
SWAAAC Guidelines

2011



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History of SWAAAC

In the mid 1980's, twenty-five related service providers and educators, in collaboration with the Colorado Department of Education, developed and fostered a model of Assistive Technology (AT) service delivery. Their model combined professional development, technical assistance, a tiered intervention system and access to technology for trial through a statewide loan bank. The group adopted the name SWAAC (Statewide Augmentative Alternative Communication). These SWAAC members traveled to schools, completed evaluations, and made recommendations to IEP teams for implementation.

With rapid advances in technology options, the name SWAAC was modified in the early 1990's and an additional A was added. The acronym now represented Statewide, Assistive technology, Augmentative Alternative Communication (SWAAAC) teams.

Over the past twenty years, this initial group of twenty-five has expanded to over 700. Currently, 460 educational professionals (occupational and physical therapists, speech language pathologists, educators, psychologists, regular and special education teachers, nurses, etc) are identified as assistive technology service providers in Colorado schools. These individuals form district level multidisciplinary teams led by 63 team coordinators. The team coordinators serve as the primary interface with the state office and have storefront access to the loan library of AT devices, software and resources.

Utilizing established university infrastructure, the SWAAAC project provides a wide variety of cost effective, readily accessible support services. Those services are delivered via the Interlibrary Consortium, phone and email, a regularly updated website, a yahoo discussion forum, regular telephone conferencing, WebEx meetings, tele-rehabilitation, AHEC distance training, and on-site training and consultation at the three Assistive Technology Partner offices (Denver, Colorado Springs and Grand Junction). The ability of the project to capitalize on university infrastructure allows the project to reach out to all corners of the state and provide high quality professional development and just-in-time support services.

What is Assistive Technology (AT)?

Take a quick look around your community and you will most likely notice someone using assistive technology. If you see an individual using enlarged print, a talking watch or a cane, you have identified someone using assistive technology. Assistive Technology (AT) is everywhere. Historically, we've all thought of assistive technology as something computerized and very expensive. However, assistive technology devices range from very inexpensive, low-tech items to more expensive, high technology devices.

Assistive technology is any tool allowing individuals with disabilities to use their own unique abilities to reach their goals. These tools are typically used by people who need to access education, employment, recreation, communication, and activities of daily living as independently as possible.



Assistive technology devices range from simple, *low technology* devices like this Time Timer (above) to sophisticated *high technology* devices like this electronic Augmentative Alternative Communication (AAC) system (to the right).



What are common assistive technology devices?

According to the AbleData database of assistive technology, there is close to 40,000 commercially available assistive technology devices on the market. So, how do we keep it all straight? For this discussion, we have divided assistive technology devices into a series of categories listed below:

- **Positioning** - It is often necessary to design positioning systems for a variety of settings within a school so that a student can participate in all activities. Bolsters, wedges and adapted seating are examples of items that are used for positioning. Proper positioning may increase motor movements and can help provide a student access to the curriculum.

- **Access** - Some students require special devices that provide access to curriculum, computers and/or other equipment. Eye blinks, head or neck movements, hand or foot movements may be used to operate switches which provide access to the computer. In addition to switches, alternative keyboards, adapted mice, trackballs, joysticks, touch screens or voice recognition software can be used for access. These methods may also apply to other systems including power mobility, voice output communication aids, and electronic aids for daily living (EADL's).



- **Environmental Control** - Independent use of equipment and control of objects in the classroom can be achieved for students with all types of disabilities through various environmental controls, including remote controls, switches and special adaptations of on/off switches to make them accessible (e.g. Velcro attachments, pointer sticks, etc...).

Electronic Aids for Daily Living (EADL's) that can turn lights on and off, open doors, and operate appliances are also examples.

- **Augmentative/Alternative Communication** - Students who are nonverbal or whose speech is unintelligible may benefit from using communication devices such as picture cards, communication boards, low-tech devices with a few recorded messages and/or voice output communication aids with digitized or synthesized speech.



- **Hearing** - Assistive listening devices help to alleviate hearing and auditory processing problems. They include hearing aids, personal FM units, sound field amplification systems and closed caption TV. Telecommunication devices for the deaf include teletypewriters and other devices for telephones in which speaking and/or hearing is not required for communication.

- **Vision** - Visual aids include increasing contrast, enlarging stimuli and using tactile and auditory models. Devices that assist with vision include screen readers, screen enlargers, magnifiers, large-print books, taped books, Braille, light boxes, thermoform graphics, speech synthesizers and scanners. Navigation and orientation systems give people with vision impairments information about their location and possible obstacles to safe travel. Students with hearing and/or vision impairment may be eligible for AT supports through the Colorado School for the Deaf and Blind (CSDB) equipment loan library.
- **Mobility** - Individuals whose physical impairments limit their mobility may need devices to help them move within the school building and participate in activities. Mobility devices include such items as walkers, manual or power wheelchairs and scooters.
- **Cognition/Learning** – Technology for cognition and learning can allow for increased participation in activities related to the curriculum. Software can reflect the general curriculum, and offer an alternative way of responding to learning activities. Software can provide tools for written expression, spelling, calculation, reading, basic reasoning and higher level thinking skills. The computer can also be used to access many resources via the Internet where access is available. Modifications for individual student access may be required.



There are also a variety of low-tech assistive technology options to support cognition and learning. Providing picture support in the classroom can help to increase comprehension of curricular content for some students. The use of a Time Timer or the Time Tracker Visual Timer can provide students with a visual cue when participating in a timed activity. A digital voice recorder or smartpen can be used to record content shared in the classroom. Other types of assistive technology can read electronic books out loud to a student such as, the VictorReader WAVE or the Classmate Reader. Depending on the goals of the student and the need to access the curriculum, there are multiple types of technology that can help support students in the classroom.

- **Social Interaction and Recreation** - Students with disabilities typically want to interact socially with their peers. Access to communication and assistive technology can help them to participate in recreational activities with friends. Some activities

include drawing software, computer games, painting with head or mouth sticks, interactive books, sports and adapted puzzles or games.

- **Self Care** - In order to benefit from education, some students require assistance with self-care activities like feeding, dressing, and toileting. Assistive devices, which may facilitate self-care, include such things as adapted utensils, specially designed toilet seats, and aids for tooth brushing, washing, dressing and grooming.

Assistive Technology and State and Federal Regulations

There are several laws that define and determine the educational and civil rights of persons who require assistive technology. These include Part B of the Individual with Disabilities Education Act (IDEA); the Americans with Disabilities Act (ADA); and Section 504 of the Rehabilitation Act.

What does the Individuals with Disabilities Act (IDEA) say about assistive technology?

Assistive Technology Device [34CFR 300.5] is defined in IDEA as:

The term **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 functional capabilities of children with disabilities. The term does not include a medical device that is surgically implanted, or the replacement of such device.

Assistive Technology Service [34CFR 300.6] is defined in IDEA as:

The term **assistive technology service** means any service that directly assists a child with a disability in the selection, acquisition, or use of an Assistive Technology (AT) device. The term includes -

- (a) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
- (b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
- (c) Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing assistive technology devices;
- (d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- (e) Training or technical assistance for a child with a disability or, if appropriate, that child's family; and
- (f) 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 child.

For more information visit: <http://idea.ed.gov/>

What does the American with Disabilities Act (ADA) say about assistive technology?

The Americans with Disability Act (ADA) is a civil rights statute passed in 1990 to protect the rights of persons with disabilities in school, work, and recreation. Title II of the ADA covers state and local government services. It prohibits discrimination against qualified individuals in the services, programs, or activities of public entities, such as public school systems and publicly operated preschool programs.

Regulations of Title II of the ADA state that “No qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of a public entity, or be subjected to discrimination by the public entity.” [28 CFR 35.130(a)]

Aids, benefits and services provided to children with disabilities must be equal to those afforded to others and must be as effective in affording equal opportunity to obtain the same result, to gain the same benefit, or to reach the same level of achievement.

In order to comply with Title II, school systems may be required to make reasonable modifications in policies, practices, and procedures or to provide “auxiliary aids and services” to the student with a disability. [28 CFR 35.130(b)(7)] These include assistive technology devices such as digital voice recorders, computers, and listening devices. In addition, the terminology includes assistive technology services, such as the acquisition or modification of equipment. [28 CFR 35.104]

Title III of the ADA prohibits places of public accommodation (privately owned entities) from discriminating against persons with disabilities. Title III requires public accommodations to make reasonable modifications in policies, practices and procedures that would afford individuals with disabilities an opportunity to participate in and benefit from the goods and services of the public accommodation. Title III covers private schools and day care programs. “Auxiliary aids and services” may be required if appropriate and entities must eliminate architectural barriers that are readily achievable to remove. [28 CFR 36.304]

For more information visit: <http://www.ada.gov/>

What does Section 504 of the Rehabilitation Act say about assistive technology?

Some children have impairments but do not need special education and therefore they do not meet eligibility requirements under the IDEA. Services, however, may be provided under Section 504 of the Rehabilitation Act. Section 504 of the Rehabilitation Act of 1973 is a civil rights statute that prohibits agencies and programs which receive federal funds from discriminating against individuals with disabilities. Under Section 504 an individual with a disability is defined as a person who:

- (i) has a physical or mental impairment which substantially limits one or more major life activities,
- (ii) has a record of such an impairment, or
- (iii) is regarded as having such an impairment. [29 U.S.C. 706(8)(B)]

Major life activities include such items as walking, sleeping, seeing, hearing, learning, caring for one's self, performing manual tasks, speaking, breathing, and working. Some children who are not eligible for special education services may be able to receive services under the protection of Section 504 of ADA.

Since public preschools, elementary and secondary schools are federally funded, they must provide students with disabilities a Free Appropriate Public Education and ensure that students are afforded an equal opportunity to participate in all academic and extracurricular school programs.

Schools may have to make special accommodations, including the provision of assistive technology devices and/or services, to allow students with disabilities to have access to the full range of programs and activities.

For more information visit: <http://www2.ed.gov/about/offices/list/ocr/504faq.html>

The SWAAAC Model

The SWAAAC model has been evolving since its inception; teams have grown and developed service delivery models, and their own unique policies, practices and procedures. SWAAAC teams are typically multi-disciplinary in order to provide comprehensive evaluations. Service providers from a student's school may be enlisted as part of the evaluation team if the SWAAAC team feels that a particular kind of expertise is needed, e.g. the student has a visual impairment and the SWAAAC team does not have a vision specialist. As a result of an Assistive Technology (AT) evaluation, suggestions will be provided to the IEP team regarding a student's need to use assistive technology to gain reasonable benefit from education. If the IEP team determines that AT is necessary for a student, the SWAAAC team may assist with the funding process and facilitate training for staff, parents and students as needed.

Depending upon the individual SWAAAC teams model of service delivery, a SWAAAC member may serve as a resource to the school staff, parents and students by seeing the student on a regular basis for consultation, continuing training, developing an array of accommodations, troubleshooting, etc. If the student is not seen on a regular basis, the team may still be available to serve as a resource upon request from the school, student or parent.

In some districts, there may be SWAAAC team members whose entire job is assistive technology; they need to be contacted through the referral process in order to participate in IEP development or to be available as a consultant. In other districts, AT services are provided by the school team. SWAAAC teams may need to be available in these situations to provide consultation via phone or email and to help school personnel develop training opportunities.

In the area of assistive technology, schools are faced with building staff capacity to deal with a broad continuum of needs for students, including those with mild and moderate disabilities, to those identified with the most limiting cognitive, physical and/or sensory disabilities. These students' educational environments are also as varied as the students themselves. Full inclusion, resource rooms, self-contained classrooms, and community based work settings are some examples of the educational environments in which students spend all or part of their instructional day. Within these settings are the educational personnel that support them.

Providing the educational staff with the professional development required to maintain and increase proficiency is a continuous responsibility of school districts. SWAAAC teams can be of assistance even when they are not direct service providers. Teams can provide

consultative services within the classroom setting, working with special and general educators, related service providers and para-professionals. They can model how to facilitate communication and language development, teach the writing process, as well as the use of specific equipment and software for instructional purposes.

At the level of the administrative unit, SWAAAC teams can assist by conducting a needs assessment to identify potential training needs as well as individuals on staff who can be resources. Through in-service training, teams can provide information to staff on a variety of devices, software, etc. including ways that they can be used in the instructional process. SWAAAC teams need to be able to instruct staff on how to document assistive technology consideration as part of the IEP process, as well as how assistive technology should be documented in the IEP.

Recommended Competencies in the Area of Assistive Technology

The following competencies were presented to the NASDSE board. Subsequently they were distributed to each state education agency by NASDSE.

<http://www.cde.ca.gov/sp/se/sr/atstaff.asp>

Basic Knowledge of Assistive Technology (AT) Devices and Services

- Understand AT including legal requirements, its purpose and functional application for the student's educational program.
- Demonstrate awareness of a variety of assistive technology devices and services and the ability to integrate technology into educational programs.
- Demonstrate knowledge of specialty area of assistive technology (e.g., access, alternative/augmentative communication, computer-based instruction, mobility, positioning, assistive listening and signaling devices, vision technology, environmental control, and activities of daily living).
- Demonstrate the recognition of the need for ongoing individual professional development and maintaining knowledge of emerging technologies.

Collaboration and Communication

- Understand the multi-disciplinary nature of AT application and contribution of a variety of disciplines to the service delivery process.
- Understand skills required to serve as a member of a multi-disciplinary team providing services for assistive technology.
- Include parents as team members.
- Listen and respond to input from other team members and demonstrate effective group process skills.
- Utilize resources to meet technology needs for students with disabilities and know when and where to refer to other resources.

- Demonstrate the ability to network with others in the community, including parents and general educators for technical information and problem solving.

Assessment and Planning

- Identify appropriate, qualified team members necessary to determine AT needs and strengths.
- Determine, in collaboration with other members of the assessment team, assistive technology needs as part of a comprehensive multi-disciplinary evaluation which addresses all areas related to the disability and based on student's strengths, tasks, and expectations.
- Use appropriate data gathering procedures and strategies to conduct an assistive technology evaluation utilizing a team approach to assess the student in customary environments.
- Integrate and discuss, in collaboration with the multi-disciplinary team, all evaluation information including formulating recommendations and preparing a report.
- Develop an action plan utilizing appropriate, qualified team members, parents and school staff. Identify and design appropriate AT devices, services, and strategies in the plan.

Implementation

- Evaluate, measure, and report on the effectiveness of the plan. Modify the plan as required to meet the student's needs.
- Identify areas that require further assessment or reevaluation with the school team on an ongoing basis.

Resources

- Identify, in collaboration with team members, assistive technology resources at the classroom, building, district, region, community, state and national level: funding products i.e., augmentative communication, computer access, print and electronic resources, i.e., books, web sites, journals, listservs, human resources, i.e., individuals who can provide, training, customization, problem solving, maintenance and repair.

- Recognize own scope of knowledge and skills and utilize identified resources to augment knowledge and skills represented within the team.
- Serve as a resource for others. Identify staff development needs and opportunities that meet needs. Participate in staff development opportunities that address identified needs.

SWAAAC Loan Bank

Every five years the district or BOCES SWAAAC team coordinator and special education director must sign the following team agreement/loan bank policies in order to maintain access to the loan bank. The document must be signed and returned to the Central SWAAAC Office anytime there is a change in team coordinator or special education director.

SWAAAC Team Agreement & Loan Bank Policies (updated August 5, 2010)

- The district SWAAAC team is responsible for providing data throughout the school year detailing IEP and Assistive Technology (AT) information.
- The Special Education Director has designated a district Team Coordinator who will be responsible for the use of the Loan Bank, attend Team Coordinator meetings and submit requested data/documentation.
- The Team Coordinator will submit a complete, accurate directory of all district SWAAAC team members at team coordinators' meetings in the fall and spring.
- The Team Coordinator will promptly notify the SWAAAC office in the event of Team Coordinator/Special Education Director personnel changes.
- For the purposes of quality assurance, all SWAAAC team members are required to document continuing education in the field of Assistive Technology including district representation at trainings sponsored by SWAAAC and the CDE as well as other assistive technology trainings they attend.
- The Team Coordinator and Special Education Director have read and understand the loan bank policies and procedures. The Team Coordinator will ensure that team members abide by the following:

Loan Bank Policies and Procedures

The purpose of the Loan Bank is to provide individuals with access to equipment for evaluation and trial purposes. The purchaser, whether it is a third party payer, a school district or a parent, needs to have some indication of whether the purchase and use of the technology will be beneficial to the individual. Equipment may also be used by SWAAAC team members who may need to learn to use it in order to serve a student. The loan bank is not intended for long-term use. At this point, we do not have funding to provide individuals with equipment for personal use.

- Equipment may be borrowed for six weeks (1 week for delivery and 1 week for return).
- A one time, two-week extension may be available if no one is waiting for the device. If a student needs the equipment for long term use, it is important to do everything possible to purchase the equipment.
- Requests for equipment must come from a SWAAAC Team Coordinator via the online storefront” at www.swaaac.com. All requests will be honored on a first come, first serve basis. If you are having difficulty using the online resource, please contact Sarah Barthel, sarah.barthel@ucdenver.edu, 303-315-1276.
- Please include all components that are needed on a single request. For example, include a communication device and a switch access kit if the individual is not able to access the equipment directly.
- Software may be installed on ONE computer at a time during the loan period. Prior to returning the software, it MUST be uninstalled. The borrower is liable for license violations if they do not uninstall it.
- Equipment MUST be returned on or before the due date. Please confirm prior to shipping that all parts (i.e. adapters, power strips, manuals) are present and in good working order and are in the original shipping container with all packing materials (Refer to the contents list included in the box).
- All team members understand equipment will be returned clean and in good working order and will immediately contact a SWAAAC office representative if equipment fails to operate or if items are missing from the content list.
- Organizations with overdue items will not be allowed to borrow additional equipment until the overdue items are returned.
- Should a device break during a loan period due to anything other than normal wear and tear, repair costs become the financial responsibility of the borrower (i.e. school district).
- Lost equipment also becomes the financial responsibility of the borrower.
- If something is wrong with an item, you are welcome to call tech support to help troubleshoot. However, if any actual work needs to be done, you must return the item to the SWAAAC office at ATP.
- Team Coordinators (and in some cases, Special Ed. Directors) will be notified of overdue, missing, and damaged items.
- Borrowers are REQUIRED to complete the follow-up survey associated with each loan. This is sent via email after an item is returned and checked into the loan bank.
- Equipment MUST be insured for replacement value if returning by mail. We encourage borrowers to use the courier system, free of charge. If you need instructions about how to use the courier system, please contact the SWAAAC office at ATP.
- Borrowers DO NOT have permission to trade, sell or upgrade any loan bank equipment. You are welcome to contact Assistive Technology Partners should you learn of such opportunities.

Assistive Technology Evaluation

Referral

In Colorado, the Assistive Technology (AT) selection process in schools begins with a referral for assessment. Referrals can be initiated by anyone (including the child) concerned about potential barriers interfering with the child's normal development, ability to participate in their natural environment, achieve their IEP goals or access the general education curriculum. The referral provides information to the SWAAAC team regarding how a student is currently functioning in the school environment including the tasks a student is expected to perform and is unable to do because of an identified disability.

A representative of the IEP or IFSP team must contact a SWAAAC team member and complete a referral that documents the concerns of the team.

Many of the students who are seen by SWAAAC teams in schools also receive private evaluations and therapy. It is beneficial to collaborate with other agencies to establish common goals for use of AT in order to ensure coordination of services for the student.

Permission from parents and releases of information must be obtained by both the private agency and the administrative unit in order for school personnel or private agency practitioners to participate in the evaluation and for information such as the evaluation report and school records to be exchanged.

Assessment

It is important to recognize from the outset that a variety of solutions should be considered. This may include low and high tech solutions as well as accommodations and modifications, or a combination of all. It is critical to remember that the number one reason for technology abandonment is "lack of consumer preference and choice" (Phillips & Zhao, 1993). It is vital that the individual who is going to be using the technology be involved in the selection and choice of the device and/or adaptation.

Careful consideration of the child's goals, needs, limitations, and abilities will guide the team to establish priorities. The team also needs to discuss the environments where the child will function and the specific tasks he/she needs to complete. It is

also helpful for the team to observe the child with her peers to determine what activities the child is/or is not engaged in. Having a comprehensive view of all of these factors can then guide the team to brainstorm potential AT devices and services that may be useful.

Once potential devices and services are discussed, the team can set up trials with these devices, if appropriate, ideally in the environment(s) where they will be used. The assistive technology services necessary for a successful trial may need to be determined, such as delegating which person will borrow the device from a loan bank, program the device, make sure the device is working correctly, train the child to use it, and so on. Once the trial(s) is complete, teams should evaluate its effectiveness. If a device is deemed necessary, the process of implementation begins. If a device is not useful in meeting the child's needs, further evaluation with the device or with different devices or strategies may be warranted.

There is no specific test for assessing the need for AT. The assessment will be tailored to the unique needs of each child to determine if the child will benefit from assistive technology devices and services, and/or to determine what type of assistive technology devices and services are needed. Determining a student's assistive technology needs is typically an ongoing process rather than a one-time event. A team meeting, in which key people participate, is often a good place to start. These people may include:

- Student
- Parents
- Special Educator
- General Educator
- Speech/Language Pathologist
- Psychologist
- Physical Therapist
- Occupational Therapist
- School Nurse
- Other professionals who are knowledgeable about the child and invested in his or her success

A typical assistive technology evaluation may include

- Collecting data and information about the student pertinent to the referral
- Discussion with all stakeholders to gather information and to generate a range of solutions focusing on the relationship of the student's abilities and the environment to the tasks
- Prioritizing tasks with the most critical chosen for solution generation
- Brainstorming all possible solutions including names of specific devices with features that will meet the student's needs, as well as those features that are important to the student, considering both high and low tech solutions
- Selecting the most appropriate of the solutions, identifying those that can be implemented immediately, during the current school year, and in the future
- Conducting trials of the identified technologies
- Planning for implementation
- Collecting data to determine the effectiveness of the potential solutions
- Making final recommendations for device and services
- Writing final report and funding request
- Documenting AT device and service needs on IEP

Resources

There are several excellent resources for referral and assessment procedures and forms and questionnaires including the Wisconsin Assistive Technology Initiative (WATI) and the Georgia Project for Assistive Technology.

The WATI's **Assessing Student Needs for Assistive Technology** manual is available online at <http://www.wati.org/?pageLoad=content/supports/free/index.php>.

Many teams use the **SETT (Student, Environment, Tasks, Tools)** framework developed by Joy Zabala to guide assistive technology assessments: <http://www.joyzabala.com/>

Human Activities, Assistive Technology (HAAT), developed by Cook and Hussey, is another model which helps teams assess assistive technology needs: <http://www.teachingat.org/constructs/human.html>.

“**GPAT** has developed numerous resources to assist educators and families in providing assistive technology services to students with disabilities. These resources are organized by various process topics”
<http://www.gpat.org/resources.aspx> .

“The **QIAT Consortium** is a nationwide grassroots group that includes hundreds of individuals who provide input into the ongoing process of identifying, disseminating, and implementing a set of widely-applicable Quality Indicators for Assistive Technology Services in School Settings”
http://natri.uky.edu/assoc_projects/qiat/about.html

Sample Assistive Technology Evaluation Report

Name: _____ **Date(s) of Assessment:** _____

Address: _____ **School:** _____

Phone: _____ **Assessed by:** _____

Primary Medical Diagnosis: _____

REFERRAL INFORMATION:

John was referred to the SWAAAC team by his special education teacher, in order to determine if he would benefit from assistive technology to improve his functional communication and access of the school curriculum. John attended an initial assistive technology assessment meeting at Silver Elementary school on date. The purpose of this phase of the assessment was to gather information about John's abilities and challenges, to determine goals for AT use for the specific tasks he needs to complete, and to ensure that all members of John's school team were able to contribute pertinent information to the assessment process. John's parents, Greg and Sue were in attendance. In addition, several members of John's school team were present to include: .

On date, the SWAAAC team returned to the school to conduct the second part of the assistive technology assessment. During this phase of the assessment, a variety of assistive technology tools were introduced to John and his family for trial. John attended this meeting with both of his parents and the school team members listed above.

STUDENT PROFILE

John is a delightful, ten year old boy at Silver Elementary School in Moon, Colorado. John has a diagnosis of autism and severe language disorder. He lives in the home with his mother, father, and two older siblings. He is able to make some vocalizations and speaks a few words such as "mom," "dad," and "bo," but primarily uses sign language, gestures, and non-verbal communication to express his wants and needs. He has a limited number of people he can communicate with in the school environment, as many teachers and peers are unfamiliar or unable to interpret his sign language and other nonverbal communication. By report, John's limitations in communication are a source of frustration for him. His family and school team members report that he seems to "understand

everything” that is said to him. His family reports that their primary goal is to find a way to help him communicate more effectively.

John’s team describes him as “very social,” “compassionate,” “persistent,” “patient,” and “a friend to everyone.” His interests include riding bikes, being with friends, movement related activities, sports, cars, music, and video games. His strengths include his ability to be flexible and handle changes in his environment or routine, his friendly nature, his finger dexterity and fine motor abilities, his visual motor skills, his desire to be a leader, and his ability to follow multi-step directions. His challenges include his tendency to lack stranger awareness, his limited ability to communicate with others in the environment and the resulting frustration it causes, a limited attention span, impulsivity, limited self care skills, and difficulty expressing what he knows during literacy and other educational activities.

John attends the general education classroom and has paraprofessional assistance. He attends the special education classroom (ILC) for reading and also receives speech and occupational therapy services in a pull out setting. A typical day for John is as follows:

DAILY TASKS/ACTIVITIES
1. J. works on writing activities, sight word recognition, etc., with paraprofessional support in the general education room. He usually has three tasks to choose from, and typically completes 1 of the 3 tasks.
2. J. participates in a large group activity (paraprofessional is in the room, but does not give one-to-one assistance).
3. Reading Group (center based activities) in the ILC.
4. Lunch
5. Recess
6. Writing Group
7. Music, Art, or PE
8. Math: uses manipulatives, works on 1:1 correspondence, copies numbers
9. Social studies or Science (writing intensive)
10. Options time
11. Return to ILC for end of day wrap up; overview of homework, prepare to go home

ASSESSMENT STRATEGIES

A variety of assessment strategies were utilized to determine John's assistive technology including:

- Team meeting to discuss overall goals and gather information about John's strengths, challenges, environments, tasks, and potential tools for trial.
- AT Assessment: one-on-one observation of John using specific assistive technology tools to include: low tech communication symbols and picture cues; Big Mack communication device; levels-based voice output device; Tango! Voice output system; Vantage AAC system (icon sequencing voice output system); low tech adapted books/classroom materials with picture symbols; Classroom Suite; and Balanced Literacy.
- Dissemination of WATI Information Guide questionnaires to John's team to gather additional information about his communication, reading, writing, and math skills in the classroom.
- Classroom observation of John conducted by the special education teacher and the speech language pathologist.
- Review of John's educational records to include: Individualized Education Plan.

RESULTS OF ASSESSMENT/EDUCATIONAL IMPLICATIONS:

Augmentative Communication

Oral Communication: John communicates primarily by using signs and hand gestures. He knows approximately 150 signs. He makes some vocalizations such as "mom," and "bo." He uses a combination of sign language and non-verbal communication (gestures, pointing, and facial expressions, etc) as well. For example when asked, "Who do you like to wrestle with?" he pointed to his dad. John demonstrates a strong motivation and desire to communicate his wants and needs and appears to have a variety of things he wants to communicate.

During the Phase 2 assessment, John was introduced to a variety of communication systems ranging from low to high tech. He demonstrated the ability to point to picture symbols from a field of four upon request, point to symbols while following along with the words of a song (with prompts from a partner), and make choices by selecting a picture symbol when prompted to "pick one." He appeared to learn the meaning associated with symbols easily given one or two demonstrations.

Using voice output systems, John hit a single switch voice output device (Big Mack) appropriately and without cues to participate in a book reading task. He was also able to locate independently and hit a button from a field of 32 one inch buttons (when approximately 20 buttons were filled) to request "turn the page." Using the Tango! Communication device, John selected buttons easily and showed interest in

exploring the device. He was unable to successfully push buttons to tell a story independently by sequencing, and showed high distractibility during this task.

John demonstrated the ability to initiate communication several times using the devices provided. He communicated protests and requests. For example, when he wanted a turn, he pointed to himself and then to the device. When he wanted to read the book again, he pointed to the symbol that said "read it again". When told to pick only one symbol, he held up one finger and put the second selection back. He appeared to have the ability to understand symbol meaning but would need repeated exposure and training to develop competence with a picture based communication system.

John used the TechScan 2 x 32 levels based AAC system to participate in a singing activity and book reading. He demonstrated the ability to sequence three buttons in a row with prompts and learned operations of the device quickly such as the on/off feature and volume. He used the device to answer questions about a singing activity (ie: he selected the appropriate message to request a clothing item given a visual prompt). He demonstrated a good ability to visually scan the buttons on the array and accessed the system easily using his index finger. It was noted that he needed to push some buttons requiring greater pressure several times to activate them. He was not always aware if a button had been pushed, and may benefit from auditory feedback to cue him when selections are made.

John explored the Vantage 45 location voice output system to determine his ability to sequence symbols to create messages. John demonstrated the ability to select buttons with his index finger, but showed a tendency to drag his knuckles across the screen, selecting messages accidentally at times. After 1 -2 models, John was able to select the back button, clear button, and speaking bar consistently. He was also able to locate the symbol for "I," upon request and recognized sign language symbols such as "help." He did not demonstrate the ability to sequence icons during this observation; however, further exploration of this skill is recommended. John will benefit from an opportunity to use the Vantage while interacting in meaningful activities such as playing a game or reading a book.

Overall, John demonstrated good potential to learn the use of low to high tech AAC systems. He used low tech picture symbols well to engage in activities and also demonstrated good potential to learn the use of mid-tech and high tech AAC voice output systems. He showed impulsivity and decreased attention span during many activities and required visual and verbal prompts to stay on task. However, he did demonstrate the ability to learn symbol associations, manipulate device functions and buttons, and initiate simple messages without prompts. He does demonstrate a tendency to drag his hand across a flat screen and hit buttons repeatedly without recognizing he has made a selection. Decreasing the sensitivity of the symbol array and/or providing auditory cues (such as a beep) to indicate when he has made a

selection may be helpful in the training phase. A keyguard may also be useful if the auditory prompts are not successful.

Computer Based Instruction/Computer Access: John was introduced to several computer based activities during the Phase 2 assessment. He demonstrated an ability to navigate the computer using a standard mouse and opened and closed programs independently with both a single and double-click. John seemed highly motivated by computer activities of all varieties, but also showed impulsivity and a tendency to click buttons excessively. During typing tasks, he was able to locate letters using a hunt and peck method on a standard keyboard. His team indicated that he is able to recognize most letters. He did show a tendency to hit keys accidentally with his knuckles, so an alternative keyboard was introduced.

Using the IntelliKeys alternative keyboard and an ABC overlay, John was better able to select keys without accidental hits. The response rate of the keys was decreased, so that John had to dwell on a key to make a selection. When the response rate was too slow, John demonstrated errors due to impulsivity and would move to another key before a selection had been made. Further trial of this adaptation would be beneficial to determine the best response rate. Additionally, setting the keyboard up so that it gives an auditory cue such as a beep might assist John with recognizing when a selection has been made.

Written Communication: John demonstrated the ability to hand write his name and by report is able to trace letters with hand over hand assistance. By report, he also demonstrates difficulty with finger dexterity and manipulative tasks. For example, during one classroom observation conducted by the speech therapist, John had difficulty holding up three fingers to represent the number 3. In the classroom, John is not currently generating written text by handwriting or typing. Using the IntelliKeys keyboard with an ABC overlay, John was able to type his name with minimal cues. John was introduced to pre-designed writing activities using both low and high tech adaptations. During a book reading/writing activity called "Snowman, Snowman, What do you See?" John selected the appropriate low tech picture symbols (each paired with a word) and inserted them into a sentence strip with independence. Using Classroom Suite and the mouse, he was able to complete an errorless writing activity by clicking on a button titled "I like" and then choosing the sentence ending from a field of six (ie: "football," "playing with friends," "listening to music," "video games," etc.). John demonstrated the ability to choose the appropriate picture symbol when asked to select a specific sentence ending. It is unclear if he was reading the words on the button or using the picture supports to help him make these selections. As he completed sentences, the program read the sentences aloud. John demonstrated an increase in his vocalizations throughout this activity and appeared to be motivated by it.

Using IntelliTalk 3, John practiced typing words such as his name and simple words like "mom," and "dad." Using this talking word processor, John received auditory feedback as each letter was typed and as each word was completed. He appeared motivated by this activity and responded well to auditory feedback. He also appeared to use this tool as a

learning device. He listened to the sounds various letters made and recognized when he had chosen a correct or incorrect letter for the word he wished to spell.

Hearing/Vision: By report, John's hearing is within normal limits. He is slightly near-sighted, but has no need for eyeglasses.

Reading: During the Phase 2 assessment, John was introduced to Balanced Literacy, a phonics based reading/writing software program by IntelliTools. This program teaches literacy skills such as phonemic awareness, phonics, decoding, fluency, vocabulary, and comprehension. It is an achievement based program that tracks student progress. A student is unable to progress to a higher level task until the lower level tasks are completed successfully. Using this program, John was introduced to a guided reading activity and to a quiz activity that prompted him to locate animals discussed in the book. To start the program, John was able to recognize his name from a field of two and select it using the mouse. He listened to the song/story and advanced the pages using his mouse. He demonstrated impulsivity at times during this activity, making selections repeatedly and advancing through more than one page of the book at a time. He did not, however, appear frustrated by the structure of the activity and showed potential to gain an understanding of the program navigation with practice and support.

Math:

Using Classroom Suite and the IntelliKeys keyboard with an adapted overlay, John participated in a "Counting Trucks" activity. John listened to on-screen prompts and selected responses using the adapted keyboard. John again showed impulsivity with this activity and required cueing to slow down his response rate and avoid accidental selections.

By report, John is easily distracted during math lessons in the classroom. According to the speech therapist who conducted classroom observations, he showed good response to verbal redirection paired with sign language; however, his inability to communicate limits his level of participation.

Learning/Studying: John appears to be a bright student who understands much more than he is able to communicate. He also appears eager to please others and responds well to positive reinforcement. He does not seem to become easily frustrated and handles a change in routine or activity well. His impulsivity and high distractibility does create a barrier in performance at times. During the Phase 2 assessment, John appeared to respond well to visual prompts such as a picture symbol paired with the word "stop." This visual prompt was used several times to remind him to wait his turn or to stop making key selections excessively. Further assessment of visual prompts, visual schedules, and reinforcement cards may therefore be beneficial. John also appeared to respond best to simple, one step directions, and carefully guided instructions. Team members working with John may also have to make an effort not to provide too many prompts. Due to his

impulsive nature, excessive prompting from teachers/therapists/family members is likely to occur.

Other Observations:

By report, John's speech language pathologist observed him using the Boardmaker Activity Pad to participate in leisure/family activities such as playing games and story book reading in class. During these activities, John showed success initially, but tended to get bored with the messages over time. He also demonstrated difficulty with single finger selections. John did seem motivated to use the device, especially when his peers were also using it. He appeared to benefit from the picture symbols for receptive language and also appeared to prefer short responses. He was less motivated by book reading activities and according to his family refused the device when they introduced it at home for a book reading task.

RECOMMENDATIONS FOR CONSIDERATION

The following assistive technology strategies are recommended for consideration. In cases where a device, piece of equipment, or low-tech aid is recommended, we suggest a minimum one-month trial. Criteria for success with each device will need to be addressed by the IEP team and determined before implementing the trial. We do not recommend purchasing the products mentioned below until a trial has been completed and data has been collected and the IEP team determines whether the AT resulted in improved educational performance based on the data collected.

We recommend developing data collection strategies prior to the initiation of your trial. The "Trial Use Summary Guide" by the Wisconsin Assistive Technology Initiative may be helpful in establishing the purpose, duration, and goals of a trial and also helps to identify which team members are responsible for assisting with the process and the specific tasks they will each complete. A copy of this form is included with this report.

Augmentative Communication: Due the complexity of John's communication needs and his adaptive nature, a total communication approach that allows him to use a variety of strategies may be an ideal method for providing him functional communication across all environments. A total communication approach combines various strategies to include sign language, low tech AT, and high tech AAC systems.

1. Continue to teach sign language as a component of John's communication system. John uses sign language effectively with his family and some communication partners at school. It is believed he will use the most efficient and effective means of communication for a given partner and at a given time. Therefore, encouraging further development of this skill will be beneficial as a supplement to other systems.
2. Implement low tech voice output systems such as the Big Mack communication device, symbol notepads, and simple voice sequencing systems. These devices allow teachers/therapists/family members to program and reprogram

simple messages quickly and easily. For example, the Big Mack can be used to program repeated story lines of a book, greetings or introductions, and repeated phrases as part of a song or morning activity. The symbol notepads can be programmed with common requests or phrases and placed in common areas within the classroom. For example, a symbol notepad hanging at the door could read a message such as "Hello Mrs. __, how are you today?" or "I need help please." The simple voice sequencing systems such as the One Step by Ablenet, allows students to hit the button to say a series of messages in succession such as "Simon says, stand on your foot....Simon Says clap your hands...etc." Picture symbols representing the message(s) can be attached with Velcro to the top of the devices and interchanged between activities. For more information on ways to implement simple voice output systems in the classroom, refer to the document titled "101 Ways to use a Big Mack" included with this report.

3. Use levels-based devices such as the Tech Talk to create activity related overlays. These devices allow users to store several levels of pre-recorded vocabulary (with up to 32 messages per level) on one device. For example, John enjoys being a leader and may benefit from directing classroom activities. Teachers/therapists can create overlays and pre-program vocabulary for games such as BINGO and Simon Says. In addition, vocabulary can be stored for common classroom activities such as morning circle, book reading, library time, and other repetitive daily activities.
4. Provide trial with high tech system such as the Vantage AAC system. John demonstrates good potential to learn the use of a high tech system with proper support and training. It is highly recommended that team members attend a training specific to this device to become familiar with the best methods for teaching success in its use. It is also recommended that the device be used to engage John in highly motivating activities initially, such as activities that engage him socially with his peers. Playing games (or being the leader during games), interacting during story time, singing songs, and telling jokes are some examples of socially motivating activities that might be appropriate. It may take time for John to develop proficiency using a high tech system, so the lower tech methods can serve as a supplement while he refines his use and knowledge of a high tech system.
5. Limit the number of symbol choices initially for either the low or high tech systems. John will need assistance with understanding the power of a communication device. Turn taking activities with limited choices (about eight messages), and the removal of control panel access will be important. As John discovers the power of communication and the meaning of symbols, additional symbols can be added.
6. Consider decreasing the sensitivity of the symbol array and providing auditory feedback (such as a beep, which is available on some devices) to cue John when he has made a selection and minimize his tendency to make accidental selections. If these methods are unsuccessful, consider using a keyguard, which is available on many devices.
7. Choose vocabulary from specific activities that are extremely motivating for Josh to participate in. The vocabulary should be a combination of activity controlling phrases such as, "do that again," "it's my turn" and fringe activity vocabulary from activities such as "Red Light Green Light," "Simon Says," or "Go Fish."

Written Communication: John demonstrates some handwriting abilities and should continue to work on this skill. However, because he is not currently able to write at a level commensurate with his peers and due to his increased interest in computer based activities, he may benefit from alternative methods to provide him greater independence in writing tasks.

1. Consider providing John with low tech writing supports such as magnetic letters or stamps for spelling activities. For writing composition, consider creating low tech writing environments using picture symbol supports. Programs such as Boardmaker or Pixwriter can be used to create word banks or sentence strips (each paired with pictures and laminated on a card) that John can assemble manually to create sentences or paragraphs. As John learns to read words, the picture symbols can be removed. Likewise, worksheets can be created, and John can complete them by putting the low tech word cards or sentence strips in the blanks.
2. Consider using a talking word processor, such as PixWriter or IntelliTalk 3 (part of the Classroom Suite program) to complete spelling and writing activities. John appeared to benefit from the auditory feedback of a talking word processor while spelling simple words. In addition, these programs can be used to create writing environments, much like the low tech systems described above. John can click on pre-programmed words or phrases to type sentences or complete fill in the blank worksheets.

Computer Based Instruction/Computer Access: John demonstrates proficiency with a computer mouse and keyboard, but does demonstrate accidental hits at times due to his impulsivity and his tendency to rake his knuckles across the keyboard. Some adaptations to assist with improved typing include:

1. Consider decreasing the sensitivity of the computer keyboard by turning on the “filter keys” function located in the Accessibility Options folder within computer’s system utilities. This function can be accessed through the control panel, and will prevent accidental key strokes when John rakes his knuckles across the keyboard. For information on making this adjustment, refer to the document titled “Adjust the Character Repeat Rate” included with this report.
2. Consider trial with an alternative keyboard such as the IntelliKeys. This adaptive keyboard can be programmed so that it is less sensitive to touch and will only accept a key selection if John holds it down for a specified time. In addition, this keyboard can be set up to make a beeping noise each time a key is selected. Using a talking word processor during typing tasks that is set to speak letters as they are typed can also assist John with recognizing when a key selection is made.

Reading: Due to limited time spent in observation with John, it is difficult to accurately assess John’s reading level. John does seem to recognize the sounds of some letters and appears to be a visual learner. Some strategies to assist him with reading tasks include:

1. Consider using a symbol word processing program such as Picture It or Boardmaker to pair words with pictures and provide him comprehension cues.
2. Consider typing text (such as directions or difficult concepts from a Social Studies or Science text) into a talking word processor such as IntelliTalk 3. John can listen as the text is read aloud to increase comprehension.
3. Consider supplementing John's literacy program with a computer based program such as Balanced Literacy, which will teach basic literacy concepts and provide him a means to demonstrate his level of understanding despite his communication limitations.

Math: John is likely to benefit from the use of manipulatives and visual supports during math activities. Consider pairing picture symbols with words to assist John with understanding math instructions. In addition, picture symbols can be laminated and used much like manipulatives are (for example, you can create and laminate pictures of butterflies, birds, and dogs, then use them as part of a counting activity). In addition, IntelliMathics 3 (part of the Classroom Suite program) provides users the ability to manipulate objects on screen while receiving visual and auditory feedback for counting, categorizing, and making charts/graphs.

Learning and Studying: To assist John with staying on task and reduce impulsivity, the following strategies are recommended:

1. Consider implementing the use of visual cues by pairing pictures with words to prompt John to "sit," "wait," "look," "listen," "stop," etc. During the assessment, John responded well to these visual cues and will likely improve his ability to attend given these prompts.
2. Consider implementing the use of a reinforcement board or token board to assist John with staying on task. For example, consider creating an "I am working for" board. On this board, a variety of pictures symbols can be created to represent things that are highly motivating to John. At the bottom of the card, space is provided for tokens to be attached to the card. When John completes a specific activity (or attends to a task for a specified time) a token is placed on the board. Once all tokens are received, John receives the desired reinforcer. Team members should determine in advance how many tokens John should work for to receive a reinforcer, and gradually increase the number of tokens required over time.
3. Consider using visual schedules to assist John with understanding the tasks for the day, or sub-tasks within an activity. For example, during a writing task on the computer, the individual steps can be broken down into mini-steps such as "find your name," "type your words," "print the paper," etc. There are many types of visual schedules. A copy of a "Now/Then" visual schedule is provided with this report in addition to the document titled "Visual Schedules."
4. Consider using a visual timer to provide John a more concrete representation of how long a task will take or how long he is expected to work at an activity.

A variety of strategies to assist John in improving his communication and access to the curriculum are included in this report. To prevent John and the school team from

becoming overwhelmed, the team may want to consider carefully choosing which technology to try first. A trial with only two or three technology options at a time may be best. If you have questions or concerns regarding this report or the technology suggested for trial, please contact our office and we will be happy to provide further assistance or explanation as needed.

Signature

Date:

cc: Family
School

Sample AAC Evaluation Report

AUGMENTATIVE ALTERNATIVE COMMUNICATION EVALUATION

I. DEMOGRAPHIC INFORMATION

Name:		Date of Birth:	
Date of Service:		Address:	
ICD-9/Medical Diagnosis:		Phone:	
ICD-9/Speech Diagnosis:		CPT/Start-End Time:	
Speech Therapist:		CPT/Start-End Time:	
Phone:		Total Duration:	

II. HISTORY/BACKGROUND (ICD-9 Diagnostic Code:)

John was referred to Assistive Technology Partners by his primary care physician, Dr. Jane, for an Augmentative Alternative Communication (AAC) Evaluation. John underwent radiation therapy and chemotherapy after a throat tumor was discovered in date. Treatment was completed by date. He currently has a tracheostomy tube, however; due to scarring and muscle weakness he is unable to speak at this time. John also struggles to swallow and as a result is unable to handle his secretions. He presently has a gastrostomy tube for nutrition purposes. John's speech and dysphagia services were terminated, but he has been independently completing throat and swallowing exercises. He will return for continued therapy as progress dictates. Current means of communication include: gestures, pointing, facial expressions, and writing. His ability to communicate across environments and communication partners is limited.

Anticipated Course of Impairment

John is extremely motivated to communicate his thoughts and ideas. He is determined, persistent, and eager to learn an AAC system that will work for him.

He communicates using gestures, pointing, facial expressions and written communication. John struggles to speak due to scarring and muscle weakness from radiation and chemotherapy. John's ability to verbally communicate has not shown improvement at this time. John reported that his frustration level is high because he is unable to communicate across environments. His goal is to be able to communicate with others and be independent.

III. COMPREHENSIVE ASSESSMENT

Hearing

John did not report any hearing concerns. His hearing presents within normal limits. He responded well, localizing to typical conversational tones and volume as well as synthesized speech from a variety of text-to-speech communication devices.

Vision

John wears bifocals. He did not show or report any difficulties with visual attention, scanning, tracking, or acuity. He possesses the visual abilities to effectively use an SGD.

Physical

John is ambulatory. He does not present with any fine or gross motor weaknesses except for his swallowing difficulties. He crosses midline with all 4 extremities, grasps, reaches, manipulates small objects and is able to isolate his index fingers. He is a competent, 2-handed typist. John possesses the physical abilities needed to effectively use an SGD to communicate functionally.

Language and Cognitive Skills

John was unable to verbalize or vocalize throughout the entire evaluation. He provided a pre-typed paragraph at the beginning of the evaluation to describe his past medical history and communication frustration. He answered questions during the evaluations by writing with pen and paper. Informal assessment revealed language skills to be within normal limits. He answered yes/no questions and closed and open-ended questions with ease. When given a Lightwriter, Fusion and a DynaWrite he actively participated in conversation to answer questions without difficulty. He was able to follow multi-step directions related to the use of a variety of text-to-speech devices. After trialing each of the three devices, John reported that he felt most comfortable using the Fusion and wanted to pursue funding.

Throughout the evaluation, John retained task instructions without difficulty. He also provided feedback related to information presented and discussed throughout the evaluation. John demonstrates the language and cognitive skills to learn and functionally

utilize Augmentative and Alternative Communication (AAC) techniques, strategies and equipment including an SGD.

IV. DAILY COMMUNICATION NEEDS/HISTORY OF TECHNOLOGY USE

John's verbal communication skills are severely limited. Specific message needs include: expressing needs and wants, expressing preferences and making choices, making requests, commenting, asking questions, offering information and expressing feelings/opinions. He needs a consistent and efficient way to communicate across environments and communication partners including healthcare providers and unfamiliar listeners in the greater community. John currently uses pen and paper, facial expressions and gestures to communicate. He also emails, using a standard computer keyboard and mouse. He has never used an AAC device or other communication technology before, but has been told about the DynaWrite and the Franklin Language Master in the past.

V. ABILITY TO CURRENTLY MEET COMMUNICATION NEEDS

John is able to meet some of his communication needs by writing. However, he has language and cognitive skills for limitless, novel, generative language. John will require AAC training, strategies, equipment, and services to support and develop his communication skills

VI. FUNCTIONAL COMMUNICATION GOALS

1. John will utilize a comprehensive Augmentative Alternative Communication system for communication across limitless environments and communication partners including caregivers and healthcare providers.

VII. FINAL RECOMMENDATIONS

1. The Fusion Text-to-Speech with Speaker, see attached Order Form for pricing information. This package includes the Fusion, headphones, infrared receiver; AC adapter/recharger and canvas slip case.
2. 10 follow-up treatment sessions for education, training and programming services for the efficient and effective implementation of AAC strategies, techniques and equipment.
3. Develop low-tech AAC strategies and systems to augment the Fusion and support communication when the Fusion is unavailable.

The services of this program, Assistive Technology Partners, are available for further evaluation, training and follow-up as desired by John and/or his family.

I, SLP name, am not an employee of or have a financial relationship with The Writer Learning Systems or any other Assistive Technology/Speech Generating Device manufacturer.

Please contact me at the number or e-mail address below if I can provide additional information and/or answer any questions.

Date signed:

Name of SLP	
Speech-Language Pathologist	
ASHA #	
Phone:	
Email:	

Cc: student record
Client and/or client family
Physician

Assistive Technology and the IEP

Consideration of assistive technology during the IEP process

- Every IEP team is required to consider each child's need for assistive technology during the IEP process as part of the Special Factors requirement in IDEA. Consideration is a process that takes place within every IEP meeting. In order to consider the need for assistive technology, at least one person on the IEP team must have knowledge of the assistive technology being considered to meet educational needs. If the IEP team determines that assistive technology is necessary for a student to receive FAPE, the school must provide it. The IEP is a written commitment for the delivery of services to meet a student's educational needs. A school district must ensure that all of the related services specified in the IEP, including the amount, are provided to a student.
- As stated in IDEA, assistive technology devices and/or services may be required by a student in order to provide FAPE. These services can be provided by special educators, speech/language, occupational and physical therapists and other trained providers in the area of AT. The service provider does not have to be an assistive technology specialist or a SWAAC team member.
- The IEP team must consider whether the child needs assistive technology devices and services and is required to check the corresponding yes/no box on the IEP. It is important that the child's need for AT devices and/or services be documented on the IEP. The need for AT devices and/or services may be documented or described in the following sections of an IEP: Consideration of Special Factors, Accommodations and Modifications, Goals and Objectives, and/or Special Education and Related Services. It is recommended to list device features when describing AT to allow for student growth, student mobility and new technologies. An example of a generic description is "lightweight portable keyboard capable of storing text and sending written output to a computer or printer." A NEO, Dana or Fusion would fit the description and possibly meet a student's needs.

- When a student receives an assistive technology evaluation, it results in recommendations to inform the IEP team and assist them in their decision-making. The decision about what assistive technology devices and services a student requires and how they are included in the IEP is the responsibility of the IEP team.
- It is the school's responsibility to maintain and repair student-owned equipment when the use of the equipment has been determined to be necessary in order for the student to receive FAPE.

Writing goals and objectives

Assistive technology is not a goal in and of itself; it is a means or a tool to accomplish a goal. However, the complexity of an assistive technology device may require that goals and objectives be developed to teach a student to use the AT. This is especially important if there is a long learning curve anticipated or that many hours of instruction will be devoted to learning basic operational skills. In cases such as these, use of assistive technology is an access skill.

When a student has some proficiency with an AT device, an embedded goal or objective (e.g. "Using her dynamic display communication device, Sally will present a book report to the class.") would be appropriate because the AT is the tool with which Sally can do the same task that the other students are doing as part of the general curriculum. However, if Sally has just received her communication device and is learning to use it independently, the goals and objectives should reflect that and not imply that such skills as presenting a book report are part of her current repertoire.

Samples of goals and objectives

Objectives are intermediate steps between the Present Level of Educational Performance and the Annual Goal(s) established for the student.

Goal: Oscar will use a repertoire of communication strategies to express wants and needs at home and in school at least five times each day.

Objective 1 Given a verbal prompt to choose, Oscar will make two choices during snack time using vocalization, sign, gesture, picture board or voice output communication aid in 75% of opportunities, four out of five days.

Objective 2 Given a single message communication device, with appropriate language, Oscar will indicate a desire to change activities by activating the device instead of crying 50% of the time.

Goal: Luisa will participate in first-grade level math activities using a variety of assistive technology devices.

Objective 1 Luisa will complete simple single digit addition and subtraction computations using adapted manipulatives with 90% accuracy.

Objective 2 Using a basic numbers overlay on an alternative computer keyboard, Luisa will complete daily math assignments with 90% accuracy.

Goal: Trent will produce all written assignments in American Government independently.

Objective 1 Trent will complete 100% of assignments in American Government using a computer with a word processor, word prediction software and Text-to-Speech feedback.

Objective 2 Trent will locate the print command in the File menu and independently print documents 100% of the time.

Frequently Asked Questions (FAQs) About Assistive Technology

Assessment

1. Who is eligible to receive an assistive technology assessment?

Any child can be referred for an Assistive Technology (AT) assessment by any member of their 504 or IEP team including their caregivers. The assessment must be tailored to the unique needs of the child and provided in an environment where the child will perform at his/her potential. There is no specific test for evaluating the need for assistive technology. Therefore, prior to conducting the evaluation, the team needs to have a well planned evaluation process.

2. Who should be included within the team of professionals to assess children for assistive technology?

Those involved in assessments might include: parents, child, early childhood special educator, special education teacher, occupational therapist, physical therapist, speech-language pathologist, audiologist, vision specialist, technology specialist, general education teachers, school nurse, paraprofessionals, or any other individuals familiar with the child and invested in his/her success.

3. Can an independent evaluation be requested to address assistive technology?

If school or district does not have appropriately trained personnel, it must obtain such persons to perform the evaluation. If parents disagree with the results of the evaluation performed by the school, they can request an independent evaluation.

4. When is it appropriate for a child to use assistive technology when participating in educational evaluations?

Children may use assistive technology to participate in assessments, such as for special education assessment, classroom-based assessments, state and local district assessments, etc. The use of assistive technology devices during assessment of children with identified AT needs ensures their performance accurately reflects their aptitude or achievement level or whatever the test purports to measure.

Funding responsibilities and resources

1. Are schools required to pay for assistive technology devices and services?

For children ages 3 to 21 who need assistive technology, it is the responsibility of the school or district to provide the equipment, services or programs identified in the IEP. The school may pay for the equipment, services, or programs itself, utilize other resources, or cooperatively fund the device(s) and/or services.

2. Can schools require parents to pay for an assistive device(s) or service(s) identified in the child's IEP, or require the parents to use their own private health insurance to pay for the device and/or services?

As stated in IDEA and its regulations, special education and related services identified in the child's IEP must be provided at no cost to the parents.

3. Can Medicaid funds be used to purchase assistive technology devices?

Medicaid funds or private insurance can be accessed only if the parents agree. Parents are not obligated to use private insurance or Medicaid.

4. What other resources can be considered in lieu of purchasing assistive technology devices?

CCBs, schools or districts might consider rental or long-term lease options of equipment or devices. Computers can often be leased, but many devices do not have long term lease options. Advantages to leasing include no obligation to purchase the device, reduction of obsolete inventory, flexible leasing terms, upgrading equipment as improved technology becomes available, and upgrading of equipment as the child's needs change.

5. Who determines how assistive technology will be purchased and with what available funding resources – the IEP team or administration?

Once the IEP team makes the determination that assistive technology must be provided as part of the child's IEP, it is the responsibility of the school administration to determine how the assistive technology will be provided and with which funding resources. The decision as to the appropriate type of assistive technology should be based on the child's needs as determined by the evaluation recommendations and IEP team decision.

6. Is a school responsible for providing “state of the art” equipment for a child?

IDEA states that “state of the art” technology is not required. AT must be “educationally necessary” and “appropriate”. Top of the line technology is not a requirement.

Equipment: Ownership, use, repair, insurance

1. Who owns the assistive technology that is purchased for the child?

If the school or district purchases the equipment or device, the school or district owns the device. If the device(s) is purchased with the child’s private insurance or Medicaid funds, it belongs to the child and is meant for exclusive use by the child. If the device was donated, the IEP team or the donor decides ownership.

2. Under what circumstances can assistive technology devices be taken and used in the home?

A child can take a device home if the IEP team determines the child needs the device in order to implement the educational program. A school or district cannot limit access to AT because of anticipated or real fears of damage.

3. What happens to the assistive technology device when the child transitions from Part C to Part B services or moves or leaves the school system?

If a child’s AT device is listed on the Individualized Family Service Plan (IFSP) then it can be transitioned to the IEP at school. A transition plan for the child should be documented on the IFSP. Any device belonging to the CCB, school or district remains with the CCB, school or district if the child leaves the system. The same device or a comparable device must be provided when a child moves from grade to grade or school to school.

5. Can the school require the child to bring a personally owned assistive device, such as an augmentative communication system or laptop computer, to school?

The school cannot require the child to bring a personally owned assistive device to school, but the parents may choose to send the device because the child is most familiar or comfortable with it.

6. How can one trial hardware or software prior to purchase?

The state SWAAAC loan bank allows for four-week trials of AT through the SWAAAC team coordinator. Some vendors allow individuals to borrow equipment or download free software trials. Contact individual vendors for more information.

The IEP (Individual Education Plan)

1. How can effective implementation and continuity be achieved in the child's program with regard to assistive technology devices and services from classroom to classroom, teacher to teacher, school to school, year to year?

The IEP team needs to discuss how the devices will be used by the child and how it will be integrated into the curriculum and used by the child in the classroom. All members of the team who work with the child and are impacted by the AT device should participate in this discussion and document the recommendations. Each child's IEP must be reviewed at least annually. The IEP team should discuss and identify personnel and family training needs as they relate to the child's progression through the school program.

2. How does one distinguish between assistive technology and personal items (e.g., wheelchairs, hearing aids, eyeglasses, etc.)?

As a rule, public agencies such as schools are not responsible for providing students with eyeglasses, hearing aids or braces that the student would wear regardless of whether or not they attended school. However in rare circumstances, if a student's IEP team specifies that a student requires a specific device in order to receive FAPE, the public agency must provide the device at no cost to the student's parents. One example might be eye glasses that are use for a non-corrective purpose such a magnification or glare reduction.

3. How is assistive technology documented on the IEP?

The IEP team must consider whether the child needs assistive technology devices and services and is required to check the corresponding yes/no box on the IEP. It is important that the child's need for AT devices and/or services be documented on the IEP. The need for AT devices and/or services may be documented or described in the following sections of an IEP: Consideration of Special Factors, Accommodations and Modifications, Goals and Objectives, and/or Special Education and Related Services.

4. How is assistive technology considered on the IEP?

Consideration is not specifically defined in IDEA. The word consideration means to give careful and deliberative thought. Appropriate practice would suggest the IEP team needs information about:

- The student
- The environments
- IEP goals,
- Benchmarks and objectives
- AT possibilities