction to the SETT framework. www.sbac.edu/~ese/AT/referralprocess/SETTUPDATE.pdf

Zabala, J. S. (2005). Assistive technology consideration guide. www.joyzabala.com/uploads/Zabala_SETT_Scaffold_Consideration.pdf

Section 5

The Assistive Technology Assessment Process in the School Environment

2013

Overview of the Assistive Technology Assessment Process

Selecting and implementing AT requires more than a simple assessment to ensure a "match" between the student's abilities and the features of a device. The chosen AT must be useful in the student's environment to perform needed tasks. In order to make this type of recommendation, the student and his/her personal and professional supporters must collaboratively identify the needs and generate solutions that will facilitate the identified goals. The following process is designed to guide educational teams in a systematic consideration and determination of AT for individual students.

1. Initiation of the AT process

2. Identification of the team

3. Assessment for assistive technology

- a. Student
- b. Environment
- c. Tasks
- d. Tools

4. Discussion of AT systems and recommendations

5. Acquisition and implementation

6. Followup and ongoing assessment

Previous sections outlined the quality indicators for administrative support and professional development as well as the process for AT consideration. The following quality indicators provide suggested best practices regarding AT assessment.

Quality Indicators for Assessment of Assistive Technology Needs

Quality Indicators for Assessment of Assistive Technology Needs is a process conducted by a team, used to identify tools and strategies to address a student's specific need(s). The issues that lead to an AT assessment may be very simple and quickly answered or more complex and challenging. Assessment takes place when these issues are beyond the scope of the problem solving that occurs as a part of normal service delivery.

1. Procedures for all aspects of assistive technology assessment are clearly defined and consistently applied.

Intent: Throughout the educational agency, personnel are well informed and trained about assessment procedures and how to initiate them. There is consistency throughout the agency in the conducting of assistive technology assessments. Procedures may include - but are not limited to - initiating an assessment, planning and conducting an assessment, conducting trials, reporting results, and resolving conflicts.

2. Assistive technology assessments are conducted by a team with the collective knowledge and skills needed to determine possible assistive technology solutions that address the needs and abilities of the student, demands of the customary environments, educational goals, and related activities.

Intent: Team membership is flexible and varies according to the knowledge and skills needed to address

student needs. The student and family are active team members. Various team members bring different information and strengths to the assessment process.

3. All assistive technology assessments include a functional assessment in the student's customary environments, such as the classroom, lunchroom, playground, home, community setting, or work place.

Intent: The assessment process includes activities that occur in the student's current or anticipated environments because characteristics and demands in each may vary. Team members work together to gather specific data and relevant information in identified environments to contribute to assessment decisions.

4. Assistive technology assessments, including needed trials, are completed within reasonable timelines.

Intent: Assessments are initiated in a timely fashion and completed within a time line that is reasonable as determined by the IEP team. The timeline complies with applicable state and agency requirements.

5. Recommendations from assistive technology assessments are based on data about the student, environments and tasks.

Intent: The assessment includes information about the student's needs and abilities, demands of various environments, educational tasks, and objectives. Data may be gathered from sources such as student performance records, results of experimental trials, direct observation, interviews with students or significant others, and anecdotal records.

6. The assessment provides the IEP team with clearly documented recommendations that guide decisions about the selection, acquisition, and use of assistive technology devices and services.

Intent: A written rationale is provided for any recommendations that are made. Recommendations may include assessment activities and results, suggested devices and alternative ways of addressing needs, services required by the student and others, and suggested strategies for implementation and use.

7. Assistive technology needs are reassessed any time changes in the student, the environments and/or the tasks result in the student's needs not being met with current devices and/or services.

Intent: An assistive technology assessment is available any time it is needed due to changes that have affected the student. The assessment can be requested by the parent or any other member of the IEP team.

COMMON ERRORS

1. Procedures for conducting AT assessment are not defined, or are not customized to meet the student's needs.

2. A team approach to assessment is not utilized.

3. Individuals participating in an assessment do not have the skills necessary to conduct the assessment, and do not seek additional help.

4. Team members do not have adequate time to conduct assessment processes, including necessary trials with AT.

5. Communication between team members is not clear.

6. The student is not involved in the assessment process.

7. When the assessment is conducted by any team other than the student's IEP team, the needs of the student or expectations for the assessment are not communicated.

(The QIAT Consortium, 2012, pp. 3-4)

Step 1: Initiation of the AT Assessment Process

Referral to initiate the AT process is generally the result of concern by an educational professional and/or a parent or discussion within an existing team about a student's needs. This individual or team has noted an area of the student's educational program in which he/she is unable to participate due to his/her disability. The question being asked is:

> **"What is it that we expect the student to be able to do within the educational program that he/she isn't able to do because of his/her disability?"**

The answer to this question should be specific, based on concerns noted within the educational goals that have been established for the student. Areas that are often considered include:

handwriting	**spelling**
reading	**math**
written expression	**communication**
mobility	**recreation**
seating/positioning	**listening**
seeing	**self-care**

Regardless of whether this concern is identified in the IEP process, by an individual during instructional periods or as a part of another teaming practice (e.g., multi-factored evaluations, intervention assistance processes), a conscious initiation of the AT assessment and decision-making must take place. Failure to formally initiate the concern runs a serious risk that efforts will not be systematically directed and may be dismissed before they are resolved.

Any AT decision-making requires the efforts of a dynamic team approach. The selection of devices or equipment should never be based on the recommendations of a single team member. All persons who are involved with the student in the educational program should have input on the selections being made.

Step 2: AT Assessment Team

A variety of service delivery models are available for team decision-making. The educational model generally reflects the regulations that are defined in the IDEA. Within the model or approach that is utilized by a school district, collaboration is essential in processes for determining appropriate AT for a student.

> **In the collaborative model, it is assumed that no one person or profession has an adequate knowledge base or sufficient expertise to execute all the functions (assessment, planning, and intervention) associated with providing educational services for students.**
>
> **All team members are involved in planning and monitoring educational goals and procedures, although each team member's responsibility for the implementation may vary. Team members can be considered as sharing joint ownership and responsibility to intervention objectives.**
>
> (American Speech-Language-Hearing Association, 1991)

In the collaborative model, all members of the team should contribute their talents to make the process work. At various times during the process, the emphasis may be heavier on one member or another. Yet, when information is discussed, each member should be present so that a balance is created to focus on the purpose of the AT process.

Team members will change over time, but the student/family remains a constant. The entire process should strive to make the student/family an integral part of the system and empower them to make further decisions along the way. The educational team provides the resources and input on the environment and tasks that are needed for the student to reach new levels of achievement. The recommended team members will vary with each student, depending on the student's needs and abilities and the levels of technology being considered. A team facilitator or leader should be designated who will be responsible for coordinating activities, maintaining timelines, and ensuring that the process continues in a progressive manner. All team members should receive written notification of all team meetings. It is important to encourage members to be actively involved in the process.

The following is a list of potential team members and the roles they may play in the process.

The Student: The student is the only constant on the team. Whenever possible, the student should be an active participant in the decision-making process. The student's opinion should be sought and respected. The student is the one who will benefit from the technology, and who will or will not choose use it.

The Family: The parents or primary caregivers have the most knowledge about the student's everyday life, preferences, and means to deal with his/her disability. Making the family part of the team brings another perspective of the student's life that may not be seen by the educational staff. Varying degrees of active family involvement are understandable and acceptable in the team process.

Classroom Teachers: Classroom teachers are responsible for the student's entire educational programming. They have an understanding of the student's abilities and the opportunities for participation in the curriculum. Teachers are also responsible for implementing educational strategies so that educational, functional, and social goals can be achieved. Both special and general educators involved with the student should be on the team.

Instructional Assistants: Teaching assistants work with teachers to help implement the curriculum and make student learning possible. They are often the primary facilitators for use of AT with a student in the classroom. They may be able to provide insight on the daily routine and schedule for the student during the school day.

School Psychologist: The psychologist is able to provide information on the student's cognitive level of functioning and his/her specific learning styles.

Speech/Language Pathologist: Speech-language pathologists (SLP) can provide insight on the student's present modes of communication and potential for speech development, and suggest ways to maximize the student's communication ability throughout the day. They often can assist in developing vocabulary and design for augmentative communication systems.

Occupational Therapists: Occupational therapists (OT) provide information on the student's fine-motor skills. They frequently focus on functional use of the upper extremities and can be instrumental in addressing special access needs as well as seating and positioning. OTs may also provide information about the student's visual motor integration and sensory processing skill. Information about these areas might impact the visual positioning or display and the sensory features needed to maximize the student access of the AT.

Physical Therapists: Physical therapists (PT) are able to evaluate the seating and positioning issues and make recommendations for strategies that increase the student's access to the school environment and activities. They facilitate the student's comfort, proper development, and safety as well as mobility.

Orientation and Mobility Specialists: These individuals examine the ability of a student with visual impairment to maneuver the environment for safe and efficient travel.

Audiologists: An audiologist tests hearing and recommends assistive listening systems that enhance the student's listening skills.

School Nurse: The school nurse may have input on the medical needs and care of the student at school.

Family Physician: The physician addresses the medical issues and monitors medical complications. The physician is involved in the prescription of many seating, mobility, and augmentative communication devices, as well as funding procurement from third-party sources (e.g., Medicaid, health insurance).

Other Medical Personnel: Specialized medical personnel, such as orthopedic specialists or optometrists, may provide specific information related to the student's disability.

Low-Vision Specialist: These specialists provide a functional vision evaluation and information on optical aids that are appropriate.

Vocational Counselor/Case Manager: It is particularly important to involve the vocational counselors as the student is reaching the age when transition goals are to be established. They may provide insight and support on vocational options and skills.

School Administrators/Special Education Supervisors: Administrators have various job responsibilities that involve management of educational programs and fiscal issues. They may be instrumental in supporting the teaming process, scheduling meeting times, and allotting staff time for technical training. The more involved the school administrator is throughout the process, the greater the understanding of the student's needs will be when it is time to procure funding.

School Technology Contact: The school district technology staff may provide technical information and support as considerations are made. This staff may later be responsible for technical assistance to maintain the equipment.

Assistive Technology Specialist: An AT specialist may be able to serve as a resource for AT device options, vendors, loan programs, and technical training. A specialist may also be able to assist the team in identifying the student's abilities as they relate to the use of AT.

Assistive Technology Providers: Vendors and distributors of AT equipment may assist in identifying specific features appropriate for a student. They may also provide demonstrations, training, or trial periods of some equipment. Vendors are also responsible for application for funding to Medicaid.

Rehabilitation Engineer: These individuals provide information on customization for access to AT devices and equipment. They also offer input regarding the features, computer interfaces, settings, and access methods available on AT hardware and software.

Team Decision-Making Strategies

1. Establish team meetings at a time that is convenient for all team members. Notify members in writing of the meeting.

- Date
- Time
- Location

2. Share roles and responsibilities during the meeting.

- **Facilitator:** Ensures that the meeting runs smoothly and efficiently, accomplishing the intended purpose.
- **Time Keeper:** Keeps the team moving so that discussion moves at a pace that ensures that all topic areas are covered in the allotted amount of time.
- **Recorder:** Writes down information, suggestions, and decisions that have been made by the team.

3. Present information in a written format where everyone can see it.

- Chalkboard
- Flip chart
- Over head projector

4. Use brainstorming rules.

- Write all ideas down
- Accept all suggestions
- Generate as many ideas as possible

5. Prioritize suggestions and develop an action plan.

- Summarize actions to be taken
- Assign roles and responsibilities

6. Reach a consensus

- Poll members
- Ask for support, even if they might have preferred another direction

7. Plan for the next meeting

- Summarize and establish action plan
- Define timeline and responsibilities of action plan
- Schedule the next meeting, date, time, location

(Gierach, 2009)

Step 3: Assessment for Assistive Technology

Any educational assessment process must begin with a data collection system that provides information on the student's identified needs. During an AT assessment, information about the Student, the Environments, and the Tasks, must be gathered and thoughtfully considered before an appropriate system of Tools can be proposed and acted upon. The SETT Framework, developed by Joy Zabala, 2005 is an organizational tool used by many teams as a foundation for gathering and organizing information for good decision-making.

The questions posed in the SETT Framework were developed as a guideline and a place to start. Teams may need to seek answers to other questions as the process proceeds. However, in most instances, the questions will relate to one of the areas of these guidelines.

Overview of SETT

The Student

- What does the student need to do?
- What are the student's current abilities?
- What are the student's special needs?

The Environments

- What is the instructional setting?
- What is the physical arrangement?
- What materials and equipment are currently available?
- What supports are available?
- What are the attitudes and expectations?
- What are the concerns?

The Tasks

- What tasks occur that enable student progress toward mastery of IEP goals?
- What are the tasks that allow the student to actively participate in daily life?
- What is everyone else doing?
- What are the critical elements of the activity/task?

The Tools

- What system of no-tech, low-tech, and high-tech tools should be considered to support the student in performing the tasks identified in these environments?
- What strategies might be used to increase student performance?
- How might these tools be tried out with the student in the customary environments in which they will be used?

(Zabala, 2005a)

Extending the SETT Framework

The Student

What does the student need to do?

The answer to this question may initially be a general response, such as "to write" or "to talk." While elaboration is desirable, later in the Tasks and Environments section, these issues will be explored more deeply. The goal at this time is to establish consensus on the purpose of the AT process.

What are the student's special needs and current abilities?

This question should generate conversation about the barriers that keep the student from doing whatever needs to be done. It should also focus on the student's "abilities." No matter how great the needs, everyone has abilities that can be built upon and enhanced.

Discussion should include all aspects of the student, providing a broad description of what we know and what we need to know. In this process, the team may review areas of:

- cognitive abilities
- motor abilities
- sensory abilities
- language abilities
- social/emotional abilities

The team should also determine if additional information on the student's abilities is necessary and designate a person to be responsible for obtaining this data. The assessment guides included at the end of this manual may assist team members in gathering specific information on the student's abilities in reference to the use of assistive technology.

The Environment

What is the instructional setting?
What is the physical arrangement?
Outline the environments in which the student functions along with the physical characteristics of this setting (e.g., the general ed. classroom for all subject-matter classes; special classroom with one-on-one instruction; cafeteria, playground).

What materials and equipment are currently available?
What supports are available?
Define the curriculum materials being used, adaptive techniques or equipment available to the class/student, and supports to the instructional program that currently exist (e.g., full-time aide with student; alternate curriculum materials used with the student; peer tutoring; classroom communication device used with all students; computer in classroom).

What are the attitudes and expectations?
Define the expectations that currently exist for the student in the educational setting. Determine if these expectations are realistic or enabling the student to perform at expected levels of independence.

What are the concerns?
Note concerns in the educational setting that should be addressed. Further observation may need to be made of the environment. In order to focus on AT tools that remove barriers, it is first necessary to address the environmental barriers that may exist.

The Tasks

What tasks occur that enable student progress toward mastery of goals?
The purpose of this step is to determine what opportunities are present that enable the student to move toward the goals and objectives included in the IEP. If the answer is "none," AT tools will not solve the problem! Students need to be given appropriate task opportunities as well as appropriate instructional strategies in order for AT to be useful.

What tasks lead to active participation in the educational environment?
What is everyone else doing?
One place to begin when considering the tasks is to identify "what everyone else is doing." Participation in the same activity does not always lead to the same results for all participants. Therefore, it is important to determine if there meaningful opportunities within the standard curriculum that can be accomplished by students with disabilities through supports and scaffolds.

What are the critical elements of the activity?
At this point, list the elements of the activity that the student should be expected to perform. Further task analysis may be recommended to more clearly identify the task skills needed.

(Zabala, 2005b)

The information that has been complied about the student, environments, and tasks should provide a clear picture of the educational expectations for the individual student and areas of need to be addressed.

The information from this part of the assessment process may be summarized on the SETT form Assessment Summary of Student Need for Assistive Technology below.

Assessment Summary of Student Need for Assistive Technology

Name _____ Date _____

Use this form to analyze data and define the student's specific need for assistive technology.

STUDENT _____ Area(s) of Need _____	
ENVIRONMENTS	TASKS
Specific Concerns/Needs: *What do we want the student to do?*	

(Assessment Summary of Student Need for Assistive Technology. Adapted from SETT Scaffold for Gathering Data [Zabala, 2005c].)

Data-Gathering Techniques

When developing a system for collecting information related to AT, keep in mind the SETT framework – collecting information on (a) the student's abilities, (b) the environments in which the student participates, and (c) the tasks he/she is expected to perform. A variety of methods may be utilized to obtain these data.

Observation: Observations in natural settings yield information on the student's abilities to participate in various activities. They also provide an opportunity to view the participation patterns of peers. Work samples enable comparisons between the student's performance and what is expected of others in the classroom.

Interaction: Interacting with the student may provide an opportunity to elicit behaviors that are otherwise not typically seen. Direct assessment involves an interactive process. When considering the AT needs of a student, engage the student in tasks similar to what is required in the classroom, creating opportunities for the student to try assistive modifications that might be beneficial. A variety of AT devices may need to be available for this assessment period.

Interviews: Asking specific questions of the student, family, or school personnel generates information specific to the needs, abilities, interests, and participation patterns of the student.

Record Review: Past history, medical, or specialized assessment information provides insight on the various aspects of the student.

Assistive Technology Assessment Guides

An Assistive Technology Assessment Guide is included in Appendix A of this resource guide. It should be considered only a "guide" to data gathering. The guide provides one approach to systematically enable the team to consider and gather needed information. Other methods of standardized or informal assessment may and should be included as deemed necessary.

Now that the team is satisfied that the student's needs and abilities, tasks, and environments have been clearly defined, consideration should proceed to assessment of tools that may be applicable to assist the student in attaining the expected educational goals. **The team must match the educational needs with features of AT tools**, strategies to be considered, and availability of equipment for trial periods. Two forms that may be useful for this purpose are the Assessment for Assistive Technology Tool System and the Assistive Technology Solution Continuum found on the following pages and in Appendix B.

Assessment for Assistive Technology Tool System

Name _____

Date: _____

Area of Need: _____

Specific Tasks: State in terms of what the student is expected to do	No-Low-High-Tech Tools Options/Solutions and Features	Availability for Trial Use	Results

The Tools

What system of no-tech, low-tech, and high-tech tools should be considered to support the student in performing the tasks identified in these environments?

The tools aspect of the assessment process is where many teams want to start. However, without a clear understanding of the student, environments, and tasks, the process will not effectively generate the answers to the question posed here.

Additional data may have to be obtained to make a precise determination of applicable tools. Available AT is ever changing and advancing. No one person who can know everything about every possible AT device and/or service. If team members feel they have exhausted their knowledge base and resources to make specific tool selections, they may have to seek input from other agencies or persons who have experience in the area of AT being considered.

Keeping the required features of a system in mind, the team may find it helpful to brainstorm options that will assist the student in achieving the desired level of performance. This list should be recorded on a wall chart or board where it is clearly visible to all team members. Next, the list may be categorized, beginning with the simplest, least intrusive suggestions, and advancing to high-tech alternatives. A sample continuum chart is shown below.

Alternatives for Handwriting Difficulties	**Alternatives for Verbal Communication**
Regular pencil or pen Pencil grip, larger size Portable word processor Computer with keyguard Wrist/arm support Enlarged keyboard Voice recognition software	Manual signs Photograph cards Picture symbol boards Voice output with single message Voice output with multiple levels and overlays Voice output with dynamic display
Alternatives for Vision Difficulties/Reading	**Alternatives for Reading Difficulties**
Peer reading of materials Highlighting key words Audio books Speaking spell check device Talking word processing program Text with picture supports	Text enlargement on copy machine Word cards written in larger form Use of this markers for text Peer reading Audio-recorded text materials Talking word processing Screen reading software

The following chart may be used to develop a continuum of solutions of no-tech, low-tech, and high-tech AT options.

Assistive Technology Solution Continuum

Student _____

Date: _____

1. Identify the area of student needs (e.g., handwriting, speech, reading) and generate a continuum of AT options, including no-tech, low-tech, and high-tech. Begin with the simplest, least intrusive solutions.

2. Discuss the suggested solutions and make conclusions on the effectiveness of this solution.

Alternatives for:	Conclusions

When developing a continuum of AT solutions, consider the activity and the task requirements, and make decisions for each situation that will provide the most appropriate means of student participation without changing the critical elements of the activity.

What strategies might be used to increase student performance?
No-tech strategies, including modifications and adaptations to the educational program, should also be considered as part of the tools assessment. Team members must be careful not to be so caught up in the high-tech devices that they forget the obvious strategies that will provide the student with increased learning opportunities. For example, a student who has difficulty writing quickly enough to take notes may benefit from guided notes to limit the amount of text he needs to write. This is a low-tech solution rather than providing him with sophisticated note-taking software. Such strategies may be considered in addition to AT devices or individually to eliminate current barriers.

Assistive technology decision-making is a match between the student's abilities, needs, and expectations and features that facilitate input and processing. The team must keep in mind that this may include both devices and services. A system of tools must work in combination to assist a student in moving forward.

How might these tools be tried out with the student in the environments in which they will be used?
The team may decide on a trial period in which certain AT devices and strategies are implemented.
The team should consider what options are accessible for trial periods. The tools that are systematically and programmatically available to all students should be explored first. Can these tools be used by the student and, if so, what additional accommodations are needed for the student to participate in the required tasks? What features may be added to these existing technologies? If these tools are not effective for the student it may be necessary to trial additional tools not readily available in the school.

OCALI has an extensive loan library of AT equipment. These devices can be checked out online from the OCALI Lending Library: www.ocali.org/project/lending_library

For every trial period, the team should determine the training needed by staff and families, the timeframe for a fair trial, and the criteria for collecting data to be used in determining success. In this process, it is important that all team members understand the criteria, as discussed below.

Step 4: Discussion of AT Systems and Recommendations

As the assessment portion of the AT process progresses, the team must begin to focus on which solutions will enable the student to complete identified tasks.

With the data gathered, the team has a clear picture of the student's needs and abilities, as well as the tasks required in different activities. Then the team can begin to formulate views on AT options that may be considered for the student. During this phase of the process, the team must:

- define the features that need to be added to the student's tool system
- specify a continuum of no-tech, low-tech, and high-tech solutions and strategies
- make recommendations for acquisition and implementation

Criteria for Selection
There are several questions for the team to address as they consider possible solutions. These involve the device, the manufacturer/vendor, and the student.

Device:

1. Is the design appropriate to meet the student's needs/abilities?
2. Will the device stand up to portability and durability requirements?
3. What is the reliability of the device?
4. Does the device have expansion or upgrade capabilities?
5. Will the device place restrictions on the student's other areas of functioning?
6. Is software support available?
7. Does the device have academic relevance?
8. Is repair easily accessible?
9. Is operation and programming easy to do?
10. Is the device compatible with other existing adaptive technologies?

Manufacturer/Vendor:

1. Is the device reasonably priced?
2. Is training and technical support available?
3. Are loaners/rentals available during repair?
4. Is there an adequate warranty?

Student:

1. Are operational demands minimal?
2. Do the technological capabilities match the student's needs/abilities?
3. Is the student satisfied with the device?
4. Are the parents satisfied with the device?
5. Will the technology prepare the student to meet future needs?
6. Does the device allow for independent use?
7. Is the system compatible with other technologies in the home/community?

A team consensus on all AT recommendations should be obtained. If the process has progressed efficiently to this point, no team participant should have to respond, "I don't know enough to make that decision." Everyone should understand the needs of the student and the applications of the suggested technologies, and feel comfortable in making a recommendation decision. The team may utilize the information that has been summarized in the assessment process. This will keep the team focused on the results of the assessment,

which specified the student's abilities and educational needs, as well as the generation and trial use of AT tool options. The team should keep in mind that modifications, strategies, and services are as important to the decision-making process as the technology equipment that is being recommended. All recommendations should be recorded, including a brief sentence on how the AT will enable the student to more successfully participate in the educational program.

Step 5: Acquisition and Implementation

Essentially, the implementation process is well underway before this step is reached. As assessment and trial periods have been taking place, the team has been establishing new strategies and techniques for increasing the student's participation in the educational program. Specific plans must be outlined to facilitate ongoing implementation, including acquisition of personal devices and inclusion of the goals in the IEP.

The team must determine the plan and actions that are necessary to obtain the AT devices that have been recommended. A written action plan may also be needed to detail the responsibilities of each person. Without group memory in the form of a written plan, important details are easily forgotten or overlooked.

1. Identify source of equipment and costs
    a. Locate vendor or manufacturer
    b. Obtain a price quote in writing
2. Identify possible funding sources
    a. Refer to the funding section to determine appropriate sources
    b. Determine person(s) who will seek funding sources
3. Order equipment
4. Plan for training as needed
5. Set up equipment
6. Establish technical support system

The selected AT devices and services needed for successful implementation must be recorded in the student's IEP. Further information on including AT in the IEP may be found in Section 7.

Note: In an effort to assist schools in saving funds and providing learning supports for all students, Ohio schools may purchase selected assistive AT software and hardware at discounted pricing through the OCALI Assistive Technology State Discount Program: www.ocali.org/project/at_state_discount

Quality Indicators for Assistive Technology Implementation

Assistive technology implementation pertains to the ways that assistive technology 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. Assistive technology implementation involves people working together to support the student using assistive technology to accomplish expected tasks necessary for active participation and progress in customary

educational environments.

1. Assistive technology implementation proceeds according to a collaboratively developed plan.

Intent: Following IEP development, all those involved in implementation work together to develop a written action plan that provides detailed information about how the AT will be used in specific educational settings, what will be done and who will do it.

2. Assistive technology is integrated into the curriculum and daily activities of the student across environments.

Intent: Assistive technology is used when and where it is needed to facilitate the student's access to, and mastery of, the curriculum. Assistive technology may facilitate active participation in educational activities, assessments, extracurricular activities, and typical routines.

3. Persons supporting the student across all environments in which the assistive technology is expected to be used share responsibility for implementation of the plan.

Intent: All persons who work with the student know their roles and responsibilities, are able to support the student using assistive technology, and are expected to do so.

4. Persons supporting the student provide opportunities for the student to use a variety of strategies– including assistive technology– and to learn which strategies are most effective for particular circumstances and tasks.

Intent: When and where appropriate, students are encouraged to consider and use alternative strategies to remove barriers to participation or performance. Strategies may include the student's natural abilities, use of assistive technology, other supports, or modifications to the curriculum, task or environment.

5. Learning opportunities for the student, family and staff are an integral part of implementation.

Intent: Learning opportunities needed by the student, staff, and family are based on how the assistive technology will be used in each unique environment. Training and technical assistance are planned and implemented as ongoing processes based on current and changing needs.

6. Assistive technology implementation is initially based on assessment data and is adjusted based on performance data.

Intent: Formal and informal assessment data guide initial decision-making and planning for AT implementation. As the plan is carried out, student performance is monitored and implementation is adjusted in a timely manner to support student progress.

7. Assistive technology implementation includes management and maintenance of equipment and materials.

Intent: For technology to be useful it is important that equipment management responsibilities are clearly defined and assigned. Though specifics may differ based on the technology, some general areas may include organization of equipment and materials; responsibility for acquisition, set-up, repair, and replacement in a timely fashion; and assurance that equipment is operational.

COMMON ERRORS

1. Implementation is expected to be smooth and effective without addressing specific components in a plan. Team members assume that everyone understands what needs to happen and knows what to do.

2. Plans for implementation are created and carried out by one IEP team member.

3. The team focuses on device acquisition and does not discuss implementation.

4. An implementation plan is developed that is incompatible with the instructional environments.

5. No one takes responsibility for the care and maintenance of AT devices and so they are not available or in working order when needed.

6. Contingency plans for dealing with broken or lost devices are not made in advance.

   (The QIAT Consortium, 2012, pp. 7-8)

Step 6: Follow Up and Ongoing Assessment

The first weeks after the AT equipment has been obtained is generally the time when the majority of questions arise. This is the time to work out the "bugs" and make changes that will increase the confidence level of the team, the student, and the family. Training of staff and families may also occur at this time. As questions arise, they should be documented so they can be addressed at the next team meeting.

A follow up meeting should be scheduled after initial implementation. At this time, the entire team should be prepared to discuss and document data-collection results. Specifically, team members should use the data to address the following:

- successful solutions and activities that have occurred
- solutions that did not work, with a discussion of "why"
- possible problems and necessary changes

AT assessment is an ongoing process. When changes in the student's abilities and/or educational needs are noted, data should be collected and steps should be taken to determine what additional information is needed or which changes to the implementation of AT should be considered. Maintaining the equipment in operational order is important. The team should establish a plan designating the procedures to be followed if technical issues occur. Local troubleshooting is desirable if possible. A specialized service provider or technology coordinator from the school district may be able to locate and correct problems.

Information on warranty and service contacts should be maintained. This includes the results of service or technical support that has been provided over time. The Assistive Technology Technical Support Data form on the following page may be used to record equipment information.

Assistive Technology Technical Support Data

Student Name: _____

Equipment Name: _____

Serial Number: _____

Purchase Date: _____

Manufacturer: _____

Address: _____

_____

Telephone: _____

Vendor: _____

Address: _____

_____

Telephone: _____

Purchased By: _____

Warranty Information: (*maintain copy of original invoice)

_____

Technical Support: _____

Telephone: _____

Training Received:

Date:	Provided By:	Provided To:

Person/Agency Responsible for Maintenance and Repair:

_____

Service Record

Date	Problem	Result

Quality Indicators for Evaluation of the Effectiveness of Assistive Technology

This area addresses the evaluation of the effectiveness of the AT devices and services that are provided to individual students. It includes data collection, documentation and analysis to monitor changes in student performance resulting from the implementation of assistive technology services. Student performance is reviewed in order to identify if, when, or where modifications and revisions to the implementation are needed.

1. Team members share clearly defined responsibilities to ensure that data are collected, evaluated, and interpreted by capable and credible team members.

Intent: Each team member is accountable for ensuring that the data collection process determined by the team is implemented. Individual roles in the collection and review of the data are assigned by the team. Data collection, evaluation, and interpretation are led by persons with relevant training and knowledge. It can be appropriate for different individual team members to conduct these tasks.

2. Data are collected on specific student achievement that has been identified by the team and is related to one or more goals.

Intent: In order to evaluate the success of assistive technology use, data are collected on various aspects of student performance and achievement. Targets for data collection include the student's use of assistive technology to progress toward mastery of relevant IEP and curricular goals and to enhance participation in extracurricular activities at school and in other environments.

3. Evaluation of effectiveness includes the quantitative and qualitative measurement of changes in the student's performance and achievement.

Intent: Changes targeted for data collection are observable and measurable, so that data are as objective as possible. Changes identified by the IEP team for evaluation may include accomplishment of relevant tasks, how assistive technology is used, student preferences, productivity, participation, and independence, quality of work, speed and accuracy of performance, and student satisfaction, among others.

4. Effectiveness is evaluated across environments during naturally occurring and structured activities.

Intent: Relevant tasks within each environment where the assistive technology is to be used are identified. Data needed and procedures for collecting those data in each environment are determined.

5. Data are collected to provide teams with a means for analyzing student achievement and identifying supports and barriers that influence assistive technology use to determine what changes, if any, are needed.

Intent: Teams regularly analyze data on multiple factors that may influence success or lead to errors in order to guide decision-making. Such factors include not only the student's understanding of expected tasks and ability to use assistive technology but also student preferences, intervention strategies, training, and opportunities to gain proficiency.

6. Changes are made in the student's assistive technology services and educational program when evaluation data indicate that such changes are needed to improve student achievement.

Intent: During the process of reviewing evaluation data, the team decides whether changes or modifications need to be made in the assistive technology, expected tasks, or factors within the environment. The team acts on those decisions and supports their implementation.

7. Evaluation of effectiveness is a dynamic, responsive, ongoing process that is reviewed periodically.

Intent: Scheduled data collection occurs over time and changes in response to both expected and unexpected results. Data collection reflects measurement strategies appropriate to the individual student's needs. Team members evaluate and interpret data during periodic progress reviews.

COMMON ERRORS

1. An observable, measurable student behavior is not specified as a target for change.
2. Team members do not share responsibility for evaluation of effectiveness.
3. An environmentally appropriate means of data collection and strategies has not been identified.
4. A schedule of program review for possible modification is not determined before implementation begins.

(The QIAT Consortium, 2012, pp. 9-10)

Transitions

Transitions occur frequently in schools – each time a new school year begins, a student changes classes or teachers, new staff is added, the student enters a new building, and so on. When AT is necessary for a student to achieve in the educational setting, transitions should be carefully planned. In particular, the records that have been kept on the student are critical for new staff to review as they will enable them to understand the abilities of the student, expectations in the educational program, and ways that the AT facilitates expected student participation. In turn, incoming staff should examine the environment and tasks that are required in the new setting. In short, collaboration between "old" and "new" must take place.

Issues that should be addressed during transitions include those that have been identified in the SETT framework:

The Student: Assess current abilities, special needs.

The Environments: Examine the transitioning environments and identify the instructional settings and physical arrangements; identify concerns to be addressed.

The Tasks: Examine the task requirements in the new setting and how they may vary from current expectations.

The Tools: Describe the AT systems that are being utilized and how they enable the student to meet the educational requirements. Determine the training that is necessary for the new staff. Provide information on technical support that is available.

The AT process is ongoing!!!

Quality Indicators for Assistive Technology Transition

Transition plans for students who use assistive technology address the ways the student's use of assistive technology devices and services are transferred from one setting to another. Assistive technology transition involves people from different classrooms, programs, buildings, or agencies working together to ensure continuity. Self-advocacy, advocacy and implementation are critical issues for transition planning.

1. Transition plans address assistive technology needs of the student, including roles and training needs of team members, subsequent steps in assistive technology use, and follow-up after transition takes place.

Intent: The comprehensive transition plan required by IDEA assists the receiving agency/team to successfully provide needed supports for the AT user. This involves the assignment of responsibilities and the establishment of accountability.

2. Transition planning empowers the student using assistive technology to participate in the transition planning at a level appropriate to age and ability.

Intent: Specific self-determination skills are taught that enable the student to gradually assume responsibility for participation and leadership in AT transition planning as capacity develops. AT tools are provided, as needed, to support the student's participation.

3. Advocacy related to assistive technology use is recognized as critical and planned for by the teams involved in transition.

Intent: Everyone involved in transition advocates for the student's progress, including the student's use of AT. Specific advocacy tasks related to AT use are addressed and may be carried out by the student, the family, staff members or a representative.

4. AT requirements in the receiving environment are identified during the transition planning process.

Intent: Environmental requirements, skill demands and needed AT support are determined in order to plan appropriately. This determination is made collaboratively and with active participation by representatives from sending and receiving environments.

5. Transition planning for students using assistive technology proceeds according to an individualized timeline.

Intent: Transition planning timelines are adjusted based on specific needs of the student and differences in environments. Timelines address well mapped action steps with specific target dates and ongoing opportunities for reassessment.

6. Transition plans address specific equipment, training and funding issues such as transfer or acquisition of assistive technology, manuals and support documents.

Intent: A plan is developed to ensure that the AT equipment, hardware, and/or software arrives in working condition accompanied by any needed manuals. Provisions for ongoing maintenance and technical support are included in the plan.

COMMON ERRORS

1. Lack of self-determination, self-awareness and self-advocacy on part of the individual with a disability (and/or advocate).
2. Lack of adequate long range planning on part of sending and receiving agencies (timelines).
3. Inadequate communication and coordination.
4. Failure to address funding responsibility.
5. Inadequate evaluation (documentation, data, communication, valued across settings) process.
6. Philosophical differences between sending and receiving agencies.
7. Lack of understanding of the law and of their responsibilities.

(The QIAT Consortium, 2012, pp. 11-12)

Planning for the Future

The educational process must prepare students for their future, with the inclusion of AT if needed. For many students, utilization of AT is a lifetime need. Therefore, goals that are established should reflect the student's future vocational and/or daily living needs. Increased independence is desirable. Educators must not wait for the "next team" to plan for the future and consider what skills the student must gain to reach his/her potential. The final question must always be: What is the student able to achieve with this AT that will facilitate attainment of future aspirations?

Summary

In this section the AT assessment process was reviewed. Steps of the process included initiation of the assessment, identifying the assessment team, implementing the SETT framework, identifying AT systems and making recommendations, acquisition and implementation of AT, and finally followup and follow-along to ensure continued effective use of the AT. The importance of utilizing a team approach for AT assessment throughout each phase of the assessment process was emphasized. It was noted that the selection of devices or equipment should never be based on the recommendations of a single team member. The section ended with a brief discussion about the importance of transition planning when AT is used to support student performance.

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Section 6

Writing Assistive Technology Into the IEP

2013

Overview of Assistive Technology and the IEP

The IEP is a collaboratively created document designed to help guide the delivery of special education supports and services for the student with a disability. Section 5 outlined the requirement to consider AT for every student who has an IEP and documentation of that consideration. This section will discuss further documentation of AT devices and services within other sections of the IEP.

The IEP must include a description of AT devices or services, or both, to be provided, if such devices and/or services are required as part of the special education program. The IDEA requirements for school districts state:

Assistive Technology

A. Each public agency shall ensure that assistive devices or assistive technology services or both ... are made available to a student with a disability if required as part of the child's

1. Special education,
2. Related services, or
3. Supplementary aids and services.

B. On a case-by-case basis, the use of school-purchased assistive technology devices in a child's home or in a setting is required if the child's IEP team determines that the child needs access to those devices in order to receive FAPE.

(IDEA, 2004, 300.105)

Quality Indicators for Including Assistive Technology in the IEP

The Individuals with Disabilities Education Improvement Act (IDEA) requires that the IEP team consider AT needs in the development of every Individualized Education Program (IEP). Once the IEP team has reviewed assessment results and determined that AT is needed for provision of a free, appropriate, public education (FAPE), it is important that the IEP document reflects the team's determination in as clear a fashion as possible. The Quality Indicators for AT in the IEP help the team describe the role of AT in the child's educational program.

1. The education agency has guidelines for documenting assistive technology needs in the IEP and requires their consistent application.

Intent: The education agency provides guidance to IEP teams about how to effectively document assistive technology needs, devices, and services as a part of specially designed instruction. related services, or supplementary aids and services

2. All services that the IEP team determines are needed to support the selection, acquisition, and use of assistive technology devices are designated in the IEP.

Intent: The provision of assistive technology services is critical to the effective use of assistive technology devices. It is important that the IEP describes the assistive technology services that are needed for student success. Such services may include evaluation, customization or maintenance of devices, coordination of services, and training for the student and family and professionals, among others.

3. The IEP illustrates that assistive technology is a tool to support achievement of goals and progress in the general curriculum by establishing a clear relationship between student needs, assistive technology devices and services, and the student's goals and objectives.

Intent: Most goals are developed before decisions about assistive technology are made. However, this does not preclude the development of additional goals, especially those related specifically to the appropriate use of assistive technology.

4. IEP content regarding assistive technology use is written in language that describes how assistive technology contributes to achievement of measurable and observable outcomes.

Intent: Content which describes measurable and observable outcomes for assistive technology use enables the IEP team to review the student's progress and determine whether the assistive technology has had the expected impact on student participation and achievement.

5. Assistive technology is included in the IEP in a manner that provides a clear and complete description of the devices and services to be provided and used to address student needs and achieve expected results.

Intent: IEPs are written so that participants in the IEP meeting and others who use the information to implement the student's program understand what technology is to be available, how it is to be used, and under what circumstances. "Jargon" should be avoided.

COMMON ERRORS

1. IEP teams do not know how to include AT in IEPs.
2. IEPs including AT use a "formula" approach to documentation. All IEPs are developed in similar fashion and the unique needs of the child are not addressed.
3. AT is included in the IEP, but the relationship to goals and objectives is unclear.
4. AT devices are included in the IEP, but no AT services support the use.
5. AT expected results are not measurable or observable.

(The QIAT Consortium, 2012, pp. 5-6)

There is no clear-cut criterion for where AT devices and services should be documented in the IEP. Necessary AT may be included in several sections of the IEP, as noted in the following list:

- Special Instructional Factors
- Child's Profile
- Present Level of Academic Achievement and Functional Performance
- Postsecondary Transition Services

- Measurable Annual Goals
- Measurable Objectives
- Description/s of Specially Designed Services
- Statewide and District Testing
- Children With Visual Impairments

Considering the purpose of the AT can help in selecting an appropriate area. Questions that a team might consider when documenting AT in the IEP include the following:

- Is the AT to be used as an allowable accommodation for state and district testing?
- Does the student need AT when transported to and from school?
- Is the student visually impaired?
- Do others need to be trained in order for the AT to be successful for the student?
- Is the AT needed for employment, independent living, or postsecondary activities?

The AT may be included and referenced in more than one section of the student's IEP. This might occur if a student uses AT across a wide range of activities and environments such as is often the case with AAC devices as well as many other types of AT.

Following are descriptions and examples of the various sections of the IEP where AT might be included.

Special Instructional Factors

Within the IEP document, provision is made for special factors, which includes consideration of the student's need for AT. This is the statement that is listed on the Special Instructional Factors page of the IEP:

Does the child need assistive technology devices and/or services?

☐ YES ☐ NO

This simple check system does not offer any suggested means for the IEP team to reach a conclusion or documentation that the student's AT needs have been considered. The OCALI Consideration for Assistive Technology Checklist outlines a process that IEP teams should follow in making consideration for AT. See Section 5 for more information about the AT consideration process.

Child's Profile

This section is a place to summarize the child's strengths and needs. As such, it typically includes relevant medical history, safety information, interests, background information, present levels of academic achievement and functional performance that would not be included in the goals to be addressed, and, as appropriate, performance on state and district assessments. This is also the area of the IEP where the parents' educational concerns are documented. Additionally, for students of preschool age, a summary of the child's developmental strengths and needs in all relevant areas should be documented. AT documentation in this area might include information about prior AT assessments with a summary of results, past use of AT and the outcomes, and descriptions of current AT systems and how they impact the child's progress in the general education curriculum.

Example of AT in the Child's Profile:

> K.D. has a functional verbal vocabulary consisting of intelligible single words that she uses effectively to convey her wants and needs, label, protest, and greet. She uses an augmentative communication system (to make comments, ask questions, and talk about things that are not in her environment). The augmentative communication system characteristics include direct selection, dynamic display with pictures and words using 64-84 locations, and generating single words to full sentences. K.D. is using a portable AAC device in a variety of settings. This speech-output system positively impacts her progress in the general education curriculum because it enables her to contribute to class discussions. This, in turn, allows for adequate assessment of what she knows.

Postsecondary Transition and Transition Services

At age 14, in Ohio, students enter the transition process. At that time, they complete one or more age-appropriate transition assessments. The data from these assessment/s will guide the development of a statement of transition service that focuses on the student's course of study. A summary of the resultws of the transition assessments is included in the IEP. At the age of 16, a postsecondary transition plan is developed, which includes measurable postsecondary goals in the areas of education and training, employment, and independent living.

If AT is used by the student or it is suspected that AT could assist the student in postsecondary, employment, or independent living activities, it should be incorporated into the transition plan. The need for AT may be documented directly in the sections goals, services, and activities sections of the transition plan.

Present Level of Academic Achievement and Functional Performance

This section should include current baseline data showing skill gap or need. These skill gaps or needs should emerge later as targets for goals and objectives. If the IEP was well written prior to consideration of AT, the information within the Present Level of Academic Achievement and Functional Performance should provide a clear description of the student's abilities. If not, the data that have been collected during the AT assessment process should be included. Modifications, accommodations, or AT devices and services that are currently implemented should also be included, along with a statement indicating why these are effective or indicating if further needs should be addressed.

The following are examples of three possible outcomes of AT consideration and implementation that may be represented in the Present Levels of Academic Achievement and Functional Performance section of the IEP.

1. Current AT No Longer Effective for the Student

The following are examples of ways that AT may be written in the Present Level of Academic Achievement and Functional Performance:

Example indicating need to reassess AT supports for written communication:
Jon is in the fourth grade; his handwriting is illegible and slow. He handwrites at a speed of 3 WPM, which is much slower than that of his fifth-grade peers. He has difficulty meeting the written production demands required this school year. He is able to type using a portable word processor at 10 WPM, and while this has helped to ensure that his typing speed is much closer to the speed of grade-level peers, he may benefit from the additional use of keystroke reduction such as abbreviation/expansion and word prediction to further increase his typing speed. Jon needs further assessment of his AT needs to determine if additional AT supports can further increase his written production speed to meet better meet the current academic writing demands.

Example indicating need to reassess AT supports for reading difficulty:
Jill is a high school student in the 10th grade with a specific learning disability in reading. She comprehends text that is presented auditorily at grade level and answers grade-appropriate questions about the text. When attempting to read independently, however, she has a great deal of difficulty decoding words, which interrupts her fluency and interferes with her ability to comprehend the meaning of text. She currently reads at a third-grade level. The use of text-to-speech software on the computer, digitally formatted materials created by her teachers, and the provision of Accessible Instructional Materials (AIM) has improved Jill's ability to independently read and comprehend some grade-level text. Jill also participates in a vocational exploration class provided by her high school. When participating in these school activities outside of the school environment, Jill is occasionally confronted with challenges in accessing text-based materials, Jill needs further AT assessment to determine if there are mobile solutions to support her reading needs while out in the community class.

Example indicating the need to reassess the augmentative communication device:
Brent activates a static display, voice-output device using a head switch at his left temple to scan and convey messages about his basic needs, for social interactions, and to respond to classroom activities. His device has levels but requires that an adult change the content of the vocabulary to match the activity. Brent is in the second grade and currently successfully uses a vocabulary of approximately 300 words. He is just beginning to attempt to combine words to create short phrases and also appears to understand vocabulary classification. Brent needs further AT assessment to determine if he can more independently access his full vocabulary to express his wants and needs without the assistance of an adult to change his vocabulary overlays on his device.

2. Student Needs Assessment of AT Needs

As mentioned, the Present Level of Academic Achievement and Functional Performance is the documented statement of present abilities that leads to the identification of needs to be addressed in the goals and objectives of the IEP. If during the AT consideration process the team recommends extended assessment, a statement to that effect may be included in the Present Level of Academic Achievement and Functional Performance.

Example indicating need for extended assessment:
Nick has a weak grasp due to a progressive neuromotor condition, and as a result he has difficulty handwriting responses beyond a few sentences. Due to his fine-motor difficulties, Nick dictates extended paragraph forms to his resource teacher to complete his assignments. A more independent mode of writing is needed for Nick,

and further assessment is necessary to determine accommodations that will enable him to complete paragraphs without assistance.

Example indicating need to explore assistive technologies for self-help skills:
Kyle enjoys interactions with peers during lunch in the school cafeteria. Due to his motor difficulties, a teaching assistant feeds him. Further assessment and exploration of adapted eating utensils may facilitate more independence while eating.

Example indicating need to explore augmentative communication needs:
Susie, a kindergartener, responds to yes/no questions with appropriate headshakes. She indicates her wants and needs by pointing and gesturing in her environment. Susie needs an AT assessment to determine if she could benefit from an augmentative communication system to increase her ability to communicate with others.

3. Student's Current AT Is Effective

In some instances, the IEP team will determine that the present AT tools and materials are appropriate and that no further assessment is needed at this time. The Present Level of Academic and Functional Performance should indicate this conclusion and include in the Special Factors on the IEP AT devices and systems that have been discussed and determined as needed and effective for the student. This type of accommodation may also be listed in the Specially Designed Services section of the IEP. More information about this section may be found in the following.

Example indicating adequate consideration and inclusion of AT for writing difficulties:
Using a pencil grip, Julie is able to perform all written assignments in her first grade classroom.

Example indicating adequate consideration and inclusion of AT for auditory difficulties:
Angie has a severe hearing loss in both ears for which she wears hearing aids. She is able to adequately hear and understand general classroom lecture and discussion when wearing an FM system.

Example indicating adequate consideration and inclusion of AT for visual difficulties:
Bill is able to read eighth-grade-level text material when enlarged to 1 inch using a closed-captioned TV (CCTV).

Measurable Annual Goals

There is a direct correlation between the student's needs as identified in the data and required AT supports and services. The goals and objectives are defined by the needs identified in the Present Level of Academic Achievement and Functional Performance Goals; objectives should include:

- the tasks or skills the student is expected to achieve during the IEP period
- the specially designed instruction for the student
- an observable measure of proficiency

The objectives are the measurable steps that the student will perform to reach the goal. Remember, goals and objectives are measured skills that the student will achieve. If a goal/objective is stated in terms of what the paraprofessional or teacher will do, it is not written as a student performance task. (The assistance required by adults is a "service.")

1. Example of an objective that is NOT student performance:
Objective: The teaching assistant will check the operation of the FM system daily.

The following are examples of AT and modifications that may be included in the goals and objectives of the IEP.

2. Example for physical access:
Goal: Using his power wheelchair, Tom will independently maneuver around the school and classroom environments to get to classes within the allotted class change time of 5 minutes, being late no more than 5 times per week, by the end of second semester.

Objective: Using his power wheelchair and with verbal prompts as needed, Tom will maneuver around the school and classroom environments during class change and arrive at the next class within an 8-minute timeframe, by the end of the first semester.

3. Example for reading:
Goal: Using Braille text, Jeannie will independently read subject-matter assignments and answer 10 questions related the text content with 80% accuracy, by May 30.

Objective: By December 31, Jeannie will answer 3 out of 5 questions accurately as related to the text content with the use of Braille text. She may reference the text as needed to answer the questions.

4. Example for augmentative communication:
Goal: Sarah will produce 3-5 word sentences or phrases using her dynamic display communication device to participate in a three-turn conversational exchange at least once a day, 4 out of 5 days per week, by the end of the second nine weeks.

Objective: Using her dynamic display communication device, Sarah will initiate at least one social greeting with a classmate daily, by the end of the first nine weeks.

5. Example for reading goal:
Goal: Melissa will turn the pages of an electronic book using her switch and switch interface device. She will listen to the audio text on each page before advancing to the next page, in 8 out of 10 pages, by end of the school year.

Objective: With an audio "turn the page" prompt, Melissa will turn the pages of an electronic book using a switch and switch interface device and listen to the audio text on each page before advancing to the next page, in 4 out of 10 pages, by the end of the third nine weeks.

6. Example of an objective for written communication:
Goal: Jon will use an electronic graphic organizer to write an opening topic, a closing, and three supporting detail sentences to construct a five-sentence paragraph, by the end of the first semester.

Objective: Given five sentences in an electronic graphic organizer, Jon will identify and arrange the opening topic, the closing, and three supporting detail sentences to create a paragraph, by the end of the first six weeks of school.

7. Example of writing/spelling objective:

Goal: Carol will compose and submit a final product of a persuasive essay after completing evidence of all editing steps of the writing process and using a talking word processor with word prediction and spelling and

grammar check, with fewer than 10 errors in grammar and spelling, by the end of the school year.

Objective: Using a talking word processor with word prediction software, Carol will select a grammatically accurate word after identifying and typing the initial letter of the word to construct a paragraph with fewer than two errors, 4 out of 5 trials, by the end of December.

Description(s) of Specially Designed Services

The Description of Specially Designed Services section of the IEP includes any specially designed instruction, related services, AT, or accommodations that are necessary for the student to be able to achieve the goals and objectives set forth. While AT may be written into the goals and objectives of the IEP, it is often appropriate to include the AT in the Specially Designed Services section.

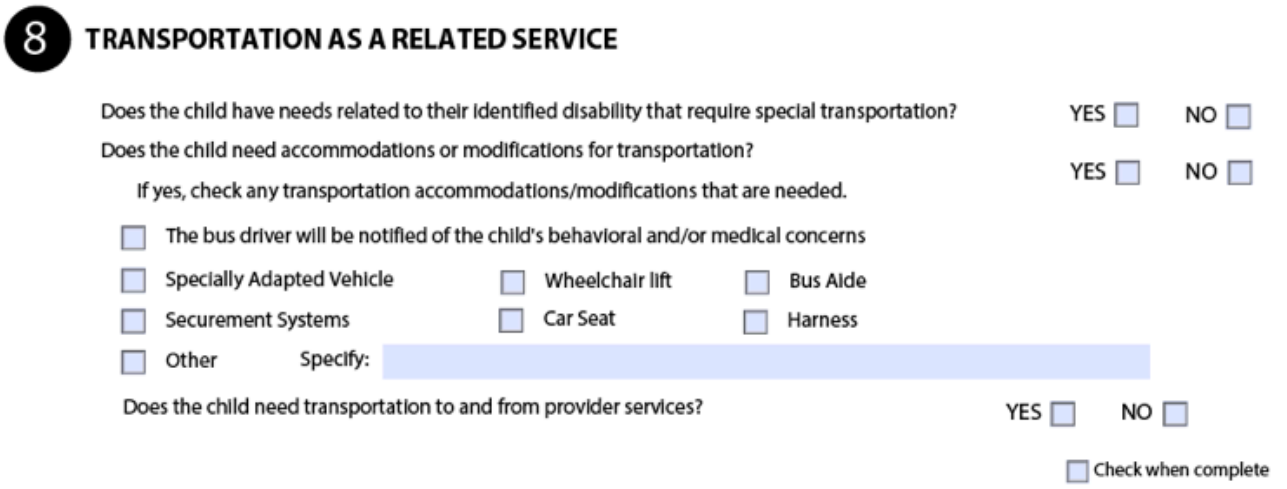
If the student requires a specific piece of technology or software, features of the technology or software should be described in the Description of Specially Designed Services section. The amount of time and frequency of related service providers to address the goal should also be included. Additionally, any training for the student and others for effective use of the device should be listed.

Following are examples of how AT may be documented in several areas of the Description of Specially Designed Services.

Type of Service	**Goal Addressed**
Assistive Technology: Dynamic display communication device with core and fringe vocabulary pages **Related Services:** Direct speech and language therapy in a small-group setting to provide modeling, prompting, expansion, shaping, and feedback for language skills using her augmentative communication system **Support for School Personnel:** Train teacher, parent, and paraprofessional to program device with relevant vocabulary	Sarah will use her dynamic display communication device to participate in a three-turn conversational exchange at least once a day, 4 out of 5 days per week, by the end of the second nine weeks.
Assistive Technology: Graphic organizer, electronic **Accommodations:** Graphic organizer provided for Jon when he needs to write a paragraph	Jon will use a graphic organizer to write an opening topic, a closing, and three supporting detail sentences to construct a five-sentence paragraph, by the end of the first semester.

Transportation as a Related Service

The Transportation section of the IEP addresses the needs the student might have related to special transportation due to a disability. Assistive technologies might be addressed in this area if the child has needs for a wheelchair lift, harnessing system, securement system, or other specialized AT devices that could impact safety and comfort during transportation. Some of these needs can be documented as a part of a check box acknowledgment found in the section; others might be written in as a description of needs. The following are excerpts from the annotated Ohio IEP form (EdResourcesOhio.org - Ohio Required Forms).



8 TRANSPORTATION AS A RELATED SERVICE

Does the child have needs related to their identified disability that require special transportation? YES ☐ NO ☐

Does the child need accommodations or modifications for transportation? YES ☐ NO ☐

If yes, check any transportation accommodations/modifications that are needed.

☐ The bus driver will be notified of the child's behavioral and/or medical concerns

☐ Specially Adapted Vehicle ☐ Wheelchair lift ☐ Bus Aide

☐ Securement Systems ☐ Car Seat ☐ Harness

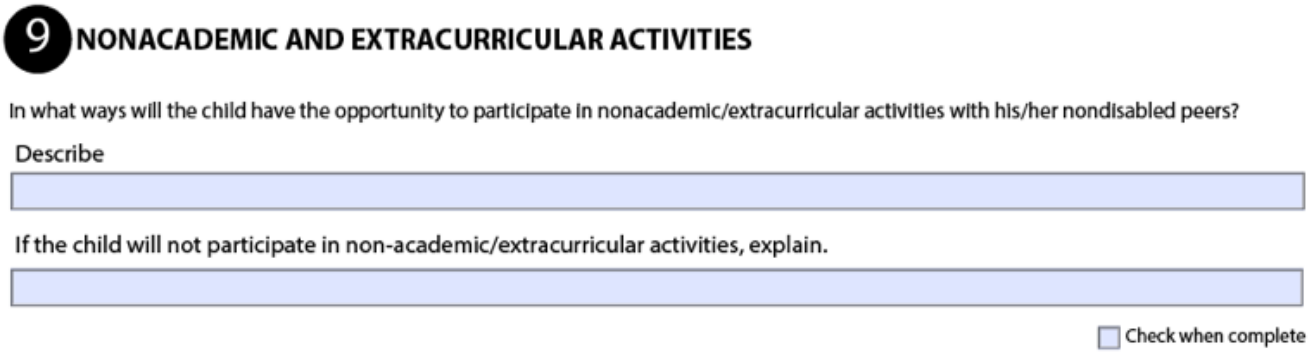
☐ Other Specify:

Does the child need transportation to and from provider services? YES ☐ NO ☐

☐ Check when complete

Nonacademic and Extracurricular Activities

The Nonacademic and Extracurricular Activities section of the IEP addresses supplementary aids and services necessary for a student to participate in athletics, clubs, special interest groups, recreational activities, counseling, health services, and employment services. AT may be included in this area if it is needed to access any of these activities and should be included as a written description.



9 NONACADEMIC AND EXTRACURRICULAR ACTIVITIES

In what ways will the child have the opportunity to participate in nonacademic/extracurricular activities with his/her nondisabled peers?

Describe

If the child will not participate in non-academic/extracurricular activities, explain.

☐ Check when complete

State- and Districtwide Testing

The IEP team must determine how a child with a disability will participate in state- and districtwide assessments. Some students participate in general assessments with allowable accommodations while others

participate in the alternate assessment.

IEP teams should use a decision-making framework to determine eligibility for the alternate assessment. The alternate assessment is designed to measure the knowledge and skills of students with significant cognitive disabilities based on modified achievement standards.

A child should be tested at the age-appropriate grade level. Students taking the assessments with allowable accommodations for statewide and district wide testing may use AT devices as outlined in the accommodations manual. While students may use a wide range of accommodations during routine instruction and assessment, not all of those accommodations may be used for statewide and district wide testing. The State Education Agency (SEA) outlines allowable accommodations.

12 STATEWIDE AND DISTRICT WIDE TESTING

For each subject tested in the child's grade, choose the method of assessment below. If "With Accommodations" is chosen for any subject, provide a description of the Accommodations for each subject in the right column.
Alternate Assessment, if chosen, must apply to all tests taken.

Will the child participate in classroom, district wide and state wide assessments with accommodations?	YES ☐	NO ☐
Is the child to be excused from the consequences of not passing the Ohio Graduation Test (OGT)?	YES ☐	NO ☐
Met Testing Participation Requirement?	YES ☐	NO ☐
Is the child participating in alternate assessment?	YES ☐	NO ☐

☐ Check when complete

Needed allowable accommodation per subject area should be documented in the student's IEP in the detail of accommodations in the State- and Districtwide Testing section. In addition, students should practice using their allowable accommodations as they complete formative and summative assessments in their classes.

Will the child participate in classroom, district wide and state wide assessments with accommodations? YES ☑ NO ☐

AREA	GRADE	CHILDREN WILL BE TESTED:	DETAIL OF ACCOMMODATIONS
READING		☐ WITH ACCOMMODATIONS ☐ MODIFIED ASSESSMENT	
WRITING		☐ WITH ACCOMMODATIONS ☐ MODIFIED ASSESSMENT	
MATH		☐ WITH ACCOMMODATIONS ☐ MODIFIED ASSESSMENT	
SCIENCE		☐ WITH ACCOMMODATIONS ☐ MODIFIED ASSESSMENT	
SOCIAL STUDIES		☐ WITH ACCOMMODATIONS ☐ MODIFIED ASSESSMENT	

Please see the Ohio allowable accommodations list at the following link in The Accommodation Manual-Selection, Use and Evaluation of Accommodations That Support Instruction and Assessment of Children with Disabilities.

Children With Visual Impairments

The Children With Visual Impairments section is only completed if the student has an eligible visual impairment as defined by the IDEA. This section includes a checklist of AT devices and services that might be needed for a student with visual impairments, including appropriate instructional media such as Braille, large print, and tape/auditory formats. Additionally, AT devices needed to access these alternate formats of text-based materials should be documented in other sections of the IEP as appropriate.

15 CHILDREN WITH VISUAL IMPAIRMENTS

This form shall be completed during the IEP meeting for each child who has a visual impairment, as defined by Ohio's Amended Substitute House Bill Number 164, which requires a statement specifying one or more reading and writing media in which instruction is appropriate to meet the child's educational needs. **A copy of this completed form is part of, and must be attached to, the child's IEP form.**

1.Annual assessment of reading and writing skills was conducted with each child in all media considered appropriate. The results of these assessments are included in "Present Levels of Academic Achievement and Functional Performance" on the IEP and indicate both strengths and weaknesses.	YES ☐	NO ☐
2.The IEP contains a requirement for instruction in Braille reading and writing when that medium is appropriate and is indicated by adding "Standard English Braille" as a special service in Section 7.	YES ☐	NO ☐
3.Instruction in Braille reading and writing was carefully considered for this child and pertinent literature describing the educational benefits of instruction in Braille reading and writing was reviewed by the persons developing this child's IEP.	YES ☐	NO ☐
4.The following visual condition(s) was taken into account and discussed in making the above decision:	YES ☐	NO ☐
Condition is degenerative and progressive loss is expected.	YES ☐	NO ☐
Condition is currently unpredictable in nature and will be reviewed if change in visual condition is noted.	YES ☐	NO ☐
Condition is temporary and expected to improve.	YES ☐	NO ☐
Condition is stable and will be monitored.	YES ☐	NO ☐
5.Indicate the appropriate instructional media		
Standard English Braille	YES ☐	NO ☐
Large Print	YES ☐	NO ☐
Regular Print	YES ☐	NO ☐
Tape/auditory	YES ☐	NO ☐
Pre-reader	YES ☐	NO ☐
6.Complete if Braille reading and writing **ARE** appropriate at this time		
Annual goals provided	YES ☐	NO ☐
Short-term objectives provided	YES ☐	NO ☐
Date of initiation indicated	YES ☐	NO ☐
Frequency and duration of instructional sessions indicated	YES ☐	NO ☐
Level of competency to be achieved annually indicated	YES ☐	NO ☐
Objective determinants used to measure achievement provided	YES ☐	NO ☐
7.Reasons Braille reading and writing **ARE NOT** appropriate this time		
Documented visual acuity allowing the choice of larger type/regular type	YES ☐	NO ☐
Child is considered a pre-reader	YES ☐	NO ☐
Other	YES ☐	NO ☐

Summary

Documenting AT devices and services into the IEP can be challenging As there seems to be no single location in the document where AT devices and services should be documented. Instead, the IEP document provides several locations where AT can be included based upon the purpose of the AT, the needs of the student, and, in some cases, the educational disability category. In this section, the various areas of the IEP where AT might be included were discussed along with reasons why those areas might be selected by the IEP team. It was noted that AT needs to be written into the IEP in such a way that it provides a clear and complete description of the devices and services needed by the student and shows how the tools support achievement of goals and progress in the general education curriculum. Examples were provided of goals and objectives that include AT supports.

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Appendix A

Assistive Technology Assessment Guides

2013

Student Information

Student Information

Name _____ Date of Birth _____

Parent /Guardian _____

Address _____

_____

Telephone _____

Email _____

Disability (check all that apply)

☐ Speech/Language ☐ Learning Disability ☐ Developmental Disability

☐ Multiple Disability ☐ Hearing Impairment ☐ Vision Impairment

☐ Orthopedic Disability ☐ Autism ☐ Traumatic Brain Injury

☐ Other Health Impaired ☐ Other _____

Program Placement _____

Level: ☐ Early Childhood ☐ Elementary ☐ Middle/Junior High

☐ High School ☐ Transition to Postsecondary

Grade Placement _____

Classroom Placement

☐ General Ed. Classroom

☐ with instructional support (aide)

☐ Supplemental Services

☐ Individual/Small-Group Instruction

☐ Special Class Learning Center

☐ Separate Facility: _____

☐ Home Instruction

☐ Approved Private School on a Residential Basis

Extent of Participation in General Education Programming _____

_____

_____

Related Services Currently Receiving

☐ Occupational Therapy ☐ Physical Therapy ☐ Speech/Language

☐ Other _____

School District of Residence _____

County _____

School/Building Attending _____

School Address _____

Telephone _____

Medical Considerations

Diagnosis (primary and secondary) _____

Medical Concerns _____

Medical Prognosis _____

Current Medications _____

Health Insurance Company _____

Medicaid: Number _____

Vocational Services (if applicable)

Training Program _____ Location _____

Place of Employment _____ Location _____

Job Description _____

Supported Services _____

Case Manager _____ Telephone _____

Residential Setting

☐ Home, Living With _____

☐ Nursing Home ☐ Residential Facility ☐ Group Home

Community Involvement Activities _____

Cognitive Level of Functioning

Psychological Testing Completed By _____

Date _____

Statement of level of functioning and/or behaviors that indicate level.

_____

_____

Behaviors

Describe student's behavior or attention as it applies to the current need.

_____

_____

Experience with Assistive Technologies

Currently Used Technologies (check all that apply)

☐ Communication Boards ☐ Voice-Output Communication Device

☐ Computer: Platform _____

including: ☐ Voice Output ☐ Screen Enlargement ☐ Braille Output

☐ Low-Vision Aids ☐ Amplification Systems

☐ Manual Wheelchair ☐ Power Wheelchair

☐ Environmental Control Units ☐ Writing Aids

☐ Other: _____

Previously Used/Tried Technologies

Assistive Technology	Length of Use	Results

What information do you hope to gain from this assessment? _____

_____

Select the best statements from those below about what you want assistive technology to do for this student. Then complete the appropriate assessment data-gathering pages.

☐ Provide or augment verbal communication

☐ Provide or augment written communication

☐ Assist with reading text material

☐ Alter visual materials

☐ Assist with hearing

☐ Provide appropriate seating

☐ Provide for assisted mobility

☐ Provide for computer access

☐ Other: _____

Person Completing This Form _____

Relationship to Student _____

Auditory

Student _____ Date _____

Completed by _____ Position _____

Current Abilities

Auditory Acuity:

☐ Normal acuity ☐ Normal middle-ear functioning

☐ Unable to test

☐ Identified hearing loss: ☐ right ear severity: _____

☐ left ear severity: _____

Onset of hearing loss: _____ Etiology _____

Date of last audiological exam: _____ (attach)

Report indicates: (include SRT, discrimination ability) _____

_____

If acuity is not measured, describe behaviors that indicate level of hearing:

Amplification Being Used: Level of Effectiveness:

☐ None _____

☐ Hearing aids: ☐ right _____

☐ left _____

☐ FM system _____

☐ Sound field system _____

☐ Other _____ _____

Auditory Abilities:

☐ Attends to sounds: ☐ high pitch ☐ low pitch ☐ voices ☐ background noises

☐ Discriminates environmental vs. non-environmental sounds

☐ Turns head toward sound

☐ Hears some speech sounds

☐ Understands synthesized speech

Eye Control and Attention to Communication:

☐ poor ☐ inconsistent ☐ limited ☐ good ☐ excellent

Understands Communication Via Which Modes:

☐ speech ☐ lip-reading ☐ signing ☐ required interpreter

☐ written ☐ gestures/body language ☐ environmental cues

☐ other: _____

Describe efficiency: _____

_____

Expressive Communication Via Which Modes:

☐ speech ☐ signing: (type) _____

☐ written ☐ gestures/body language ☐ picture cues

☐ other: _____

Describe efficiency: _____

_____

☐ further receptive/expressive communication information is needed

☐ further pragmatic communication information is needed

Auditory Concerns Impact:

☐ reading ☐ writing ☐ access to instructional materials

☐ ability to gain information in classroom instruction ☐ discussion

☐ speech ☐ vocabulary/language ☐ daily living activities

☐ use of communication system ☐ receptive/expressive discrepancies

☐ computer access

☐ other: _____

Discussion of Auditory Abilities: _____

_____

_____

Vision

Student _____

Date _____

Completed By _____

Position _____

Current Abilities

Diagnosed Visual Disorder: _____

Date of Last Vision Report: _____ (attach)

Report Indicates: _____

_____

Visual Acuity:

☐ acuity normal, based on school screening

☐ wears glasses

☐ acuity cannot be corrected

☐ vision uncertain

If acuity is not measured, describe behaviors that indicate level of vision:

_____

_____

_____

Functional Vision Skills

☐ localizes objects ☐ adequate visual scanning ☐ able to track objects

☐ recognizes persons ☐ recognizes objects

☐ attends to actions in environment

☐ vision interferes with daily living activities

☐ vision interferes with mobility

Visual Abilities:

☐ can read standard text print ☐ text must be enlarged: _____

☐ requires special lighting

☐ requires materials at an angle: _____

☐ recognizes photos ☐ recognizes line drawings

at what size: _____

☐ recognizes letters at _____ pt. on computer screen

☐ recognizes single letters ☐ recognizes letters in words

☐ recognizes words ☐ recognizes words in connected form

☐ Prefers: ☐ black letters on white ☐ white on black ☐ other _____

☐ tilts head when reading

☐ uses only one eye: ☐ right ☐ left

☐ cannot read text ☐ requires taped material

☐ requires Braille instruction

Visual Adaptations Currently Utilized: Level of Proficiency:

- ☐ Enlarged text material _____
- ☐ CCTV _____
- ☐ Handheld magnification _____
- ☐ Screen access software _____
- ☐ Speech synthesizer _____
- ☐ Screen enlargement _____
- ☐ Brailler _____
- ☐ Braille 'N Print _____
- ☐ Brailler 'N Speak _____
- ☐ Brailled textbooks _____
- ☐ Highlighting _____
- ☐ Taped instruction _____
- ☐ Text-to-speech software _____
- ☐ Other:

_____ _____

_____ _____

_____ _____

_____ _____

Visual Concerns Impact:

☐ reading ☐ writing ☐ access to instructional materials

☐ mobility ☐ daily living activities

☐ use of communication system ☐ computer access

☐ other: _____

Discussion of Visual Concerns _____

_____

_____

Seating and Positioning

Student _____

Date _____

Completed By _____

Position _____

NOTE: *Appropriate seating and positioning may affect a student's educational performance. Completion of this section may require input from physical and/or occupational therapists.*

Current Abilities

Current Seating and Positioning: (Check all that apply)

☐ Sits in regular chair with feet on floor

☐ Sits in regular chair with pelvic belt or footrest

☐ Sits in adapted chair ☐ Needs adapted chair

☐ Sits in wheelchair part of the day ☐ Sits in wheelchair most of the day

☐ Wheelchair needs to be adapted to fit

☐ Wheelchair is in process of being adapted to fit

☐ Spends part of the day out of chair due to prescribed positions

☐ Spends part of the day out of chair due to discomfort

☐ Enjoys many positions during the day based on activity

☐ Has limited opportunities for other positions

☐ Alternate positions include: ☐ standing frame ☐ side lying ☐ tumbleform chair

☐ beanbag chair ☐ floor mats ☐ other: _____

☐ Uses regular desk

☐ Uses adapted desk with height adjustment

☐ Use tray on wheelchair for desktop

☐ Uses adapted table

☐ Desktop space is not available

☐ Desktop space not required at this time

Description of seating:

☐ Seating provides trunk support

☐ Seating allows feet to be on floor or foot rest

☐ Seating provides 90/90/90 degree position

☐ Concerns about student's seating is noted

☐ Has difficulty using table or desk

☐ Has difficulty achieving head control

☐ Fatigue is a concern in relation to seating/positioning

Discussion on seating and positioning as it relates to educational performance:

_____

_____

_____

Mobility

Student _____ Date _____

Completed By _____ Position _____

NOTE: *Input on mobility may be required from an occupational or physical therapist or mobility specialist.*

Current Abilities

Mobility: (check all that apply)

☐ Walks independently ☐ Walks, with unusually gait

☐ Walks with assistance ☐ Walks with appliance

☐ Needs extra time to reach destination

☐ Uses manual chair independently ☐ Is pushed in manual wheelchair

☐ Has potential to use power wheelchair, but has not had opportunity

☐ Uses power wheelchair independently

☐ Learning to use power wheelchair

☐ Requires supervision when using power wheelchair

☐ Uses mobility device to get around environment

☐ Transfers independently ☐ Assists in transfers

☐ Bears weight during transfer ☐ Requires total assist in transfer

☐ Has difficulty walking up and down stairs

☐ Fatigues easily when walking distances

☐ Visual concerns make independent mobility difficult

Concerns about mobility:

☐ Fatigue prohibits student from necessary mobility

☐ Seems to have more difficulty than in the past

☐ Complains of pain/discomfort

☐ Change in schedule requires more time for travel

☐ Change in location/building has created challenges to getting around

☐ Transition to new school requires consideration of mobility needs

Discussion of mobility issues: _____

_____

_____

Motor Access

Student _____

Date _____

Completed by _____

Position _____

NOTE: Motor access abilities are noted for use of a computer or communication device. Input from an occupational therapist or a person familiar with access devices may be required to complete this section. (Direct selection is always the most desirable mode. However, if this is not possible, a controlled switch site should be explored.)

Current Abilities

Fine-Motor Abilities:

Voluntary, isolated, controlled movement is possible with:

☐ left hand	☐ right hand	☐ eyes
☐ left arm	☐ right arm	☐ head
☐ left leg	☐ right leg	☐ mouth
☐ left foot	☐ right foot	☐ tongue

☐ fingers on left hand: _____

☐ fingers on right hand: _____

☐ other: _____

Activities where movements were noted: _____

_____

Preferred mode of access at this time: _____

☐ adequate ☐ further evaluation is needed

Range of motion: _____

☐ small (1-4 inches) ☐ medium (5-9 inches) ☐ large (10-14 inches)

Describe range where most motor control is noted: _____

_____

Abnormal reflexes and muscle tone: ☐ yes ☐ no

Describe reflexes and tone that interfere with access: _____

_____

Accuracy: ☐ good ☐ fair ☐ poor

Describe reliability and consistency in performing motor tasks: _____

_____

Fatigue: ☐ not a factor ☐ minor concern ☐ significant concern

Describe fatigue in motor tasks: _____

_____

Assisted Direct Selection: ☐ not needed

Types of assistance that have been tried _____

☐ keyguard ☐ head pointer

☐ hand pointers/splints ☐ chin pointer

☐ other: _____

Which worked? _____

☐ Further assessment is needed

Size of grid:

Smallest key space student can accurately access:

☐ 1/2 inch ☐ 1 inch ☐ 2 inch ☐ 3 inch ☐ 4 inch

Optimal grid size:

number of key spaces per page: _____

number of spaces across: _____

number of spaces down: _____

Scanning: ☐ will need ☐ not needed ☐ further assessment is needed

Preferred control body site: _____

Other possible sites: _____

Type of switch:

☐ touch ☐ light touch ☐ wobble ☐ rocker

☐ joystick ☐ lever ☐ head switch ☐ sip/puff

☐ other: _____

Discussion of access concerns: _____

_____

_____

Academic

Student _____

Date _____

Completed By _____ Position _____

Other standardized and informal assessment should be completed as necessary to define the student's current academic functioning.

Current Abilities

Current Grade Level: _____

Special Education Instruction Provided:

☐ special class ☐ tutoring ☐ remedial instruction

☐ classroom instructional support ☐ educational aide in classroom

☐ other: _____

Prereading/Reading Level: _____

Reading Skills:

☐ recognizes pictures

☐ understands basic concepts

☐ demonstrates auditory discrimination of sounds

☐ selects initial letters of words

☐ applies letter/sound decoding skills

☐ demonstrates sight word recognition

☐ reads sentences

☐ comprehends what is read

☐ has difficulty with comprehension

☐ reads expected levels of subject matter material

☐ comprehends what is read to student

☐ currently has no functional reading skills

Reading modifications that are included in the classroom: _____

_____

_____

Spelling Level: _____

Spelling Skills:

☐ spelling is commensurate with reading ability

☐ spelling is significantly below reading level

☐ learns weekly spelling words by rote

☐ learns weekly spelling words through decoding

☐ applies spelling to daily activities

☐ currently has no functional spelling skills

Spelling modifications that are included in the classroom: _____

_____

Written Expression:

☐ does not write sentence forms ☐ writes simple sentence forms

☐ writes sentence forms appropriate for grade

☐ has difficulty writing on lines/given spaces

☐ not able to provide spacing between words

☐ letter formations are legible ☐ inadequate letter formations

☐ grammar errors noted ☐ punctuation errors noted

☐ writes acceptable paragraphs on given topic

☐ paragraph forms stray from topic

☐ overall paragraph content is lower than expectations

☐ difficulty transferring verbal into written forms

☐ currently has no functional writing skills

Written expression modifications that are included in the classroom: _____

_____

_____

Math Level: _____

Math Skills:

☐ skills at expected grade level ☐ skills at expected ability level

☐ knows addition/subtraction facts ☐ knows multiplication/division facts

☐ uses calculator for computation

☐ relies on manipulatives for computations

☐ understands story problems

☐ expected to participate in higher-level math skills

Math modifications that are included in the classroom: _____

_____

Classroom Organizational Skills:

☐ keeps materials organized ☐ comes prepared for class

☐ has difficulty organizing materials for classes

☐ assignments/homework frequently incomplete

☐ listens attentively in class

☐ frequently off task during instructional periods

☐ requires close supervision for completion of tasks

Classroom organizational modifications that are included in the classroom: _____

_____

_____

Written Communication

Student _____

Date _____

Completed By _____ Position _____

Current Abilities

Present Modes in Which Student Does Written Work:

☐ handwriting ☐ dictation ☐ keyboarding

☐ other: _____

Current Writing Ability (include writing sample)

Dominant hand: ☐ right ☐ left ☐ unsure

Pencil Grip: ☐ appropriate ☐ other: _____

☐ Does not hold pencil ☐ Prints ☐ preferred

☐ Holds pencil, but does not write ☐ Cursive ☐ Preferred

☐ Copies simple shapes ☐ Writes name

☐ Writing is illegible ☐ Writes words/sentences

☐ Writing limited due to fatigue ☐ Writes independently and legibly

☐ Writing is slow and difficult

Describe:

letter formations _____

size _____

spacing _____

Adaptations Used

☐ pencil grip ☐ splint/pencil holder ☐ special paper

☐ markers ☐ paper holder ☐ slant board

☐ other: _____

Related Concerns

☐ vision ☐ processing ☐ spelling ☐ fine motor

☐ other: _____

Describe: _____

_____

Current Keyboarding Ability

☐ Does not type ☐ Accidentally hits unwanted keys

☐ Types slowly ☐ Activates desired keys on command

☐ one hand ☐ two hands

☐ Types with one finger ☐ Requires arm/wrist support

☐ Types with 10 finger typing ☐ Unable to use regular keyboard

☐ Recognizes and locates letters

Alternate Keyboards Used

☐ None ☐ Enlarged keyboard

☐ Touch screen ☐ Switch access/scanning

☐ Keyboard with head or mouthstick

☐ Mini-keyboard ☐ Joystick access

☐ Other: _____

Keyboard Layout: ☐ QWERTY ☐ ABC ☐ Frequency of Use (FOU)

Other Adaptations: _____

_____

_____

Current Computer Use **Platform** _____

☐ Has never used a computer ☐ Uses computer at school

☐ Uses computer at home ☐ Uses computer for games

☐ Uses computer for word processing

Mouse Use

☐ External with hand

☐ Track pad ☐ Track ball

☐ Unable to use mouse

☐ Visually unable to track arrow

☐ Unable to click

Word Processing Skills

Uses functions:

☐ space ☐ delete ☐ return ☐ shift ☐ arrows

☐ save ☐ open/new ☐ highlighting

Text Size: ☐ Normal (12 point) ☐ Enlarged

☐ Further assessment of computer and keyboarding skills is needed.

Computer-Assisted Writing

Student _____ Date _____

Completed By _____ Position _____

Computer-assisted writing assessment should be completed by a team of individuals who are familiar with the scope of alternate access options.

Current Abilities

Keyboard:

☐ Regular ☐ Enlarged ☐ Mini

☐ Direct selection

☐ One hand ☐ Fingers used: _____

☐ Two hands: ☐ Single digit

☐ Two-handed keyboarding

☐ Assisted direct selection

☐ Hand pointer ☐ Head pointer ☐ Mouthstick

☐ Other: _____

☐ Keyguard required

Visual keys: ☐ Regular ☐ Zoom caps

Layout: ☐ QWERTY ☐ ABC ☐ Other _____

Key Sizes: _____ Key Spacing _____

Mouse Access: ☐ Regular ☐ Trackball ☐ Track pad

☐ Unable to use ☐ Other: _____

On-Screen Keyboard:

Access: ☐ Mouse ☐ Trackball ☐ Joystick

☐ Single switch/scanning ☐ Headpointing

Scanning Options:

Optimal control site: _____

Type of Switch: _____

Mounting Position: _____

Mode of Input: ☐ visual ☐ auditory

Mode of Scan: ☐ linear ☐ step

☐ row/column ☐ block/quadrant

Switch Activation: ☐ momentary ☐ sustained step

Layout: ☐ QWERTY ☐ ABC

Key Sizes: _____ Key Spacing _____

Word Processing:

Functions: is able to use:

☐ space ☐ delete ☐ return ☐ shift ☐ arrows

☐ save ☐ open/new ☐ highlighting

Text Size: Optimal _____ Minimal _____

Other concerns:

☐ Background color _____ ☐ Text color _____

☐ Text-to-speech _____

Word Prediction:

Reading ability _____

Spelling ability _____

Features:

Number of choices _____ Size _____

Arrangement: ☐ lower ☐ upper ☐ side

Scanning: ☐ visual ☐ auditory

Comparison of Word Processing/Word Prediction:

Speed: _____

Accuracy: _____

Computer Accessibility Issues:

Range of Motion:

☐ adequate ☐ limited to _____ inches

Seating and Positioning concerns:

☐ regular seating ☐ regular desk

☐ special desk ☐ special seating

☐ wheelchair: ☐ manual ☐ power ☐ mounting required

Portability:

☐ stationary ☐ multiple-site locations ☐ home use

☐ laptop ☐ desktop ☐ word processing keyboard

☐ independent ☐ in transport ☐ carrying case required

Durability: _____

_____

Dictation/Speech Recognition:

Speech:

☐ adequate intelligibility ☐ sound errors apparent

☐ adequate sentence structure ☐ reduced sentence forms

☐ adequate volume ☐ concerns: _____

☐ adequate breathe support ☐ concerns: _____

☐ adequate phonation ☐ concerns: _____

Vision:

☐ adequate at 12 point ☐ enlarged: _____

☐ adequate tracking ☐ concerns: _____

☐ adequate scanning ☐ concerns: _____

Reading/Spelling:

☐ adequate sight recognition ☐ concerns: _____

☐ adequate decoding ☐ concerns: _____

☐ recognizes errors ☐ concerns: _____

☐ corrects errors ☐ concerns: _____

Paragraph/Sentence Generation:

☐ formulates sentences ☐ recognizes sentence forms

☐ recognizes paragraph form ☐ maintains a topic

☐ uses capitalization ☐ uses punctuation

☐ uses new paragraph ☐ uses new line

Concerns: _____

Voice Recognition

☐ notes errors ☐ corrects errors: ☐ scratch that ☐ oops

☐ begin dictation ☐ stop dictation

☐ dictates without word interjections ☐ frequent interjections noted

Impressions _____

AAC Device Information

Name _____

Date of Evaluation _____

Evaluating Team Members _____

AAC device assessment should be obtained by a team of individuals who are familiar with device features and capabilities. Trial use is recommended.

Language Features	**Notations**
A. Representational Symbol Form	
☐ picture/symbols	
☐ black/white ☐ concrete	
☐ color ☐ abstract	
☐ alphabet/numbers	
☐ spoken choices (auditory scan)	
B. Vocabulary Encoding	
☐ levels/locations/pages	
☐ symbol sequencing	
C. Message Production	
☐ letters ☐ phrases	
☐ words ☐ sentences	
D. Vocabulary Expansion	
☐ preprogrammed	

☐ fully programmable

☐ combination

E. Rate Enhancement

☐ simple symbols selections/sequencing

☐ abbreviation expansion

☐ word prediction

☐ semantic encoding

☐ icon prediction

Selection Techniques and Strategies **Notations**

Input Technique

A. Direct Selection

☐ finger (which?) _____

☐ thumb

☐ fist

☐ Assisted direct selection

☐ joystick

☐ trackball

☐ infrared head pointing

B. Single Switch Scanning

Optimal controlled body site: _____

Type of switch: _____

Mount for switch _____

Mode of scan: ☐ visual ☐ auditory _____

Presentation of scan: ☐ linear ☐ step _____

☐ row column ☐ block/quadrant _____

Switch activation: ☐ momentary ☐ sustained _____

☐ step _____

C. Overlay or Keyboard Features

☐ membrane ☐ key _____

☐ single level overlay _____

☐ multiple overlays _____

☐ dynamic display _____

☐ overlay exchange _____

☐ independent _____

☐ with assistance _____

Range of Motion

☐ small <6" ☐ medium 6-14" ☐ large >14" _____

D. Overlay or Keyboard Features

Number of key spaces _____

(maximum /overlay)

Key sizes _____

(minimum possible)

Key spacing _____

☐ visual delineation

☐ keyguard

☐ alphabet layout

☐ ABC

☐ QWERTY

☐ viewing angle/mounting position

☐ moisture guard required

Device Construction **Notations**

Weight/Size Considerations

Durability: _____

Mounting Considerations

Wheelchair tubing size _____

☐ swing away ☐ rear mount

☐ desktop mount

☐ walker mount

Portability

☐ independent ☐ in transport ☐ stationary

☐ carry case required

Output Modes **Notations**

A. Speech Output

☐ digitized ☐ synthesized ☐ either ☐ both

☐ male ☐ female ☐ student _____

☐ high intelligibility required _____

☐ volume control required _____

☐ auditory prompts _____

B. Visual Display

☐ static ☐ dynamic _____

☐ liquid crystal display _____

☐ monochrome screen _____

☐ color screen _____

☐ active matrix _____

☐ print out capabilities _____

C. Integration with Other Technologies

☐ computer

type _____

☐ environmental control units _____

☐ telephone _____

☐ adaptations to wheelchair _____

Augmentative and Alternative Communication

Student _____ Date _____

Completed By _____ Position _____

Input from a speech-language pathologist should be obtained for completion of this section.

Current Abilities

Present Modes of Communication: (check all that apply)

☐ semi-intelligible speech ☐ single word utterances

☐ telegraphic word combinations ☐ intelligible speech

☐ facial expressions ☐ changes in body position or breathing pattern

☐ eye gaze ☐ vocalizations

☐ gestures ☐ pointing

☐ sign language ☐ sign language approximations

☐ reliable yes/no How? _____

☐ communication boards/pictures ☐ objects /tangibles

☐ writing

☐ AAC device: _____

☐ classroom device ☐ personal device

Primary Mode of Communication: _____

Prognosis for Speech: ☐ good ☐ guarded ☐ poor ☐ severely limited

Communication attempts are understood by:

	Most of the time	Part of the time	Rarely
Strangers	☐	☐	☐
Teachers	☐	☐	☐
Peers	☐	☐	☐
Parents	☐	☐	☐
Siblings	☐	☐	☐

Receptive Language Level:

Approximate age: _____ Test: _____

Estimated vocabulary understanding: _____

Or give description of behaviors that indicate level:

Expressive Language Level:

Approximate age: _____ Test: _____

Or give description of behaviors that indicate level _____

_____

_____

Ability to combine words/symbols to create novel messages: _____

_____

_____

Interactive Skills:

Student demonstrates a desire to communicate:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Initiates interactions:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Responds to communication interactions:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Interacts with peers:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Asks questions:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Attempts to repair communication breakdowns:

☐ always ☐ frequently ☐ occasionally ☐ seldom ☐ never

Communication Function Needs: (check modes of communication that are inadequate)

☐ gain attention ☐ respond to questions

☐ express basic needs/wants ☐ ask questions

☐ respond yes/no ☐ give information

☐ give personal information ☐ participate in classroom activities

☐ express feelings ☐ participate in community activities

☐ social rituals ☐ participate in vocational activities

☐ conversational interaction ☐ other: _____

Describe emotional status as it relates to communication:

_____

_____

Describe the individual's potential as an augmentative communicator:

_____

_____

Past history of AAC use: Include aided and unaided systems.

System	Length of Time	Results

Current Abilities Summary

Name _____ Date _____

Auditory Abilities: _____

Visual Abilities: _____

Seating and Positioning: _____

Mobility:

Academic Abilities:

Written Communication Abilities:

Augmentative and Alternative Communication Abilities:

Motor Access Abilities:

Appendix B

Forms and Checklists

2013

Local Funding Worksheet

The following form may be used to record and reference local agencies that may be contacted when seeking funding for AT.

Medicaid:

Description: Must be Medicaid eligible. Medicaid funds durable medical equipment and medically related services. Wheelchair applications must be completed through the vendor in conjunction with the student's physical therapist. Speech-generating device (SGD) applications must be made through an ASHA-certified speech-language pathologist and submitted by the vendor.

Contact: Initiate (family/individual) the Medicaid application for eligibility through the County Department of Job and Family Services.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Private Insurance:

Description: Private insurance refers to a contract between the individual/family and the insurance company. Medical insurance is based on the "medical necessity" of services and equipment. Private medical insurance may provide certain types of AT and AT services under three categories of funding: prosthesis, durable medical equipment, and therapy services.

Contact: Contact (family/individual) private insurance provider.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Bureau for Children With Medical Handicaps (BCMH):

Description: Offers diagnostic assessment for students under 21 years of age with a possible medical handicap. Treatment is based on financial eligibility.

Contact: County Health Department.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Family Support Services:

Description: Student eligibility determined by County Board of Developmental Disabilities. Amount of assistance monies varies.

Contact: Ohio Department of Developmental Disabilities Gateway.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Vocational Rehabilitation: Ohio Rehabilitation Service Commission and Bureau for the Visually Impaired:

Description: Eligibility possible when student reaches age 14 or a Transition Plan is initiated. Eligibility determined by VR counselor.

Contact: Regional vocational rehabilitation office.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Social Security:

Description: SSI and SSDI do not directly provide funding for AT; yet, qualifying individuals may access other services and work incentives. Eligibility for SSI or SSDI also brings eligibility for Medicaid and/or Medicare.

Contact: Click this link to learn about local Social Security offices: https://secure.ssa.gov/ICON/main.jsp

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Email: _____

Service Clubs and Organizations:

Description: Local groups such as the Lions, Sertoma, Shriners, Kiwanis, Rotary, churches, and sororities/ fraternities often fill the gap when human service delivery systems fall short.

Contact: Explore local community service organizations.

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

Agency _____

Address _____

Telephone _____ FAX _____

Contact Name _____

Description: _____

OCALI Consideration for Assistive Technology Checklist

Student Name _____ Date _____

Check an area in which there is concern about the student functioning as independently as possible. (If no concern, indicate "no" in the Special Considerations section of the IEP.)

☐ Academic

☐ reading ☐ writing ☐ math ☐ learning/studying

☐ Communication

☐ understanding language ☐ using language ☐ speaking clearly

☐ Access

☐ computer access ☐ mobility ☐ seating & positioning

☐ Environmental Control

☐ Activities of Daily Living

☐ play ☐ recreation/leisure ☐ self-care ☐ vocational

☐ Social Behavior

☐ following routines and rules ☐ making transitions ☐ staying on task

☐ Vision

☐ Hearing

☐ Other _____

1. **What specific task in the area identified above do we want this student to perform that he/she is unable to do because of his/her disability?**

2. **What current special strategies, accommodations or assistive technologies have been tried to enable the student to complete this task? How well have they worked? (Include in the Present Levels of Performance section of IEP.)**

"How well have they worked?"

3. **Are there continuing barriers when the student attempts this task? If so, describe. (Include in the Present Levels of Performance section of IEP.)**

4. **Are there new or additional assistive technologies to be tried to address continuing barriers? If so, describe. (Document in Services section of IEP.)**

5. **Is there a need for further investigation and/or assessment to determine assistive technology solutions? (Describe this plan and document in Services section of IEP.)**

Assessment Summary of Student Need for Assistive Technology

Name _____ Date _____

Use this form to analyze data and define the student's specific need for assistive technology.

STUDENT Area(s) of Need _____	
ENVIRONMENTS	TASKS
Specific Concerns/Needs: *What do we want the student to do?*	

Assessment for Assistive Technology Tool System

Name: _____ Date: _____

Area of Need: _____

Specific Tasks: State in terms of what the student is expected to do	**No-Low-High-Tech Tools Options/ Solutions and Features**	**Availability for Trial Use**	**Results**

Assistive Technology Solution Continuum

Student: _____ Date: _____

1. *Identify the area of student needs (e.g., handwriting, speech, reading) and generate a continuum of AT options, including no-tech, low-tech, and high-tech. Begin with the simplest, least intrusive solutions.*

2. *Discuss the suggested solutions and make conclusions on the effectiveness of this solution.*

Alternatives for:	Conclusions

Assistive Technology Technical Support Data

Student Name: _____

Equipment Name: _____

Serial Number: _____

Purchase Date: _____

Manufacturer: _____

Address: _____

_____

Telephone: _____

Vendor: _____

Address: _____

_____

Telephone: _____

Purchased By: _____

Warranty Information: (*maintain copy of original invoice)

Technical Support: _____

Telephone: _____

Training Received:

Date:	Provided By:	Provided To:

Person/Agency Responsible for Maintenance and Repair:

Service Record

Date	Problem	Result

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Assistive Technology Center