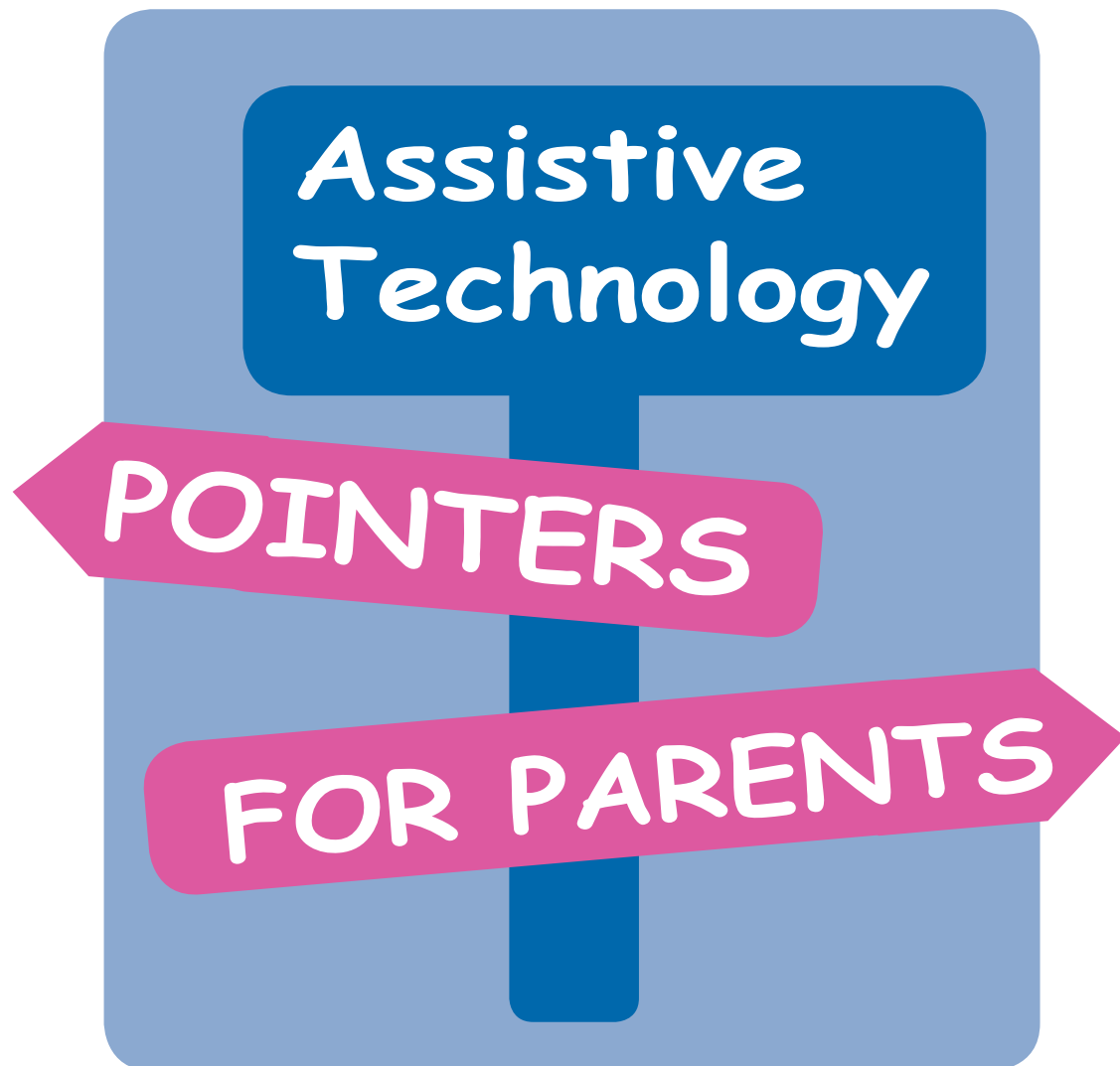
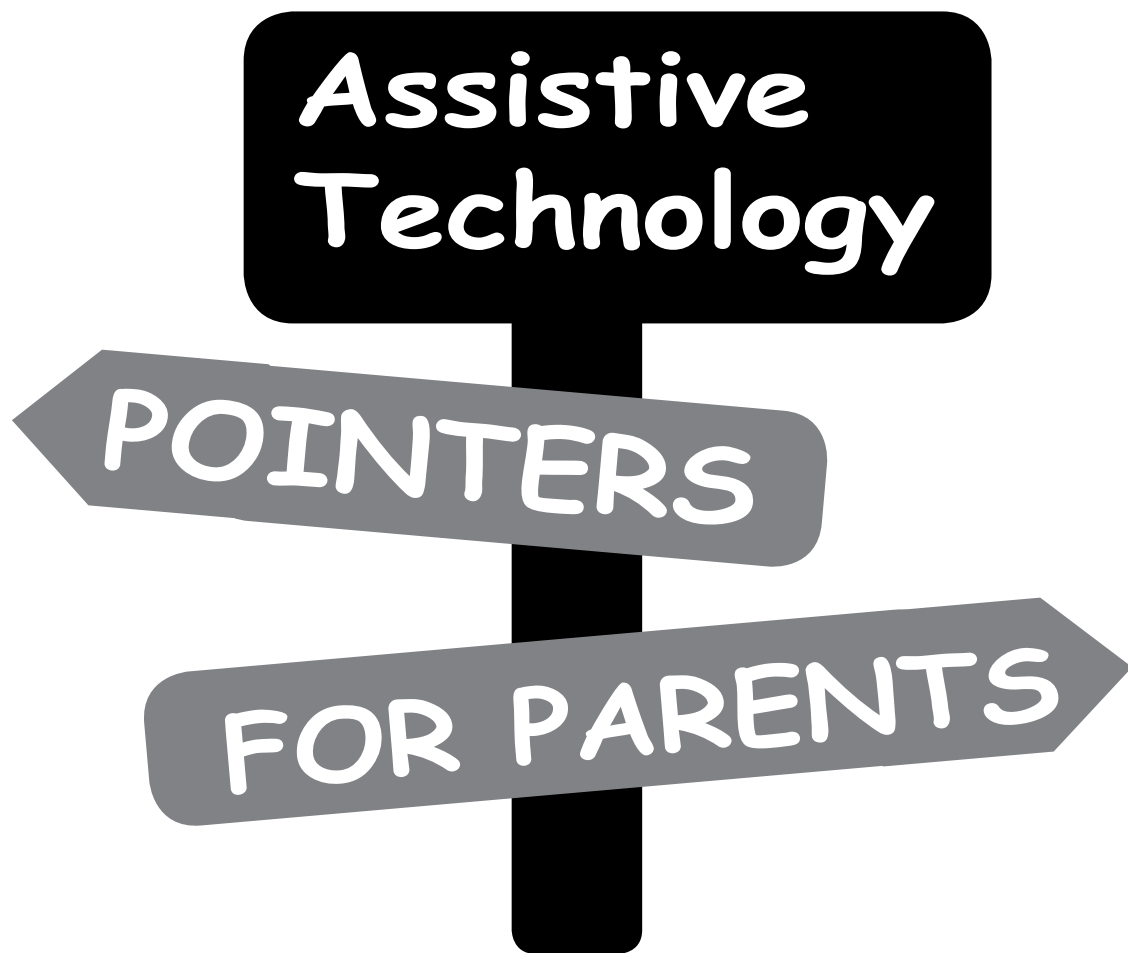




2nd Edition
Penny Reed • Gayl Bowser
2014



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Gayl Bowser and Penny Reed
January 2014

Table of contents

<i>Assistive Technology Pointers for Parents: A strategy for working with schools</i>	5
Understanding assistive technology	7
Parents and assistive technology decisions.....	11
Parents and <i>Education Tech Points</i>	14
<i>Education Tech Point 1: Consideration and referral</i>	15
<i>Education Tech Point 2: Evaluation</i>	21
<i>Education Tech Point 3: Trial period</i>	27
<i>Education Tech Point 4: Plan development</i>	33
<i>Education Tech Point 5: Implementation</i>	41
<i>Education Tech Point 6: Periodic review</i>	47
<i>Education Tech Point 7: Transition</i>	53
Using <i>AT pointers for parents</i>	59
How to get more information on AT.....	61
Appendices list	63
Appendix A: Sample lists of assistive technology.....	65
Reading	
Studying	
Communication	
Appendix B: Forms mentioned in this book	67
Assistive Technology Trial Period Plan	
Assistive Technology Implementation Organizer	

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Penny Reed and Gayl Bowser are also coauthors of *Education Tech Points: A Framework for Assistive Technology, Third Edition (2012)*. The *Education Tech Points* manual is distributed by the Coalition for Assistive Technology in Oregon and is a companion publication to *Assistive Technology Pointers for Parents*.

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Assistive Technology Pointers **for Parents: A strategy for working with schools**

As families of children with disabilities interact and network, they share stories about the ways technology can help. Many parents and guardians have become more familiar with technology as a personal tool and can imagine benefits for their children with disabilities. They may know that the Individuals with Disabilities Education Improvement Act (IDEA) requires the provision of assistive technology (AT) for children who need it. Sometimes, those parents and guardians do not know how to advocate for assistive technology devices and services for their own children.

Education Tech Points (Bowser & Reed, 1995, Bowser & Reed 2012) are of interest to parents and guardians, educational teams, and advocacy groups as tools to help them think about the provision of assistive technology devices and services. Each Education Tech Point identifies a specific place in planning for and provision of special education services where the need for both assistive technology devices and services might be addressed. The *Education Tech Point* system suggests questions which you and your child's team might ask at each step in the process of planning individualized educational programs (IEP) for your child. It also applies to the individualized family service plan (IFSP) that is developed for young children. *Educational Tech Points* also offer a way to integrate assistive technology into the case management system that each school district already uses to ensure provision of appropriate services to children with disabilities. Parents and guardians are discovering that the *Education Tech Point* framework can be helpful to them as

they work with their school district to assess the need for AT and to obtain it for their child.

Assistive Technology Pointers for Parents is the parent-oriented version of the *Education Tech Point* framework. The intended audience is anyone who is a parent, guardian, or primary caregiver for a child with a disability. Throughout the text we have used the word parent to refer to all of these. *AT Pointers for Parents* focuses on specific questions that you can use to help move the decision-making process forward appropriately and effectively as you work with your child's education team. *Assistive Technology Pointers for Parents* provides a strategy for working with schools. This parent version of *Education Tech Points*, describes two kinds of questions. The first kind of questions are those that parents can ask themselves or other family members before beginning dialogue with the schools. These preparation questions help you to be clearer with the teachers and other service providers who serve your children and to improve communication about the need for assistive technology devices and services. The second set of questions for each *Education Tech Point* are questions that you can ask school staff to help clarify how the school is assessing and implementing the AT program for your child.

Assistive Technology Pointers for Parents was designed for you to use as a workbook. The next two sections are titled "Understanding Assistive Technology" and "Parents and Assistive Technology Decisions." They will provide you with basic information about assistive technology and the ways you can participate as

a member of your child's team. These chapters can also be used as a resource to provide other members of your child's team with basic information about the requirements of IDEA and the contributions various professionals might make to your child's use of assistive technology.

The chapters about each *Education Tech Point* are:

- ▶ Consideration and referral
- ▶ Evaluation
- ▶ Trial period
- ▶ Plan development
- ▶ Implementation
- ▶ Periodic review
- ▶ Transition

In addition to suggesting questions you might ask yourself and the other members of your child's team, each chapter provides stories and information about the ways other parents have worked with a team to identify needed assistive technology devices and services for their children.

References

Bowser, G. & Reed, P., (1995). Education Tech Points for assistive technology planning, *Journal of Special Education Technology*, 12 (4), 325–338.

Bowser, G. & Reed, P., (2012). *Education Tech Points: A Framework for Assistive Technology (3rd Ed.)*. Winchester, OR: Coalition for Assistive Technology in Oregon.

Understanding assistive technology

Assistive technology is a popular topic these days. Television and the press often feature stories on new and exciting technologies for individuals with disabilities. Many parents think of technology tools they hope might help with particular barriers caused by their child's disability. In addition, IDEA requires that every Individualized Education Program (IEP) team consider the child's need for AT.

Exactly what is assistive technology? It is anything that can help a person with a disability do something they cannot do without it. Anything? Yes, anything. A magnifying glass that makes print easier to see is assistive technology. Assistive technology is an extension on a light switch that allows a child in a wheelchair to turn on the light. It is the wheelchair. It is a sound system that makes it easier to hear what the teacher is saying. It is a pencil grip that helps a child better grasp a pencil. It is also software or an app that does something special such as speak the words on the device screen for someone who cannot read the print. It is thousands and thousands of items that help individuals with all sorts of disabilities and challenges. The sheer number of things that are considered assistive technology makes the selection and use of assistive technology a confusing task.

Sometimes it is easier to think about what assistive technology is not. It is not a person. A paraprofessional or a nurse is never assistive technology. It is not a strategy like a shorter assignment or a different location in the classroom, although accommodations like these can all be important and helpful for a child with a disability.

The definition of assistive technology in IDEA is:

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. (34 C.F.R. §300.5)

Why is it important for you to know about assistive technology? It is important because assistive technology can be a powerful tool for your child. It can compensate for all types of motor limitations, difficulties with vision, or hearing loss. It can compensate for less obvious problems with reading or writing or memory. The only thing assistive technology cannot do is help your child to do something that he or she is not cognitively ready to do. For instance someone could program wonderful, appropriate messages in an augmentative communication device, but if your child does not understand those messages, does not have a desire to use them and never activates the device, it will not help him communicate. Assistive technology is most appropriate when a child wants to do a task, is trying to complete it, but is not able to because of a specific limitation or difficulty. This is where AT can make a significant difference.

The range and number of items of assistive technology is staggering. The Abledata database of assistive technology (<http://www.abledata.com>) now includes nearly 40,000 entries. That excludes all of the simple, easy to make devices and the things that were not made to be assistive technology, but improve a child's

function anyway. Talking picture frames and books that are often marketed every Christmas to give a recorded message to a loved one can be used as reading aids or communication tools. With the addition of picture/symbols and prerecorded messages, talking picture frames can turn into an inexpensive voice output communication device for a child whose speech is limited or not easily understood.

When choosing from the vast array of devices, it helps if you think about AT in terms of the functional tasks for which it is used. Assistive technology can help with spoken communication, written communication, mobility, seeing, reading, eating/feeding, hearing, dressing, playing, etc. For all of these tasks and many more, there is a variety of assistive technology that ranges from the very simple “low” or “no” tech items to higher tech, computer based devices. Assistive technology applications are available for all disabilities, all ages, and all levels of functioning. In addition, new assistive technology is developed every day.

To learn more about different assistive technology devices and tools, go to a website such as the one at the Family Center on Technology and Disabilities (www.fctd.info/show/home) or the Maryland Learning Links (www.marylandlearninglinks.org/3815). A short sample list of assistive technology tools is also included in Appendix A.

IDEA also requires the IEP team to consider whether your child needs assistive technology services to support the assistive technology selected by the team. Assistive technology services are things that people do to make sure the assistive technology is available, works as it is intended to work and the people who need to know about the assistive technology (including you and your child) have the information they need. IDEA lists the following

common examples of assistive technology services that might be provided to children in support of an IEP or IFSP (Individualized Family Service Plan).

- (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, retaining, repairing, or replacing of 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 and technical assistance for professionals and others involved (including individuals providing education or rehabilitation service), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of children with disabilities. (34 C.F.R § 300.6)

AT Pointers for Parents is designed to help you, the parent or advocate for a child with a disability, navigate the process of requesting assistive technology, identifying appropriate technology to help with problem tasks and

helping your child to learn to use assistive technology effectively. You and your child's team will begin by identifying the task or activity that your child needs to be able to do. For example, you might ask, "Is there a tool that will help my child to:

- ▶ communicate likes and needs?
- ▶ produce legible written work?
- ▶ transition from one activity to another?

This first step on the road to AT success for your child can be the most important one. While IDEA requires all IEP teams to consider whether a child might need assistive technology

to accomplish educational goals, it is too late to begin to think about AT when the IEP meeting is in progress. Beginning conversations about AT with other team members as soon as you are aware of places in your child's educational program where the current instruction, accommodations and modifications are not sufficient is much more beneficial. *Assistive Technology Pointers for Parents* describes a process and a series of questions to help you work with school staff to identify, obtain and effectively support the use of assistive technology for your child with a disability.

Parents and assistive technology decisions

Parents are an important part of every child's IEP team. A team of people who know about your child and your child's disability make all decisions in special education. That team *must*, by law, include the child's parents. When the team is considering assistive technology for your child, you can contribute much as a team member. You know what your child likes and dislikes and how your child is likely to react to a particular tool or a new situation. You can provide information about your child's skills and abilities. You can offer information about what has already been tried with your child. Finally, you can raise thoughtful questions and work directly with other team members until you find the answers.

How do you find out what might work for your child?

Finding out about assistive technology in general is one thing, figuring out what might help your child with specific tasks is another. The best place to start is with your local school district or service provider. You can work with your school district or early childhood education agency to identify, acquire, and help your child use assistive technology.

To start the conversation, talk with your child's teacher and try to determine if he or she is familiar with assistive technology. Ask how assistive technology is being used in your child's classroom and ask to see some examples. One of three things will happen: 1) the teacher will show you several things that are being used in the classroom or in the school, 2) the teacher will refer you to another professional who may

take the lead role in the provision of assistive technology, or 3) the teacher may not have any information about assistive technology. If you get a "3" type of response, ask who in the school or agency is familiar with assistive technology.

If you have trouble finding a person who can help you and your child with assistive technology go to the principal or special education director and ask about the district resources for AT. Ask how the district provides AT services. If nobody in the school or agency is well informed about assistive technology, share the information from this guide and ask if you can be part of a task force or work group to develop a plan to help your child's service providers become more familiar with assistive technology

Ways that different team members can help to address assistive technology

Because assistive technology is a broad field that includes a wide variety of devices, from simple no-tech and low-tech items to extremely complex computer based devices, team members may come from several disciplines, including physical therapy, occupational therapy, special education, and speech/language pathology, and teachers who specialize in vision impairment or hearing impairment. Individuals from any of these disciplines could be involved in the provision of assistive technology services. Each team member brings a specific set of skills that can be applied to questions about your child's need for and use of assistive technology.

Team members

Membership of the team may vary depending upon the specific needs of your child. Provided below is general picture of how each team member can contribute to the discussion of your child's assistive technology services. This list is a sample of the people who might be on your child's team and is intended to help you think about whether you need their expertise in thinking about your child and AT.

Student or child: The child, who is able to understand and contribute, can be an invaluable problem solver as the team works to determine what AT, if any, might be of help. As soon as a child can understand the discussion, he or she can be included on the team.

Parent: Parents are the overall experts about their children. They have seen them learn and grow. They understand how their children respond in many situations and know their interests. A parent spends more time with the child than anyone else and is there in many environments outside of the school. Until the child is able to participate in the IEP team, the parents speak for their child.

Occupational therapist: Occupational therapists (OTs) are traditionally knowledgeable about fine motor development, visual, sensory and spatial perception, and independence in daily living activities. OTs are key in recommending the location or position of AT devices and determining the most likely means of accessing devices. OTs often have skills in designing or recommending adapted computer access, planning and sometimes guiding keyboarding instruction, and adapting or constructing equipment.

Physical therapist: Traditionally physical therapists (PTs) are knowledgeable about gross motor development, posture, seating/positioning, functional mobility, gait training, wheelchair skills, and muscle strengthening. In assistive technology service delivery, the physical therapist recommends devices and implements training related to mobility needs. In addition, the physical therapist is a key person in adapting and constructing mobility, seating, and positioning aids.

Speech-language pathologist: The speech-language pathologist's (SLP's) role centers around language development and use, as well as articulation, voice quality and fluency. In assistive technology they are the key source of information and expertise about augmentative/alternative communication devices and their selection and operation. They are critical in the selection of vocabulary and designing content and layout of communication boards and overlays. The SLP suggests ways to maximize a student's speech, language, and communication opportunities throughout the day.

Special education teacher: Special education teachers have expertise about academic demands of the educational program, cognitive development, play/social development, behavior management, pre-vocational and vocational skill development, and academic instruction. In AT the special educator is essential in identifying opportunities for use of AT in a child's daily schedule, implementing, supervising, and training the student to use the device, and integrating the use of the device into the curriculum. For some students, specific expertise will also be needed from teachers

of students with visual impairments and teachers of students with hearing impairments to ensure that appropriate consideration is given to specific adaptations and modifications that these students might need.

School/educational diagnostician:

The school psychologist/ educational diagnostician is skilled at providing necessary evaluations and assessments to determine a child's cognitive functioning while taking into account physical disabilities and behavioral characteristics. In AT, the school psychologist/educational diagnostician provides suggestions about a student's learning style, cognitive ability, and behavioral expectations in relation to device selection and use.

General education teacher:

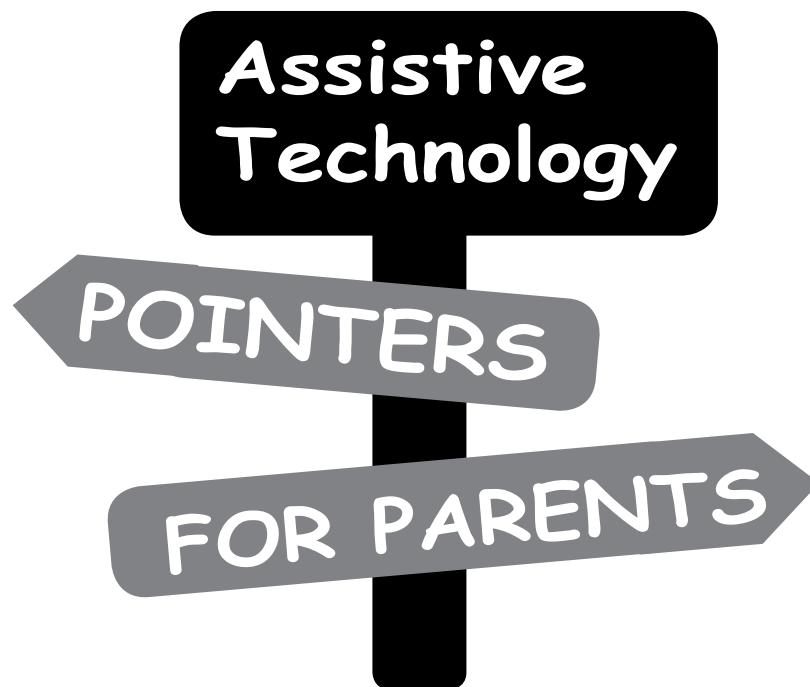
The general education teacher has an understanding of the curriculum and the scope and sequence of skills taught in the general education classroom. They help determine where and when AT might be used as an accommodation during instruction, independent seatwork, assessment, and other activities in the classroom. When students need Accessible Instructional Materials (AIM), general education teachers are the primary implementers.

School district representative:

The school district representative is the person authorized to commit resources to purchase equipment, assign staff and provide training. They may make other administrative decisions needed in order to implement the use of assistive technology in your child's program.

Assistive technology specialist: An AT specialist is a service provider who has spent extra time and effort to learn the use and operation of a variety of assistive technology devices. AT specialists are typically teachers or therapists who have developed this interest through their work with children with disabilities. The AT specialist, if one is available in the district or through a contract from an outside agency, can be instrumental in determining specific technologies that may be appropriate because of his or her knowledge of unique features, limitations, and compatibility of various hardware and software.

For members of any team to work effectively together, it is important to recognize the unique contribution each team member can make. Team members may need to spend extra time talking together about the particular information they can contribute. As a parent, you can facilitate this by asking questions about each member's strengths, interests, and potential contributions to your child's use of AT.



Parents and *Education Tech Points*

Each of the following chapters discusses one of the *Education Tech Points*-places where your child's team might talk about assistive technology questions. At the beginning of each chapter, you will find questions to ask yourself and to ask other team members as you participate in the discussion.

Following each question are examples of how two families used *Education Tech Points* to help them work effectively with the school team. Next, you will find some general information about assistive technology concerns at that specific point in the special education process.

The final page of each section includes a worksheet that you can use to help organize your thoughts and record information to share with other members of your child's team when you talk about assistive technology. Worksheets are provided in a question format because

questions are an excellent way to initiate conversation. When asked in a curious and non-threatening manner, questions can lead to positive discussions that encourage everyone to contribute their thoughts and ideas. The questions in each worksheet are the ones that parents say have been the most useful for them at each stage of AT selection, acquisition and use. You will probably think of others that fit your situation and there is room at the bottom of each worksheet for those.

Teams work best when they share a common pool of information. As you work with *Assistive Technology Pointers for Parents*, feel free to share information from the workbook with the other members of your child's team. While we hope that you don't make copies of the whole workbook for other people, we don't mind at all if you copy selected pages to share with others.

Education Tech Point #1:

Consideration and referral

Every child's IEP team is required to consider whether that child needs assistive technology devices and services as a part of the special education program. The most common way to do that is to discuss it during your child's annual IEP team meeting. But if you or another team member thinks your child's learning difficulties might be helped by the use of assistive technology, you can ask the team to meet to talk about introducing AT at any

time. Sometimes teams even consider a child's need for assistive technology at the same time that they are deciding whether the child is eligible for special education services. The first *Education Tech Point: Consideration and referral* offers you some questions that you can ask yourself and other team members if you believe it is time to begin to consider whether your child needs assistive technology.

Consideration and referral questions

When I begin to think that my child may need assistive technology, I should ask myself:

- ▶ What are the specific problems my child encounters in school (such as: reading assigned text, writing clearly and legibly, seeing written words, speaking clearly, communicating needs and interests)?
- ▶ What evidence do I have of these difficulties?
- ▶ What are we doing at home to try to help?

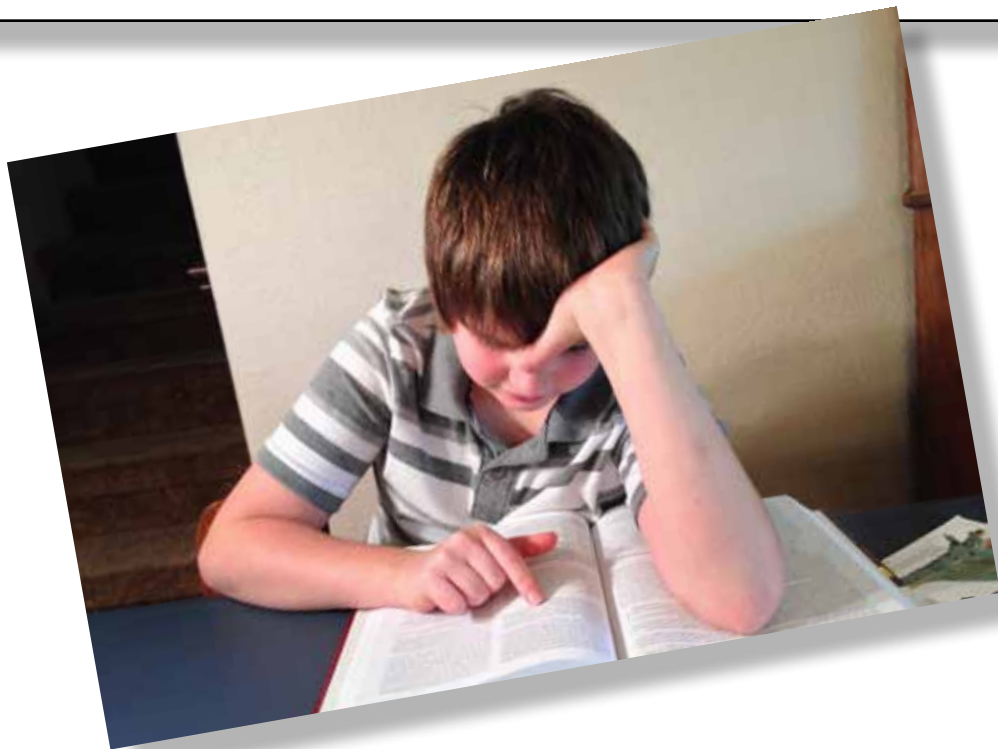
I should ask the service providers:

- ▶ Could my child perform better if the way he or she does the difficult tasks was changed?
- ▶ Are you aware of any assistive technology that helps children with difficulties like the ones my child has?
- ▶ If you are not aware of any AT that might help, who in the district knows about assistive technology? How do we contact that person?
- ▶ What assistive technology, if any, has my child tried? How did it work?
- ▶ How do I start the process of determining what assistive technology might help my child with this problem? Is there a form I need to fill out?

Jasper: Consideration

Joy contacted the resource room teacher to inquire about assistive technology to help her son, Jasper, who was struggling in all of his subjects. Jasper has a learning disability in the area of reading and was overwhelmed with the reading assignments in his fifth grade class. He was never able to complete the assigned reading at school and brought home a backpack full of books each night so his family could help him by reading them to him. Joy and her husband spent three or more hours each night trying to help their son. They felt sure that if there was something that could assist him in reading the textbook initially, Jasper could use his time for more effective studying and to complete written assignments.

Joy asked the teacher how they could look for ways that reading assignments could be changed to help Jasper get information from his textbooks with less difficulty. She asked questions about any technology the school had tried already and how it had worked for Jasper. With the teacher's help Joy filled out a form to request that the school district consider Jasper's need for assistive technology. Then they scheduled a mid-year IEP meeting so that all the members of Jasper's team could begin to share ideas and information. Although they discussed several possibilities they did not feel they could reach a well informed decision and decided to initiate an AT evaluation.



Madison: Consideration

Diana and Dave's daughter, Madison, had just entered kindergarten. Madison had been enrolled in Early Intervention and Early Childhood Special Education from a very early age because she was born with cerebral palsy (CP). Madison's CP made it necessary for her to use a wheelchair and she had some difficulty using her hands. The new school was willing to provide many accommodations for Madison's physical disability and Diana and Dave were very pleased with the fact that she was attending a regular kindergarten class.

Despite their excitement about Madison's kindergarten placement, Diana and Dave were concerned about Madison's speech. The CP made it hard for her to use the muscles people need to produce speech. As a result her speech was slurred and difficult to understand. Diana and Dave understood her most of the time but they were pretty sure that her new classmates would not know what she was trying to say.

They talked to several people on Madison's team about this problem. The speech therapist felt that Madison would be able to learn to speak more clearly with lots of individual speech therapy. The OT knew of some kinds of technology that could talk for people, but she did not know much about them. She wondered if Madison might need one of those. Diana and Dave even looked on the internet to find parents of other children with severe speech difficulties and gather other opinions.

After they looked into things, Diana and Dave took several steps. First they asked Madison's special education teachers to begin to try things they already had in the classroom that might help Madison communicate with people who did not know her well. Second, they asked for an IEP meeting to talk about Madison's communication needs and explore ideas that might help her talk to new friends in Kindergarten. Finally, they decided to request a formal assistive technology evaluation to determine whether Madison might benefit from a communication device. They completed a formal request and stated that the reason they were requesting an AT assessment was that Madison's speech was not clear enough for her classmates to understand her. They also asked the team to help identify tools and strategies that might help with this problem. They specifically asked the school district to look into the benefits of a technology device that would speak for Madison.

Consideration and referral:

How do I request AT for my child?

Whether or not you find that the service providers who work with your child are knowledgeable about assistive technology, the way to find out what tools could help is to request an evaluation of his or her assistive technology needs. For every child from birth to age 21 who receives special education services, IDEA requires that the child's IEP or IFSP team consider whether or not he or she needs assistive technology. Because raising the question of assistive technology for the first time during an IEP or IFSP meeting may catch other team members unprepared, it is better to alert them ahead of time about your interest in AT. Decisions about AT must be made based on information about what might work for your child just as decisions about reading instruction must be based on information about your child's reading skills. Talk with your child's teachers and other team members before you meet so that they collect appropriate information, begin to try things, and share ideas. Solutions may be already available that have not yet been tried. You and other team members could begin to try them to see how they work before you have an IEP/IFSP meeting. After the team tries things, if you still need more information, you can ask in writing for an evaluation of your child's need for assistive technology.

When you work with your child's teacher to begin to look at your child's need for assistive technology, you have the opportunity to

provide some of the very specific information that you, as an expert about your child, may have. Don't just say, "I want AT for my child." Help focus the discussion by identifying the functional area in which your child is having difficulty. Functional areas include talking, reading, writing, walking, eating and any other skill that a child might use throughout life.

If you are completing a formal referral and asking to bring in new people with expertise to your child's team, identifying the functional area is not enough. Being as specific as possible about the kind of change you want to see for your child is important. For example, do you hope your son will be able to communicate his needs? Do you want your daughter to be able to write more legibly? Does your child need to hear text read aloud in order to understand it?

Once you have identified the problem, ask whether there are additional strategies, accommodations or modifications that might help your child with this problem. But you should also remember to ask *specifically* whether there is assistive technology that might help with this problem. While there may be simpler strategies than the use of AT that could actually work better for your child, if you ask that AT be one of the options the team looks at, you'll be able to feel confident that your child's educational team has truly considered AT and arrived at the most appropriate solution for your child.

Consideration and referral worksheet

My thoughts and observations

Problems that I am concerned about, such as;

- ▶ My child does not understand what he reads when he is reading the science book.
- ▶ My child writes so poorly that even she cannot read what she wrote.
- ▶ My child has trouble transitioning from one activity to another and gets very upset.

Things we are doing at home to try to help with this:

How these things are working:

Solutions that have been tried in the past and results:

My questions for other team members

Could my child perform better if the way he or she does the difficult tasks was changed?

Are you aware of any assistive technology that helps children with difficulties like the ones my child has?

If you are not aware of any AT that might help, who in the district knows about assistive technology? How do we contact that person?

What assistive technology, if any, has my child tried? How did it work?

How do I start the process of determining what assistive technology might help my child with this problem? Is there a form I need to fill out?

Additional questions and thoughts I want to share:

Education Tech Point #2: Evaluation

Your child's need for AT might be evaluated as a part of his or her eligibility for special education, or, once your child is eligible, may be evaluated separately. As discussed in the previous chapter, parents have a right to request an evaluation of their child's AT needs. The team members who work with the child will respond to that request. Three things can happen. The team may decide they have enough information to make a decision about AT. They may decide to carry out an evaluation

themselves. Or, if they feel unable to make an AT decision, they may invite other individuals or specialists to join the team to help evaluate your child's need for AT. Some school districts have assigned people to a centralized AT Team that may manage or assist with this evaluation. No matter how the team proceeds in assessing your child's need for AT, you, as a parent, are an important member of your child's IEP team and should have a role in the AT evaluation process.

Evaluation questions

When my child is being evaluated for the need for assistive technology, I should ask myself:

- ▶ How do I think my child could better demonstrate what he or she can do?
- ▶ How have the things we have tried at home helped difficult tasks?
- ▶ Have I seen any technology that I think might help my child with difficult tasks?

I should ask the service providers:

- ▶ What AT might help my child be able to accomplish the specific task that is difficult for him or her?
- ▶ Is there someone on the team who knows about the AT tools that might be effective for a child with my child's specific difficulties?

Jasper's evaluation

Jasper's team has scheduled a mid-year IEP meeting so that all the members could begin to share ideas and information. They have decided to initiate an AT evaluation because they need more information.

Individuals from Jasper's team worked to help define the difficulties and the reasons for them. They observed him in the classroom and assessed his comprehension under three conditions (silent reading, reading aloud, and listening when someone read to him). Later, his mother, Joy, met with the teacher and reading specialist to discuss her concerns regarding Jasper's reading. She asked if they were familiar with any kinds of assistive technology that might help Jasper. The reading specialist said he would try several technology tools to see if they could help Jasper complete his reading assignments more quickly and effectively. He and Jasper tried recorded books and, also text spoken and highlighted by the computer (digital text). They found that he understood the material better when he heard the text read aloud. When they compared the two ways of listening to the textbook, they decided the recorded books were somewhat slow and difficult for Jasper to navigate. On the other hand, he was able to use digital text effectively to get information because the words were highlighted as they were read aloud. Jasper told his mom that he particularly liked being able to check his own understanding of what was read by playing back parts he was not sure about.

At the same time as Jasper and the reading specialist experimented with high-tech assistive technology, Jasper's resource room teacher also tried some new strategies to help him read more efficiently. These included enlarging the size of the print and color-coded highlighting of important words and sentences.

Jasper's team met to discuss the data they had gathered. The reading specialist brought some information about text-to-speech technology to share. The resource room teacher reported highlighting key words and concepts in Jasper's reading materials was helpful. She gave Jasper a talking spell checker and Jasper could type in individual words that he didn't understand and hear them pronounced. The teacher also stated she was concerned because they could not highlight library books. The fifth grade teacher mentioned she used removable colored flags from office supply stores and the team agreed that they should be used to highlight library books when Jasper needed to locate specific information for assignments. The resource room teacher agreed to get some of the flags, help identify the key concepts and work with Jasper on how to use them during their time together in the following week.

Joy was pleased with these beginning steps and was most excited to explore using the computer to read textbooks to Jasper. Since Jasper had only used text-to-speech twice in the reading specialist's office, the team agreed to try using it in the classroom and at home in order to investigate its usefulness for longer assignments. They also felt that they needed the help of someone who knew more about computers and scanners to decide which specific text-to-speech tools might work best for Jasper. Joy decided to make sure that Jasper's dad, John came to the next planning meeting so he could learn more about what they were planning and how Jasper might be able to use the technology at home, too.

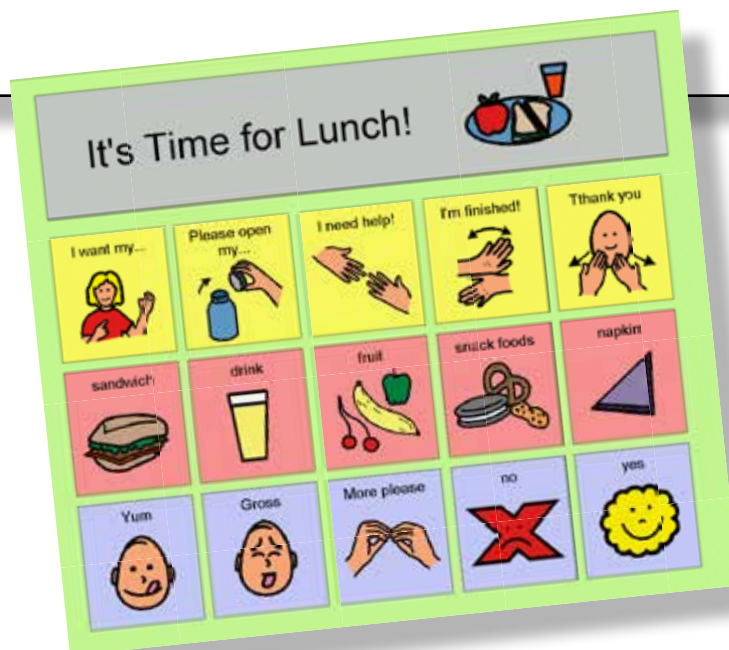
Madison's evaluation

Diana and Dave have asked for an IEP meeting to talk about Madison's communication needs and explore ideas that might help her talk to new friends in Kindergarten. They have also requested, in writing, a formal assistive technology evaluation to determine whether Madison might benefit from a communication device.

Because the AT questions for Madison were about her ability to speak, her speech therapist took the lead in doing an initial evaluation for augmentative communication. She visited Madison's kindergarten class and noted the instances when other kids had the most trouble understanding her. She also collected data about how much interaction Madison had with friends in free-play times and during lunch. By the time she was finished collecting this information she had spent quite a lot of time in Madison's classroom.

At the next meeting of Madison's team she reported that she really agreed with Madison's parents, and that Madison needed some help with communication in Kindergarten. Madison's speech was improving but she really could not wait until her speech became easier to understand, to talk with new friends. The SLP suggested that they try some picture boards that Madison could use during activity time. When someone could not understand her, she could point to the pictures to make her communication more clear.

Diana and Dave were disappointed. They asked the district to look into the use of a voice output communication aid for Madison, but the speech therapist was recommending pictures. They pointed this out and asked again that a communication device be considered. The speech therapist stated the kind of device they were talking about was called an alternative and augmentative communication (AAC) device and that, although she really did not know much about them, she was willing to do some research. Madison's OT said she sometimes worked with a specialist from the county education agency who knew about assistive technology. The team agreed to invite the AT specialist to join them as they explored AAC devices for Madison. They decided to try the picture cards before the next meeting with the AT specialist.



Evaluation: What should I expect to happen?

An effective AT evaluation includes a process that involves parents and other team members working together on a series of clearly identified tasks. There is no quick, easy answer to which assistive technology, if any, will help your child. Also, no single *expert* will know exactly what will work. Rather many individuals have important pieces of information. When they bring that information together, it will begin to point in some general directions for AT. A good AT assessment process includes discussion of the tasks with which your child struggles, observation of your child in environments where he or she usually spends time, and opportunities to try some different assistive technology (starting with the simplest) to see what works and what appeals to your child. There can be a marvelous assistive technology tool out there, but if your child rejects using it then it may not be the right solution at this time.

The team that conducts an AT assessment might be the educational team you work with every day. Some districts have special AT teams that may be called in to work with your child. No matter who conducts the assessment, you should expect to be part of the process from start to finish. The assessment should focus around this question: “What functional task do we want this child to be able to do which he or she is unable to do at a level that reflects his or her skills and abilities?” You should be asked to help identify the tasks that are most challenging for your child and to help choose which one to focus on first. You should help gather data by playing with or working with your child and noting things that are challenging. You should

be part of the discussion as the team (which includes you) brainstorms about what kind of things might work and where to get what you need for a trial period. You should, again, be one of the people gathering data as different things are tried. Finally, you should be part of the follow-up discussion about what seemed to work best and should be provided on a long-term basis. If this sounds like a lot of meeting and discussing, you are correct. Even those who have been involved with AT for many years find this process to be much like solving a puzzle. You have to keep experimenting and trying different things until you find a workable solution. It takes time.

Another of your roles as a parent is to know what technology, accommodations, and modifications your child already uses and make sure that the evaluators are aware of them so that they are available during times of evaluation. If your child already has assistive technology, be sure to bring it along to any scheduled evaluation sessions so that your child can use it and demonstrate its effectiveness. It’s also important you know what other AT devices have been tried in the past and the reasons they were rejected. You are the one with knowledge about your child’s history, even educational history. You are also the only one on the team who sees your child in some of his or her customary environments. Since AT may be used in a variety of environments, it is an important part of the process for you to contribute information about what works or does not work for your child in the non-school environments where you are present, so the technology can be functional in those environments.

Evaluation worksheet

My thoughts and observations

Things we could do at home that might help my child perform difficult tasks:

Ways I think my child could better demonstrate what he or she can do:

Technology I have seen that I think might help my child with difficult tasks:

My questions for other team members

What AT might help my child be able to accomplish the specific task that is difficult for him or her?

Is there someone on the team who knows about the AT tools that might be effective for a child with my child's specific difficulties?

Additional questions and thoughts I want to share:

Education Tech Point #3: Trial period

The only Tech Point action step not specifically mentioned in IDEA is a trial period. But, trial periods of AT devices give such valuable information about how AT might overcome barriers posed by a child's disability; it was valuable to include in the *Tech Points* framework. Sometimes a trial period happens as a part of the AT evaluation. At other times, the team is able to decide that the child needs AT but uses the trial period to choose the specific device.

An assistive technology trial period is a little like a “test drive” of a new vehicle. When you look for transportation, you think about what you want to do with the vehicle, what features it needs to have, and how you will use it on a daily basis. After you decide on those things, you go to places that have vehicles with those features and drive some until you find the one that works for you. Trial periods of AT allow you and your child to “test drive” AT until you find the device or combination of devices to meet your child's needs.

Trial period questions

When my child is trying out AT to find out if it might help with difficult tasks, I should ask myself:

- ▶ What does my child say to me about how he or she feels about the AT?
- ▶ What changes in my child's performance am I seeing at home while my child is trying this AT?
- ▶ What changes in my child's attitudes am I seeing at home as a result of trying this assistive technology?

I should ask the service providers:

- ▶ How long do you expect the trial period to take?
- ▶ Who is managing my child's trial use of AT?
- ▶ In what environments will my child need to use AT if the tool(s) turns out to be a good one(s)? Will this AT be tried in each of those environments?
- ▶ By what date do you expect to know which AT device(s), if any, will work for my child?

A trial period for Jasper

The team has agreed to let Jasper try using text-to-speech in the classroom and at home to investigate its usefulness for longer assignments. They have asked for the help of a specialist who knows more about computers and scanners to decide which specific tools might work best for Jasper. Joy has also decided to make sure that Jasper's dad, John came to the next meeting so he could learn more about what they were planning and help with it.

The educational team reviewing Jasper's need for AT asked the media specialist for the school to join the group. In the library where she worked, there was a scanner that students could use to add pictures to their term papers. She told the team in order for a computer file to be read as text when it was scanned into the computer, a type of program called scan and read software or optical character recognition (OCR) software was also needed. The school had programs like that but the media specialist had never really used them with students. She promised to give them a try. Someone also suggested Jasper might be able to use similar software on a mobile tablet device if they could get the textbooks into file formats and loaded into it. The resource room teacher said she wanted Jasper to try text-to-speech software for a longer period of time and with real assignments before they decided it was the right approach to help him get information from print.

Everyone agreed to keep data on how often Jasper used text-to-speech software and how it was working. They made an agreement that the trial period would be successful if three things happened:

1. Jasper was able to correctly answer more comprehension questions at the end of the chapters in his science and social studies books.
2. Jasper spent less time on homework after school every night than he had been spending before he started using AT.
3. Jasper expressed satisfaction with the results of using of the AT.

The team also agreed to keep data at school and at home on all three of these items and they agreed on the kinds of information each one of them would collect.

Following the trial period planning meeting, Jasper's reading assignments were scanned into a computer for two weeks using the scanner in the school library. The resource room's computer was set up with a talking word processing program that could speak any of the words he did not understand. Within the first few days of that two week trial, Jasper began to demonstrate increased understanding of the reading material and to perform significantly better on quizzes, tests, and class discussions. He actually did less reading because he was learning to use the computer, but he had a better understanding of the material the computer read aloud to him. He was excited about using the computer at school and reported that he liked it, especially for social studies. When the trial period was over, Joy and John talked to Jasper's fifth grade teacher. They discussed the results of the trial period and effective strategies. Based on the discussion they felt assistive technology for reading should be included in Jasper's IEP. They scheduled an IEP meeting.

A trial period for Madison

Madison's speech therapist agrees with Madison's parents that she needs some help with her communication in Kindergarten to help her talk with her new friends. She has suggested that they try some picture boards that Madison could use during activity time. The team has agreed to try the picture cards before their next meeting and to invite the AT specialist to join them as they explore AAC devices for Madison.

Before the AT specialist met with Madison's team, she also observed her in the Kindergarten classroom. She noted Madison was already using the picture cards in group activities and they were really helping other kids to understand her when her speech was too slurred. One problem with the cards was Madison did not always have the right picture cards when she needed them. Predicting what Madison might want to say at lunch or during free play was difficult and so she had less interaction with other children during these times. Also, some kids did not want to stop what they were doing to look at the pictures.

During the next meeting of Madison's team, the AT specialist showed the team two different devices she thought might help Madison to communicate. Both devices had speech output (i.e. they spoke words out loud) and used pictures and words on the buttons as a cue for choosing words. She explained since Madison had not yet learned to read, she needed both. One device was lightweight and easy to carry but it had paper pages that needed to be inserted to let her say more words and that was hard for Madison to do. The other device was heavy and hard for staff to program but easier for Madison to learn. The AT specialist said she hoped Madison would be able to use the light weight but more difficult device since it would be more useful as she moved around in a variety of environments.

The team decided the best way to find out which was the right choice for Madison was to try the more portable device during free play and lunch for two weeks. If she could not learn to use it, they would try the second device. Dave and Diana asked whether teaching two devices to Madison would be confusing. The AT specialist felt Madison could handle them both if necessary but agreed to watch for signs of frustration. Dave and Diana agreed to collect data at home, too. The team filled out a trial period plan to make sure everyone had the same understanding of what they would be doing.

Excerpt from page 2 of Trial Period Plan	
Environment: Classroom Task: Free play Person Responsible: Joan B. Days to be used: 8 (2 wks. M-Th) Times to be used: 9:20-9:40	Environment: Lunch room Task: Lunch Person Responsible: Terry V. Days to be used: 10 (2 wks. M-F) Times to be used: 11:30-12:00
Device: Multi-talker Beginning date: Feb. 8 Minimum length of trial: 2 weeks Date for review of data: Feb. 24 Source of AT: district loan program Contact person for assistance: Scott M. Manufacturer: ABC Manufacturing Technical Assistance #: 920-555-1212	

Trial period: What should a trial period of assistive technology include?

The best way of determining which assistive technology might help your child is to try things out. Once you have an idea about AT that might work, trial use is essential in finding AT solutions that work. Trials with a variety of items to see what works effectively and what your child likes to use are a good investment of everyone's time and energy. Device trials can save you hours of frustration trying to use AT that is not right for your child and save money for the school district by not purchasing AT that will not be useful.

Trial periods may take only a week or two, or they may take several months. The length of time a device is tried depends on how many new skills your child needs to learn to use it, how fast your child learns, and how often the device is used. The trial period may happen as a part of the evaluation or it may happen afterwards. In Madison's case, the team decided she definitely needed AT, but had not yet determined exactly which device.

Sometimes a child will show a decrease in performance when he or she first begins to use an AT device. This does not always mean that the AT is the wrong solution. It may simply

mean that learning how to use AT is a new skill and tasks that require the new technology skills are temporarily taking longer.

It's important for team members to agree on the kind of changes in your child's performance they want to see as a result of AT use. In order to do that, many teams find it useful to develop a written plan for the trial. An example of an Assistive Technology Trial Period Plan form is included in *Appendix B*.

Your role as a parent in the trial period is to observe and report any changes in your child's performance or attitude you see at home. If your child is using the AT in the home as well as at school, you may also want to learn to use the AT yourself so that you can help your child to use it. It is very appropriate for you to ask how long the school staff expect the trial to last, who is managing it, and exactly what tasks and environments will be involved. Sometimes the AT does not work as expected and a trial needs to be stopped or revised. At this stage, the most important contribution you can make is to keep track of the reactions you see in your child so you can share them when the team meets to review results.

Trial period worksheet

My thoughts and observations

Changes I hope to see in my child's performance when using AT:

Changes in performance I am seeing at home:

Changes I see at home in my child's attitude (e.g. about school, school work, or about the AT he or she is trying):

My questions for the other team members

How long do you expect the trial period to take?

Who is managing my child's trial use of AT?

Will the AT be tried in each environment where my child will need to use it?

How will we decide if the AT is not working and the trial needs to be discontinued?

By what date do you expect to know which AT device(s), if any, will work for my child?

Additional questions and thoughts I want to share

Education Tech Point #4:

Plan development

Each year the IEP team must develop a plan for the next 12 months that describes the specific instructional goals for your child with a disability and the services that the agency or school district will provide to help him or her to

achieve those goals. IEP teams are responsible for determining every aspect of the IEP, including whether AT devices and services will be provided. This applies equally to IFSPs.

Plan development questions

When assistive technology is being included in the IEP, I should ask myself:

- ▶ Do I feel the results of the evaluation and trial period have pointed us clearly toward the specific assistive technology that could help my child?
- ▶ Does my child need to use this assistive technology at home as well as at school? For what specific tasks?
- ▶ If yes, how will the use of assistive technology at home impact our family?
- ▶ Do I need to know how to use the assistive technology my child is using? How much do I need to know?

I should ask service providers:

- ▶ For what specific tasks will my child use the assistive technology at school?
- ▶ When and how often will my child use the AT during the school day?
- ▶ How long should I expect to wait for the AT to be provided?
- ▶ What AT services and supports, if any, will my child need in order to use the technology effectively?
- ▶ When my child uses this AT in school, what will I have to do to support him or her?
- ▶ If my child uses AT only at school, how will I know how things are going

Developing a plan for Jasper

Jasper is successful with his new text-to-speech technology and likes using it, especially for social studies. Joy and John have discussed the results of the trial period with his teacher. The team feels that assistive technology for reading should be included in Jasper's IEP and they have scheduled an IEP meeting.

As they began to talk about how to include AT in Jasper's IEP, it was clear that Jasper, Joy and John were excited about the results of the trial period and so was Jasper's teacher. Since all of the equipment Jasper needed was already available in his school, the IEP team decided to write a plan for daily computer use into Jasper's IEP right away. The team agreed Jasper would use the computer to help him read text in science and social studies classes but that he would continue to work on his reading and language arts skills without the computer in other classes. The plan stated Jasper's teacher would spend time with the school librarian in order to learn how to use the computer system. The librarian agreed to teach one of the sixth grade library aides how to help out with scanning Jasper's science and social studies textbooks. Joy and Jasper both felt that he should learn to scan the files himself, but the team agreed he needed to learn the computer operation first. The team made a note that they wanted to include use of the scanner as a skill for Jasper's IEP in the following year.

Someone in the IEP meeting asked whether Jasper might be able to use some kind of mobile tablet device instead of a computer. The media specialist knew of mobile device apps with the ability to use text-to-speech, but nobody on the team really knew whether Jasper should use a tablet device instead of a computer. Because they might want to make this change in the IEP document later, the team decided to write about the features Jasper would need, rather than naming a specific device. Basically, all he needed was to hear words from his textbooks read aloud in sentences and see each word highlighted as it was read aloud. They indicated that this accommodation would be provided for his science and social studies reading assignments of more than two pages. Jasper mentioned that sometimes he needed to look up a word in his book and asked whether there was a way to hear definitions read aloud too. The team added a read-aloud dictionary function to the list of features he would need.

The team also made notes during the meeting that they would do further investigation about whether he could use mobile tablet technology and what their next steps would be. They agreed that Jasper did not need to wait for their research about tablets and Jasper would begin using the readily available technology until they identified a tablet and apps that could provide the needed features.

Present Levels of Academic Achievement and Functional Performance

Jasper is a bright student who grasps concepts quickly. He is fully included in his general education classroom with Resource Room support for reading provided 30 minutes daily. He especially enjoys science and excels at explaining concepts and experiments. Jasper has not met the grade-level standard on his state assessment and the tests show Jasper to be decoding at a 2nd grade level although his vocabulary and comprehension are above grade level. He becomes frustrated when reading grade level textbooks especially in social studies and science.

The IEP team must consider these factors as part of IEP development:

A. Does the student need assistive technology devices or services?
☒ Yes, services/devices addressed in IEP ☐ No

Student's Name: Jasper Sample

Date: 11/14/2014

School District: District 117

Service Summary (this section may be continued on additional page(s), if necessary)

Service	Anticipated Amount/Frequency	Anticipated Location	Starting Date	Ending Date	Provider e.g. LEA, ESD, Regional
Specialty Designed Instruction	Daily/ 30 minutes	Resource Room	11/14/2014	11/14/2015	LEA
Remedial Reading Instruction	2X week/30 minutes	Library	11/21/2014	11/14/2014	LEA
Computer Use instruction					
Related Services	Anticipated Amount/Frequency	Anticipated Location	Starting Date	Ending Date	Provider
Supplementary Aids/Services; Modifications; Accommodations	Anticipated Amount/Frequency	Anticipated Location	Starting Date	Ending Date	Provider
Electronic Textbook files in Science	Daily when reading is required	Science/SS classroom	1/5/2015	11/14/2015	LEA
and Social Studies classes	Daily when reading is required	Science /SS classroom			LEA
Use of classroom computer to read text					
Supports for School Personnel	Anticipated Amount/Frequency	Anticipated Location	Starting Date	Ending Date	Provider
Consultation from AT specialist	2 hours/month	Classroom or library	11/14/2014	11/14/2014	ESD

Developing a plan for Madison

The team has decided the best way to find out which AAC device was the right choice for Madison was to try the more portable device during free play and snack for two weeks. If she could not learn to use it, they would try the second device.

After two weeks of trial use of one AAC device, the AT specialist asked for another meeting. She reported Madison was using the device well during free play activities and that she saw no need to try the second device. She recommended that Madison's IEP be changed to include the use of an AAC device like the one she had been trying. The speech therapist expressed her continuing concern that Madison needed to learn to speak more clearly and everyone agreed that speech therapy should also be continued in the IEP. Training for the school staff and for Dave and Diana was also included in the IEP so that everyone would know how to use the new device. The team decided until she was more independent, Madison would only use the device at school.

The district's equipment loan program was able to loan the device to Madison's school for the rest of the year but said in the future, one would have to be purchased for her long term use if that was what she needed. The AT specialist told Dave and Diana their health insurance might fund a device for Madison and offered to help them with an application to the insurance company. The district representative agreed if insurance did not cover the device the school would provide one for Madison, including use at home because the IEP team had decided it would be needed.

Madison's revised IEP explained her need for and use of AT in several places including the present level of academic and functional performance, her annual goals and the section about support for staff (which included training they would need to support Madison's AAC device use). It also documented her need for continued speech therapy.

Measurable Annual Goals	Criteria	Evaluation Procedure
Madison will answer direct questions clearly with no more than one repetition of her response on eight out of ten opportunities using speech, picture cards, or AAC device.	8 of 10 questions during 1-1 time with staff	Weekly probe by instructional assistant
Madison will communicate with peers and adults using combinations of two or more words or understandable representations (e.g. word approximations, picture cards, or AAC device) with 90 per cent accuracy during three out of four trials.	3 of four trials During daily group time	As recorded by teacher
Madison will recognize times when she is not understood and use her AAC device during five out of ten of those opportunities to repair communication breakdowns.	5 of ten opportunities during free play.	Weekly by SLP observation during free time

Plan development: What do we write in the IEP?

IDEA requires assistive technology be considered in every child's IEP. As you can see from the previous sections, a lot of information should be collected before AT is actually included in the plan. If questions of assistive technology are raised for the first time during the IEP meeting and you feel your child might need AT, it is a good idea to use the time during the IEP meeting to begin to plan an AT evaluation rather than make an uninformed decision. Including AT that has never been tried in an IEP is very likely to create frustration for you and for your child.

The IEP form has a check box about your child's need for AT, but just checking the box that indicates AT is needed is not enough. Your child's IEP should be clear enough that someone who was not at the meeting would understand what is supposed to happen. If AT is needed, the Present Level of Academic and Functional Performance section in the IEP should describe his or her difficulties clearly enough that you can understand the reason AT is needed. You should also expect to see the use of AT described somewhere else in the IEP. Generally that will not be a goal about learning to operate the AT, but rather a description about how your child will use AT to access the curriculum or participate in activities.

Your child's IEP should also describe the services that will be needed to support use of AT. Every IEP contains a section that describes the services that will be provided to your child. This is usually a place IEP teams list the AT services and other supports that will be needed. An AT service might be training about the use of the device or the regular updates of

vocabulary. School staff might need to do a number of other things to support AT. The IEP generally addresses the overall categories of AT services (see page 8 for a complete list of AT services in IDEA) that may need to be provided to ensure that a child's AT will work for them.

There are also many smaller things that need to be done to support AT use. In Jasper's case, a student aide in the library scanned documents Jasper would use on his computer until he was able to learn to do it himself. These kinds of activities are usually not addressed in the IEP but are critical for effective implementation and will be discussed during implementation planning.

One thing you will probably not see in the IEP is the name of an AT device. Many tools can provide the support your child needs, and the one that meets your child's needs can often vary as your child's needs change, the curricular activities change, and new products come on the market. Therefore describing a device's features and what it is expected to do is more appropriate than naming a specific device.

In this section of *Assistive Technology Pointers for Parents*, it is assumed that an AT assessment was completed and your child's use of AT was determined to be beneficial. Once evaluation and trial period data have been collected, the team has enough information to develop a plan that can succeed. Sometimes the data show the AT you tried is not an appropriate solution to the problem. If this happens, you and the other team members might decide a non-technology solution is more appropriate or may decide to do further assessment.

Your role in plan development is to express your ideas and feelings about the AT, contribute information about what you see at home and bring up any concerns you have. Every IEP team member should keep in mind the long-term vision for your child and take steps toward that vision.

It is important for you to know AT is not automatically sent home. The IEP team is required by law to determine on a case-by-case

basis whether the AT that is being included in the IEP will be sent home with your child for use outside of school. If you believe the AT is needed outside of school, then make that request during the development of your child's IEP plan. The decision to send AT home is based on whether your child needs access to their AT in the home or other settings in order to receive a free and appropriate public education (FAPE).

Special Education Law and Assistive Technology

34 C.F.R. § 300.105 Assistive Technology

(a) Each public agency shall ensure that assistive technology devices or assistive technology services or both, as terms are defined in §§300.5 and 300.6 are made available to a child with a disability if needed as part of the child's

- 1) Special education under §300.36
- 2) Related services under §300.34; or
- 3) Supplementary aids and services under §300.38 and §300.114(a)(2)(ii).

(b) On a case-by-case basis, the use of school-purchased assistive technology devices in a child's home or in other settings is required if the child's IEP Team determines that the child needs access to those devices in order to receive FAPE (free, appropriate public education).

34 C.F.R. § 300.5 Assistive technology device

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. (Authority 20 U.S.C. 1401(1))

34 C.F.R. § 300.6 Assistive technology service

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. 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.

(Authority: 20 U.S.C. 1401(2))

Plan development worksheet

My thoughts and observations

My feelings about the results of the evaluation and trial period: (Have they pointed us clearly toward a specific AT solution for my child?)

My feelings about whether my child will need to use this AT at home as well as at school:

Things I would like to know about how to use the assistive technology my child is using:

Goals I think are appropriate for this AT use:

My questions for other team members

For what specific tasks will my child use the assistive technology at school?

When and how often will my child use the AT during the school day?

How long should I expect to wait for the AT to be provided?

What AT services and supports, if any, will my child need in order to use the technology effectively?

When my child uses this AT in school, what should I do to support him or her?

If my child uses AT only at school, how will I know how things are going?

Additional questions and thoughts I want to share

Education Tech Point #5:

Implementation

After an IEP team completes an assistive technology assessment and includes AT tools in a student's IEP, the work has just begun. Implementation planning, including strategies for classroom integration, daily schedules, and procedures must be addressed if AT is to

become a truly useful tool. Implementation planning is a time when parents can really help their children to learn new things and to be more independent in their daily activities and routines.

Implementation questions

When my child is using assistive technology, I should ask myself:

- ▶ What change, if any, does my child report to me about how things are going at school since he or she began using assistive technology?
- ▶ What changes, if any, have I seen at home since my child began using assistive technology?

I should ask service providers:

- ▶ What differences are you seeing in my child's performance with the use of assistive technology?
- ▶ Who at the school is providing support for my child's AT use?
- ▶ What problems are you having, if any?
- ▶ What documentation are you keeping about what is working and not working in relation to my child's assistive technology use?
- ▶ How is my child learning how to use the AT during school activities?
- ▶ Who will teach me what I need to know about the AT?
- ▶ What specific things do you think I need to know and why?

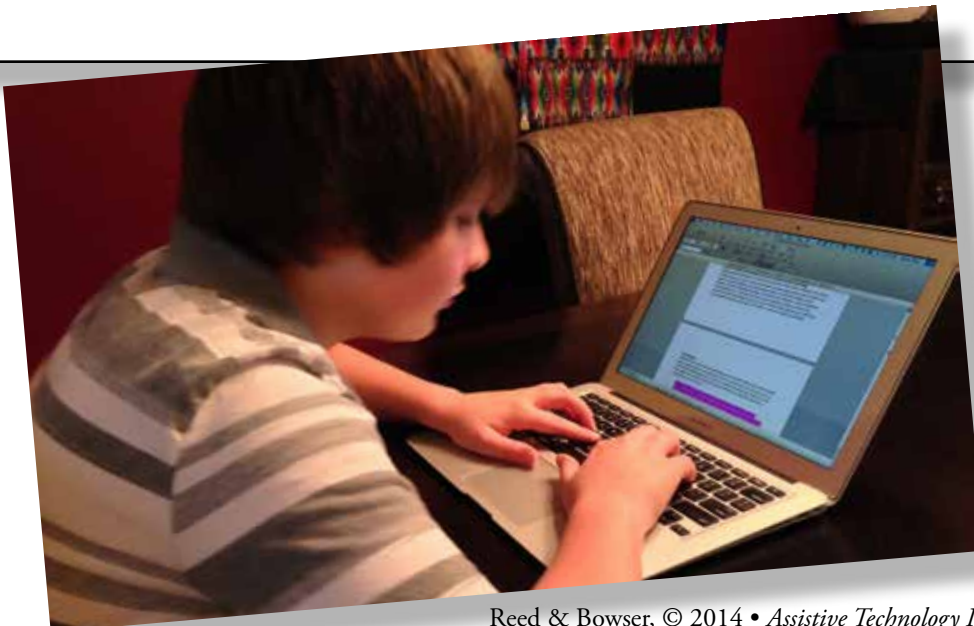
Implementation: Jasper's use of scanned computer files

Jasper has begun to use computer-based text-to-speech technology in school and it has been included in his IEP. The team is also working to identify a mobile electronic tablet and apps that could provide the features that Jasper needs.

As Jasper began to use the computer with his textbooks on a more regular basis at school, Joy and John kept track of what they saw at home. At first Jasper was excited about using the computer. In addition to trying the new device, he was getting lots of attention from his friends and the adults who were helping him. He was more relaxed at home, and had less homework to read every night. Everyone in the family was happy about that.

After about four weeks, however, Jasper started asking for more help with reading homework and seemed less enthusiastic about the assistive technology. Joy and John worried something had gone wrong. They asked to talk to Jasper's teacher and asked how things were going with the computer at school. Jasper's teacher reported that Jasper used the computer effectively, so Joy and John decided to talk to Jasper about the problem. He shared that he hated being the only one who had to go to the back of the room during reading time. After some discussion with Jasper's teacher, they agreed Jasper would be allowed to select two "reading buddies" who could use the computer and read-aloud textbook chapters with him each week.

After two more weeks, the reading buddies program had become so popular that the teacher wanted to include a second group of students to listen to their chapters. As she was looking into this, she discovered the social studies textbook was provided by the company in an online version that had both the read-aloud and dictionary features Jasper needed. Everyone on the team was thrilled. This meant all the students in Jasper's class had the option of reading their book in the traditional way or hearing and reading the material on the classroom computers. Jasper liked it better too because, even though he needed to use the read-aloud function every day, he was not singled out as different from the other students.



Madison's use of augmentative communication

Madison's IEP has been changed to include the use of an AAC device like the one she had tried. She is also receiving speech therapy. Until she becomes more independent, Madison only uses the device at school. Her parents and the classroom staff members have all received training on how the device works and how to help Madison use it successfully.

Even though Madison was scheduled to use the AAC device on a regular basis at school, things got off to a rough start. The instructional assistant who was assigned to work with Madison did not get any training on how the device worked. The AAC specialist had trained the teacher, thinking that the teacher would provide support to her classroom's staff members. But Madison's teacher did not feel she knew enough to train anyone else so she told the assistant to come to her with problems. In practice this was not possible since the teacher could not stop her work with 22 kindergarten children to examine Madison's device. In addition, while Madison had some words on the device she used often, she did not know how to locate most of the vocabulary she needed.

Diana and Dave came to observe one day and noticed that the AAC device never left Madison's backpack. They were disappointed and concerned that Madison still did not have an effective way to communicate with the other children and they felt as if the school staff was not really trying. They asked for another meeting.

During this meeting, it became clear that more planning was needed for Madison's use of the AAC device. The AAC specialist provided the team with an implementation organizer worksheet that helped them assign responsibilities for the implementation of Madison's program. (See Assistive Technology Implementation Organizer in Appendix B) The team worked through the questionnaire and found a number of things they needed to do in addition to training the instructional assistant. With a more complete implementation plan in place, Madison's device was available to her more often and she began to make rapid progress in understanding how and when to use it.



Sample Assistive Technology Implementation Organizer

2. What environments will the student use the AT device/software and how will it be made available? (e.g., move with the child, child will go to the device, on request, etc)

Environments (class, library, lunch, PE, etc)	Responsible Party in that environment	How it will be available?
Classroom	Classroom teacher	Available at all times in class
Lunch	Instructional assistant	Will carry it to lunchroom

3. Where will the device be located when the child uses it? When it is not in use where will it be located? Will the device be locked – if so where is the key located?

The device will be kept on the bookcase next to Madison's desk when she is not using it. There is a plug on that counter and it should be plugged in when not in use. This device is simple and does not lock. The instructional assistant will need to change overlays/vocabulary sets for Madison's participation in various activities.

4. Will the student need the device at home - ☐ Yes ☒ No

If no, will an alternative device be needed? If yes, how will it be transported home?

The device will only be used at school for now. In the future it will be needed at home and the district is Working with the family to make that happen.

5. Will adaptations or modifications to the device be needed to help the student access it? (e.g., key-guards, mounting devices, enlarged keys, etc)

Several keyguards come with the device we are borrowing. We believe they will be all that is necessary

6. Who will be responsible for device repairs? (e.g., school district, parents, insurance, Medicaid, etc)
If the device/software breaks – what is the back up plan?

School district-The AAC Specialist should be contacted if repairs are needed. There is a duplicate device in the short-term library that can be accessed if a backup system is needed.

7. Has the district purchased a maintenance agreement? If yes, where is it located? Who is the contact person?

One is already in place for the device being borrowed.

Support/Training: Student

Task	Person Responsible	Amount/Schedule	Evidence of Completion
Initial training	SLP	9/10 to 11/10, 2x week	Training log
Ongoing training	Classroom teacher and instructional assistant	Daily for 15 minutes	Data about daily device use
Daily/Regular Support of Student Use	Instructional assistant	Daily during group times	Data about group interaction
Daily/Regular Maintenance of Equipment	Instructional assistant	At the end of each day	Device charged and vocabulary entered daily
Communication with Family	Classroom Teacher	At least once per week	Communication book sent home from school
Parent/Family Training	SLP	9/19 and 9/25	Training record
Repairs/Modifications	AAC Specialist	As Needed	Device functioning

Implementation: How will I know when the AT is working?

Perhaps the most important question to ask about AT implementation is, “What is it we expect my child to be able to do now that he or she has this AT?” Ideally, the questions the team began the AT process with were, “What functional task do we want this child to be able to do that he or she is unable to do at a level that reflects his or her skills and abilities?” and “Is our expected outcome something that this child is developmentally ready to do?”

Once AT is chosen and implementation begins, other questions may arise. The team might discuss questions like, “How soon will the child be able to do the things AT was chosen to help with? Do we think he or she will be able to do them right away or is there a need for training?”, and, “If training is needed, how long will it take? Is the training only about operation of the device or does my child also need to learn other skills like listening for important content or how to frame a sentence?”

In addition to questions about how the AT will be used, teams need to think about the details of AT use. Madison needed to have her AT available all the time because it helped her to communicate when her voice was not enough. But, Jasper only needed his AT for some of his reading activities. The AT implementation plan your child’s team makes should help everyone to know when AT should be available and for which specific tasks it will be used.

Finally, it is important to learn how to use AT with other people. Both Madison and Jasper

used their AT in classrooms and other settings where there were lots of other kids. Madison’s AT helped her to be more social and do more things with her friends. But, at first, Jasper’s AT for reading textbooks and other instructional materials created barriers between him and his classmates. Once he told Joy and John how he felt about that problem, they were able to bring it to the attention of the team and changes were made in Jasper’s program that reduced the isolation he was feeling.

Questions like these are critical for the whole team to discuss because if parents have different expectations for the AT than other team members have, misunderstandings can occur. For example, if the team focuses all their attention on identifying a way for a child with severe motor limitations to operate a computer but there is not clear agreement about why the child will use the computer, there is potential for conflict that can impede the child’s progress.

When AT has been included in your child’s IEP, the real work has only begun. Well-chosen AT can help your child to overcome barriers to participation and learning, but until they are firmly established, new routines for AT use will take planning, scheduling, and monitoring. As implementation begins, your role as a parent is to look for the changes in attitude and listen to what your child has to say about the new tools. You can help the team to understand how things are going as you give feedback to the other team members and, if agreed upon, help to implement the AT plan at home.

Implementation worksheet

My thoughts and observations

Changes I have seen in my child's performance since using AT:

How my child feels and talks about using AT:

My favorite example or story about what my child is doing:

My questions for other team members

What specific things do you think I need to know and why?

Who will teach me what I need to know about the assistive technology?

What differences are you seeing in my child's performance with the use of assistive technology?

Are there any problems with the AT use?

Are there times when using the AT is not the best way for my child to complete this task?

How are the other students in my child's class reacting to the AT?

How are you keeping track of what is working and not working with my child's assistive technology use?

Additional questions and thoughts I want to share:

Education Tech Point #6: Periodic review questions

Periodic review is the regularly scheduled review of a student's progress in all areas. Your child's progress on IEP goals is reviewed and reported at the same time as progress reporting (report cards) for all students. If your child has a specific goal for the use of AT, progress on that goal should be reviewed at the same time as progress reporting occurs in the school. Sometimes AT might be included in your child's IEP but not be directly addressed in a goal (e.g. AT is listed as an accommodation). Your child's AT use would then be reviewed during the annual IEP meeting.

During periodic review, IEP teams analyze data about student performance and may adjust the specially designed instruction, related services, and accommodations and modifications based on the results of this analysis. The team asks questions about the quality, frequency, and effectiveness of his or her AT use. Periodic review may result in additional instruction for your child or other team members or adjustment to the services that support AT use. Sometimes, based on the results of the review, it is necessary to adjust the technology itself because your child's performance has changed.

Periodic review questions

After my child has used assistive technology for a while, I should ask myself:

- ▶ Is my child's assistive technology working in the ways I expected?
- ▶ What have been the benefits of using the assistive technology?
- ▶ What have been the drawbacks, if any, of using the assistive technology?
- ▶ If there were drawbacks, how do I think we can overcome them in the future?

I should ask service providers:

- ▶ Do you feel my child is making appropriate progress?
- ▶ What benefits or drawbacks do you see in my child's AT use?
- ▶ How has my child's academic achievement changed as a result of AT use?
- ▶ How has my child's functional performance changed as a result of AT use?
- ▶ What evidence do you have to support these changes?

Reviewing Jasper's AT use

At first Jasper was excited about using the computer but the team soon discovered that he was feeling isolated when he worked alone on the computer. When he became resistant to using it, the classroom staff established a reading buddies program that became so popular that the teacher found a way to provide all the students in Jasper's class with the option of reading their book in the traditional way or hearing and reading the material on the classroom computers. Jasper likes it better because he is not singled out as different from the other students and the technology is, once again, helping him to complete assignments more quickly and independently

During the next review of Jasper's IEP progress, the educational team agreed the use of the computer to speak the text made a huge difference. In addition to better success in science and social studies classroom work, Jasper achieved a significant increase in reading comprehension scores. The teacher noted Jasper used the talking feature of the computer less often because his reading was better and faster. Making the computer talk took time, so he learned to use the read-aloud function strategically, and could identify when he needed it.

The question of using a mobile tablet was also addressed during the meeting. The school's librarian reported she talked to several people and discovered that it was, in fact, possible for Jasper to read his textbooks using tablet technology. She also learned the middle school had sets of a particular kind of tablet technology available for teachers to use in classroom activities. The team agreed they needed to contact someone at the middle school to find out whether there were already students who used tablets for access to their textbooks and whether it would be possible for Jasper to do that.



Reviewing Madison's augmentative communication use

Madison's team has found a number of things they needed to do to make it possible for her to communicate more successfully when she uses the AAC device. The changes helped the classroom team make sure that Madison's device was available to her more often and she has begun to make rapid progress in understanding how and when to use it.

At the end of Madison's kindergarten year, the team met again. There were some surprises in store for everyone on the team. Madison's speech therapist reported she had continued taking data on Madison's classroom language and was happy to report that the other kids in her class were able to understand her oral speech much more often. The classroom assistant who worked most closely with Madison took data on her use of the AAC device and she reported Madison was also using it more often and with less prompting. As the team discussed these apparently conflicting results, it became apparent Madison had learned a lot about communication during the year. She had learned to speak more clearly and to speak in ways that her friends could understand but had also learned to use the AAC device to "repair" communication attempts when her speech was not understood. Madison had a lot to say and had learned ways to get her message across to everyone.



Periodic review: How successful has my child been with AT?

IDEA requires that each child's IEP goals be reviewed at least once a year. Periodic review of your child's AT program can happen at the annual review time or more frequently if your child's AT use changes more rapidly or creates unanticipated problems. Your role as parent is to report what you see at home, keep your original goals in mind and ask the team to meet again if you see problems that cannot wait.

If things are not going well, it may not mean the team has made a bad decision about the AT. We know from studies of the reasons people abandon their AT, that environment, personality and the support of people in the environment have a good deal to do with whether technology gets used or not. Sometimes the use of assistive technology creates new problems that could not be anticipated. If your child is using her hand for the first time it may cramp because she is using her muscles

in a new way. In this example, when Jasper used his new assistive technology solution, he began to feel isolated from his classmates. The team made changes in his program to help eliminate the isolation while still implementing the AT program. When the use of AT seems to contribute to unexpected problems, you may want to ask for a meeting with the team or with your child's teacher to discuss them.

Even when the use of AT is going well, it is still necessary to step back and think about the big picture during the annual review. It is a time when you should think about whether things are on the right track, whether your child is accomplishing what you had hoped, and what the benefits and drawbacks are in using the AT. It is also a time when you might think about whether your child needs support for other tasks and if there is new or different technology the team should think about.

Periodic review worksheet

My thoughts and observations

Is the AT working for my child in the way I expected?

Benefits of the AT use have been:

Drawbacks of the AT use have been:

If there were drawbacks, my ideas for overcoming them in the future:

My questions for the other team members

Do you feel my child is making appropriate progress?

What benefits or drawbacks do you see in my child's AT use?

How has my child's academic achievement changed as a result of AT use?

How has my child's functional performance changed as a result of AT use?

Does my child need support for any additional tasks?

Additional questions and thoughts to share:

Education Tech Point #7: Transition

Transitions occur each year as students progress through the educational system. Some years there are simple changes to a new classroom in the same building, other years they involve movement to different buildings or even to an entirely new kind of environment. No matter

how simple or complex your child's transition, the new start always means that steps must be taken to ensure that AT that was working well is continued, and AT use that was not working well is re-examined and improved upon.

Transition questions

When my child is moving to a new educational environment, I should ask myself:

- ▶ Could the AT my child is using at school be useful in any other situations or environments?
- ▶ If there have been drawbacks or difficulties, how can we overcome them?
- ▶ Do I think my child should continue to use the same assistive technology next year?

I should ask service providers:

- ▶ If my child is making a transition to a new setting, will the same assistive technology be available at his or her new setting?
- ▶ Do the people in the new environment know how to use the AT?
- ▶ Is my child's AT compatible with other technology in the new setting?
- ▶ What needs to be done now to ease the transition?
- ▶ What supports will my child need in the new setting?

Jasper's transition

Jasper has been successfully using text-to-speech technology on a computer to help read textbooks. He is moving to middle school next year and the team wants to look into the ways that he could read textbooks using mobile tablet technology instead of a computer.

Joy and John were concerned about Jasper's upcoming move to the middle school. Toward the end of the school year, during a meeting to plan the transition, they asked the team how he would be able to use all the equipment independently at the new school and how these skills were included in the IEP. The media specialist did her homework and reported Jasper could use one of the mobile tablets from the classroom sets rather than a computer if the team thought that was a good idea. Because he would be moving from class to class, everyone thought that having a tablet to take from class to class would be great.

The team recognized there were things to figure out. If he was going to use a new type of technology, they wanted to make sure it had all the features Jasper had been using on the computer. They realized they needed to identify a contact person at the middle school who would get the middle school textbook files and make sure they were loaded on the mobile device. The media specialist agreed to do that.

The team felt Jasper should begin to learn how to use the tablet as soon as possible. Someone pointed out he also needed to learn how to explain why he was using the tablet at times when other students were reading so teachers and peers would understand what he was doing. Joy and John agreed Jasper could spend two additional hours a week in the resource room, for the rest of the school year, so he could get ready to use the tablet technology when he moved to middle school. They even planned for him to be able to take a mobile device loaded with books for recreational reading home over the summer as a way to practice with the read-aloud functions on the tablet.



Madison's transition to first grade

Madison has a lot to say and uses many communication strategies, including her AAC device to get her message across to everyone. She is going to first grade in the fall.

The team was excited and encouraged as they planned for Madison's entry into first grade. They discussed the things that would need to happen for Madison to prepare for the transition. Among the activities they planned was training for all of the first grade classroom staff about how to use Madison's AAC device. They planned to help the first grade staff members develop a system to add and change vocabulary on a regular basis as the first grade instructional program moved along. They also agreed Madison's speech therapy was still helping her to improve her oral speech and should be continued. Finally, they planned for the development of some new communication cards Madison could use when it was inconvenient for her to use her AAC device.

Madison's team felt confident they had made the best possible plan for her given the information they had but they were also pretty sure unforeseen problems would arise. They decided to plan a meeting to discuss the AAC program with the first grade classroom staff three weeks after school started to talk about Madison's progress, barriers to her AT use and to identify any changes that were needed.



Transition: Will the same AT work in new settings?

Times of transition are good times to look to the future of your child's AT use. At the end of a school year, your child's program, classroom or school often changes. At some point there is a move from school to a community setting. The AT that he or she needs might also need a change because the tasks in the new environments will be different. Planning for small transitions like those in which your child moves from grade-to-grade or from classroom-to-classroom is important so that the work you, your child and the team did to integrate AT into use does not get lost as a result of the change. Keeping the big picture of the purpose of your child's AT use in mind, can help smooth both small and large transitions and make sure that AT skills are not lost as your child grows and changes. You and other team members may decide to make visits to the new setting or invite the teachers who will work with your child in the future to visit his or her current classroom. Your team members may also want to create a video of your child using the AT showing what he or she can do with it.

When the changes involved in a transition are more significant, like the transition from elementary school to middle school or from a school setting to community, transition planning should reflect this. You will probably want to meet the new people who will be supporting your child and your child's AT use. As you all prepare for this transition it is important to focus some of your planning on how AT will be used in the new setting. It can also be valuable to think about how independently your child is using his or her AT and whether or not he or she could learn to be more independent before the transition. Since school AT helpers will probably not make the transition with your

child, independence in AT use becomes more important during times of transition. If there are things about AT that your child cannot do independently, it will be necessary for the team in the new setting to plan for the new ways that help will be provided.

One way to ensure the AT is used in new settings is to identify the people who can explain and advocate for your child's AT use. And the best advocate may actually be your child. Self advocacy is a powerful strategy that helps children and youth to ask for what is important to them and to take a more active role in their own lives. Students who use AT should, as early as possible, begin to make simple choices about their AT (like what color case they want for their device or what vocabulary should be included), learn to ask for their AT when it is not provided, explain to others the reasons they use AT and participate in the selection, acquisition and planning for use of their AT.

The most significant transition for students with disabilities is the transition from school to post-school settings. When your child is ready to leave school and move on to the next step in life, things change a little. As with other kinds of adult services, people who use AT are not automatically entitled to the support they need. They may be eligible to receive new devices or ongoing AT services, but either you or your child will have to request them. The systems that support adults with disabilities are built on the assumption that adults know what they need and know how to ask for it. If your child is not able to do this independently, you or someone else who knows your child and his or her AT use, may need to take that advocacy role.

Transition worksheet

My thoughts and observations

Now that my child is using AT at school, can I think of any other situations or environments where the same technology may be needed?

What transitions do I anticipate that my child will be making in the next year or two?
Will the AT be needed in those settings too?

My questions for the other team members

If my child is making a transition to a new setting, will the same assistive technology be available at his or her new setting?

Do the staff there know how to use it?

Is my child's AT compatible with other technology in the new setting?

What needs to be done now to ease the transition?

Will my child need additional supports in the new setting?

Additional questions and thoughts I want to share:

Using *Assistive Technology Pointers for Parents*

As you use the material in *Assistive Technology Pointers for Parents*, we hope you will get a clearer vision of the ways you can advocate for your child's use of AT and also the ways you can be proactive and work collaboratively as part of your child's team. While there are lots of exciting technologies available to support students with disabilities, it requires a thoughtful process that facilitates the team's collaborative problem solving to make AT use truly effective.

A team process that is focused on task completion and integration of the technology into your child's everyday routines and activities will help to ensure the AT is a useful tool to

help your child overcome barriers to learning. Over time the tools will change, but an effective process will make it easier to incorporate new AT as your child's needs or situations evolve.

We also hope to hear from you. Information on how to contact us can be found right after the acknowledgments at the beginning of this workbook. We would love to know how you are able to use the information in *Assistive Technology Pointers for Parents*. We always appreciate suggestions about how we could improve the workbook. And most of all, we would love to hear about your child's experiences in using assistive technology.



How do I get more information about assistive technology?

If assistive technology is new to you, you can find out more about it from a variety of sources. First, there are specific assistive technology projects in every state. They are funded by the Assistive Technology Act (Tech Act) and although funding has been phased down over the years, those projects currently exist.

To find out about the Tech Act program in your state, visit the website for the Association of Assistive Technology Act Programs, <http://www.ataporg.org>

Many states also have one or more assistive technology centers that are private non-profits established through the Alliance for Technology Access. Their website is <http://www.ataccess.org>

Finally, many state education agencies fund specific projects and programs that provide statewide training and technical assistance on the topic of assistive technology for children. You can find these by contacting your State Department of Education.

Conferences

Conferences are another excellent way to learn more about assistive technology. Many states hold an assistive technology conference each year. Other states include assistive technology as a “strand” in a special education conference. When you contact your state Department of Education, inquire about any conferences in your state that might include information on assistive technology. If there are none, or even if there are, you may want to consider attending one of four national conferences that focus on assistive technology.

- ▶ **The Assistive Technology Industry Association (ATIA)** holds its annual conference in Orlando, Florida at the end of January. ATIA World Conference, Assistive Technology Industry Association, 330 N. Wabash Ave., 20th Floor, Chicago, IL 60611-4267, Phone: (312) 321-5172, E-Mail: info@ATIA.org, <http://www.atia.org>
- ▶ **The Center on Disabilities at California State University at Northridge (CSUN)** holds the Technology and Persons with Disabilities Conference, in San Diego the third week in March. Center on Disabilities, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8340, Phone: (818) 677-2578 or visit their website at <http://www.csun.edu/cod/conference>
- ▶ **The Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)** holds its annual conference somewhere in the United States or Canada, in June. Rehabilitation Engineers and Assistive Technology Society of North America (RESNA), 1700 N. Moore Street, Suite 1540, Arlington, VA 22209-1903, Phone: (703) 524-6686 or visit their website at <http://www.resna.org/conference>.
- ▶ **The Closing the Gap Conference** is held in Minneapolis, Minnesota the third week of October. *Closing The Gap*, P.O. Box 68, 526 Main St., Henderson, MN 56044, Phone: (507) 248-3294, Fax: (507) 248-3810, <http://www.closingthegap.com>

All of these are excellent sources of information. Most of them offer a reduced rate for parents and family members.

Websites

A large number of websites provide information about assistive technology. There are far too many to list here, but fortunately many of them are interlinked, so that going to one will lead you to the others. Start with *Family Center on Technology and Disability*, and then try the others and all the sites they link to.

- ▶ **Family Center on Technology and Disability (FCTD):** This federally funded website has a wealth of resources and useful information. This is a very good place to start on your journey to learn more about assistive technology. Especially helpful are Family Information Guides (http://www.fctd.info/show/fig_summary) and the Fact Sheets (<http://www.fctd.info/factsheets>). The Family Information Guides include one on AT, and the Fact Sheets include: Assistive Technology 101, Assistive Technology Glossary, Assistive Technology and the IEP, Assistive Technology Laws, and Assistive Technology Solutions. All are available in both English and Spanish. Their *Family Information Guide to Assistive Technology and Transition Planning* is also excellent. All are free to download and available in English and Spanish.
- ▶ **Abledata:** This site is a repository of information on over 40,000 assistive technology products. This is a good place to get a general overview of the wide variety of devices and the vendors who sell them. <http://www.abledata.com>
- ▶ **Pacer Center:** The Simon Technology Center at Pacer Center helps children and adults with disabilities and their families use assistive technology to improve their lives. This site has a variety of pamphlets, booklets, videos, and other resources about AT. <http://www.pacer.org/publications/stc.asp>
- ▶ **YouTube Videos:** There are numerous videos about AT and its use. Just go to www.youtube.com and search for assistive technology videos.

Appendices

Appendix A

Sample list of assistive technology for reading, studying, and communication

Appendix B

Forms mentioned in this book

Appendix A

Sample list of assistive technology for reading, studying, and communication (not intended to be exhaustive)

Reading

Adapted books for access (e.g. page separators)
Picture symbol supported text
Modify text: size, color, spacing
Tracking aids—Reading windows/cutouts
Talking electronic dictionaries
Podcasts to summarize or highlight reading
Handheld scanners/readers
(e.g. ReadingPen TS)
Audio books, MP3 player
Digital e-Readers
(e.g. Kindle, ClassMate Reader)
Scan and Read handheld (e.g. Intel Reader)
Digital books with text highlighted as read
Digital books with adapted text
(e.g. Start-to-Finish)

Studying/Information management

Paper sticky notes, sticky tabs (e.g. Post-it)
Highlighters (e.g., markers, Highlight Tape)
Low tech aids to locate
e.g., index tabs, colored folders)
Recorded material (e.g., books on tape, taped lectures with number coded index)
Electronic bookmarks and voice notes
Auto Summary in word processing programs
Electronic organizers
Electronic reminders
Hand-held scanners/readers
(e.g. ReadingPen TS)

Recording/bookmarking pen
(e.g. LiveScribe Pen)
Software for organization of ideas and studying (e.g., Inspiration, Draft Builder, PowerPoint)
Online search tools (e.g. Nettekre, Thinkfinity)
Online web trackers
Online sorting file tools (e.g. delicious.com)
Online animations, interactives, or tutorials

Communication

Communication board/book with pictures/words
Eye gaze board/frame
Single message speech generating devices (SGD) (e.g. BIGmack, Put Em Arounds, CheapTalk One)
Simple SGD (e.g. CheapTalk, GoTalk)
Simple SGD for sequencing (e.g. Step-by-Step)
SGD with levels (e.g., Tech Speak)
SGD with icon sequencing
(e.g., Vanguard, Chatbox)
SGD with dynamic display
(e.g., Dynavox, BoardMaker with Speaking Dynamically Pro on laptop)
SGD using keyboarding (e.g., LightWriter)
SGD with eye gaze (e.g., Tobii, Dynavox)
iPad with communication apps
(e.g., Proloquo2go, TapToTalk, Touch Chat)

Appendix B

Forms mentioned in this book

Assistive Technology Trial Period Plan

Assistive Technology Implementation Organizer

Assistive Technology Trial Period Plan

Date of Trial Period Planning: _____

Student Data

Student Name _____

Parent Name(s) _____

Parent Phone _____

Parent Email _____

Parent Address _____

Date of Birth _____ CA _____

Disability _____

IEP Date _____

Medicaid ID# _____

Medical Diagnosis _____

Social Security # _____

Grade/Placement _____

Student # _____

School _____

School Address _____

School Phone _____

School Fax _____

Team Members

AT Extended Assessment Coordinator

Name _____

Title _____

Phone _____

Email _____

Other Team Members

Name _____ Title _____

Phone _____

Email _____

Name _____ Title _____

Phone _____

Email _____

Name _____ Title _____

Phone _____

Email _____

Name _____ Title _____

Phone _____

Email _____

Overall Goal for Device Use

Goal for Student's Use of the Device:

How will we know if the trial is successful?

What level of achievement is reasonable to expect during the trial period?

How will we know if the trial is not working (What criteria will we use to stop)?

Customary Environments Where Devices Will Be Used

1. Environment: _____
Tasks: _____
Person responsible for implementation: _____
Days to be used: _____
Times to be used: _____
2. Environment: _____
Tasks: _____
Person responsible for implementation: _____
Days to be used: _____
Times to be used: _____
3. Environment: _____
Tasks: _____
Person responsible for implementation: _____
Days to be used: _____
Times to be used: _____

Specific Devices For Trial

Device #1 _____
Date of trial Initiation _____ Minimum length of trial period _____
Device trial review date _____
Source of Device for Trial _____
Contact person for technical assistance for trial _____
Manufacturer: _____ Manufacturer technical assistance number _____
Comments _____

Device #2 _____
Date of trial Initiation _____ Minimum length of trial period _____
Device trial review date _____
Source of Device for Trial _____
Contact person for technical assistance for trial _____
Manufacturer: _____ Manufacturer technical assistance number _____
Comments _____

Device #3 _____
Date of trial Initiation _____ Minimum length of trial period _____
Device trial review date _____
Source of Device for Trial _____
Contact person for technical assistance for trial _____
Manufacturer: _____ Manufacturer technical assistance number _____
Comments _____

Trial Period Summary
(To be completed at the end of the assessment)

- ☐ How did the child's performance change when using the devices?

- ☐ How did the student like using each device? Did the student prefer one of the devices?

- ☐ What are the advantages of using the devices?

- ☐ What are the disadvantages of using the devices?

- ☐ How long can the child be expected to use the devices?

Team Recommendation:

Assistive Technology Implementation Organizer

Student Name: _____
 School: _____
 District: _____

Date: _____
 Birthdate: _____
 Completed by: _____

Mother's Name:	Father's Name:
Home Address:	Home Phone:
City/State;	Email:
Student Age:	Grade/Placement:
IEP Date:	Medicaid #:
IEP Disability Code:	Medical Diagnosis
School:	School Address:
School Phone:	

Team Members

Name	Title	Phone	Email
Coordinator:			

Overall Goals for Assistive Technology Use

Goals for the assistive technology:

Item/Device/Software	Goal of Item/Device/Software
1.	
2.	
3.	
4.	
5.	

Item/Device/Software

- Who will provide the device/software and consumable supplies needed? (batteries, ink cartridges, paper, overlays, etc.) Who purchased it and who owns it? If it is a loan –return date?

#	Device	Who will purchase/rent	Consumables Needed	Who will provide Consumables	Where will they be kept?

Assistive Technology Implementation Organizer

2. What environments will the student use the AT device/software and how will it be made available? (e.g., move with the child, child will go to the device, on request, etc)

Environments (class, library, lunch, PE, etc)	Responsible Party in that environment	How it will be available?

3. Where will the device be located when the child uses it? When it is not in use where will it be located? Will the device be locked – if so where is the key located?

4. Will the student need the device at home - ☐ Yes ☐ No

If no, will an alternative device be needed? If yes, how will it be transported home?

5. Will adaptations or modifications to the device be needed to help the student access it? (e.g., key-guards, mounting devices, enlarged keys, etc)

6. Who will be responsible for device repairs? (e.g., school district, parents, insurance, Medicaid, etc)
If the device/software breaks – what is the back up plan?

7. Has the district purchased a maintenance agreement? If yes, where is it located? Who is the contact person?

Support/Training: Student

Task	Person Responsible	Amount/Schedule	Evidence of Completion
Initial training			
Ongoing training			
Daily/Regular Support of Student Use			
Daily/Regular Maintenance of Equipment			
Communication with Family			
Parent/Family Training			
Repairs/Modifications			
Programming Device or Software			

Assistive Technology Implementation Organizer

Student Training:

1. What will this student use the AT device to do:

3. What specific skills will the student need to learn?

3. How much training does the student require to learn this skill?

4. When will training be provided to the student and by whom?

5. How will the student learn to use the device in customary environments?

6. What kind of direct supervision and help will the student need in order to use the device for meaningful tasks related to the curriculum? Who will provide it? How often?

Staff: Who will train the staff, what staff, how much training do they need and when will it occur?

Item/Device/ Software	Staff to be Trained (name and title)	Trainer for each devices/software	Amount of Training (# of hours/days)	When will it occur- (Date and time)
1.				
2.				
3.				

Family:

1. Which adults in the student's home environment will require training in the use of the device?

Person	Relationship to Student	Telephone/contact number

2. What will the family/care givers need to know about the device and how it works?

3. Who will provide the training for the family /care givers?

4. Who should the family/care givers call for technical assistance?

Assistive Technology Implementation Organizer

Customary Environments Where Assistive Technology will be Used

1. Environment: _____

Task	Person responsible For Implementation	Days to be Used	Times to be Used

2. Environment: _____

Task	Person responsible For Implementation	Days to be Used	Times to be Used

3. Environment: _____

Task	Person responsible For Implementation	Days to be Used	Times to be Used

Outcomes

How will we know if the device or software is successful?

Device/Software	Success would mean:
1.	
2.	
3.	

What level of achievement is reasonable to expect with this item/device/software?

Device/Software	What level of achievement will be expected	How long to achieve it?
1.		
2.		
3.		

How will we know if the device or software is not working

Device/Software	It's not working if ...
1.	
2.	
3.	

What criteria will be used to stop?

Device/Software	It's not working if ...
1.	
2.	
3.	

Distributed by:

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