

Assistive Technology Basics

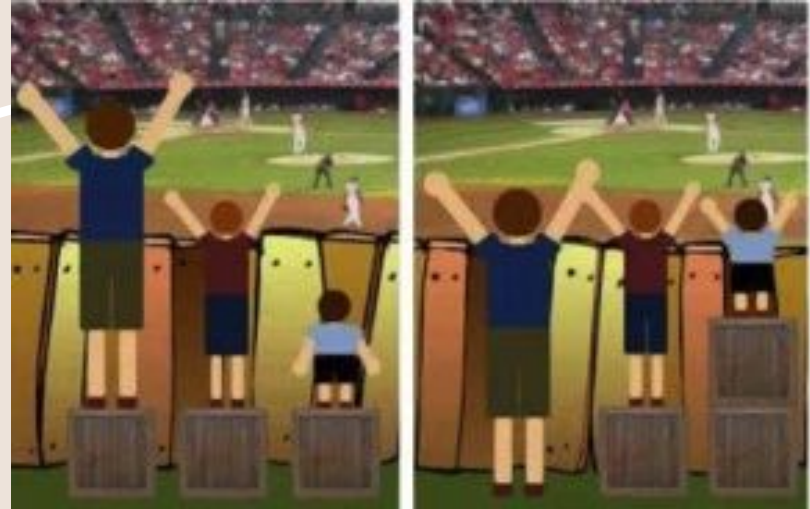
Regions 5 and 7 AT CoP

A dark blue diagonal graphic that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

What is Assistive Technology?

Assistive technology is defined as both a “device” and a “service.”

In special education, AT is something used by an individual with a disability to improve their ability to perform a task that is part of being in the educational setting. AT helps to LEVEL THE PLAYING FIELD!!



What is Assistive Technology?

Assistive technology **devices** are identified in the IDEA 2004 as:

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 children with disabilities.

The term does not include a medical device that is surgically implanted, or the replacement of such device.

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

What is Assistive Technology?

As defined in IDEA, an assistive technology **service** is:

Any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device. The term includes -

- The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
- Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
- Selecting, designing, fitting, customizing, adapting, applying, retaining, repairing, or replacing assistive technology devices;

AT Services Continued:

- Coordinating and use other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
- Training or technical assistance for a child with a disability or, if appropriate, that child's family; and
- Training or technical assistance for professionals (including individuals or rehabilitation services), employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities.

What is Assistive Technology?



What is Assistive Technology?

<https://www.atia.org/at-resources/what-is-at/#what-is-assistive-technology>

<http://www.gpat.org/Georgia-Project-for-Assistive-Technology/Pages/Assistive-Technology-Definition.aspx>

<https://mn.gov/admin/at/>

<https://education.mn.gov/MDE/dse/sped/tech/index.htm>

<https://www.leg.state.mn.us/docs/2009/mandated/090269.pdf>

Assistive Technology Law

IDEA 2004 requires IEP teams to consider the assistive technology needs of all children with disabilities. (20 U.S.C. 1414(d)(3)(B)(v))

The law requires schools to use assistive technology devices and services "to maximize accessibility for children with disabilities." (20 U.S.C. 1400(c)(5)(H))

Assistive Technology Law

- Assistive Technology and IDEA: Assistive Technology includes “devices” and “services”. IDEA 2004 requires IEP teams to consider the assistive technology needs of all children with disabilities. (20 U.S.C. 1414(d)(3)(B)(v))
- The law requires schools to use assistive technology devices and services “to maximize accessibility for children with disabilities.” (20 U.S.C. 1400(c)(5)(H))

Educators must consider assistive technology for all children with an Individualized Education Program and provide this technology for students who require it.

Assistive Technology Law

Resources:

<http://www.gpat.org/Georgia-Project-for-Assistive-Technology/Pages/Legal-Man-dates-for-Assistive-Technology.aspx>

<https://www.wrightslaw.com/info/atech.index.htm>

https://mn.gov/admin/assets/Special%20Education%20Assistive%20Technology%20Legislative%20Report%202018_tcm36-334369.pdf

Assistive Technology Consideration



Why?

Why?

It allows people with disabilities to

- Have Equal access and opportunities
- Be independent and productive
- Care for themselves and their families
- Work
- Learn in typical school environments and other educational institutions
- Access information through computers and reading
- Enjoy music, sports, travel, and the arts
- Participate fully in community life
- Have greater control over their own lives
- Participate in and contribute more fully to activities in their home, school, work environments, and in their communities;
- Interact to a greater extent with non-disabled individuals
- Otherwise benefit from opportunities that are taken for granted by individuals who do not have disabilities (Hosmer, 1995)

How?

It's an ongoing process...

The SETT Process

Originally Created by:
Joy Zabala

The SETT process is a way for teams to consider if assistive technology is needed for a student.

4 areas when considering Assistive Technology:

1. **Student**
2. **Environment**
3. **Tasks**
4. **Tools**

Let's break it down

Consider the Student

Likes and dislikes

Physical needs

Sensory needs

Communication style/needs

Cognitive Ability

Comfort with technology

Academic levels

Social Competence

Environmental Control

Vocational aspirations/needs

Recreation/Leisure needs

Consider the Environment

In what environments
are Assistive
Technology potentially
needed?

Just one classroom

Many classrooms

Gym, Recess, Hallway, Bus

Field trips

Home

Other

Consider the Tasks

What tasks does the student struggle with to make progress or access in the school or home?

Reading

Writing

Spelling

Math

Study/Organization

Listening/Comprehension

Language/Communication

Activities of Daily Living

Recreation/Leisure

Pre-vocational/Vocational

Mobility, Positioning, Seating

Vision/Hearing

School Technology

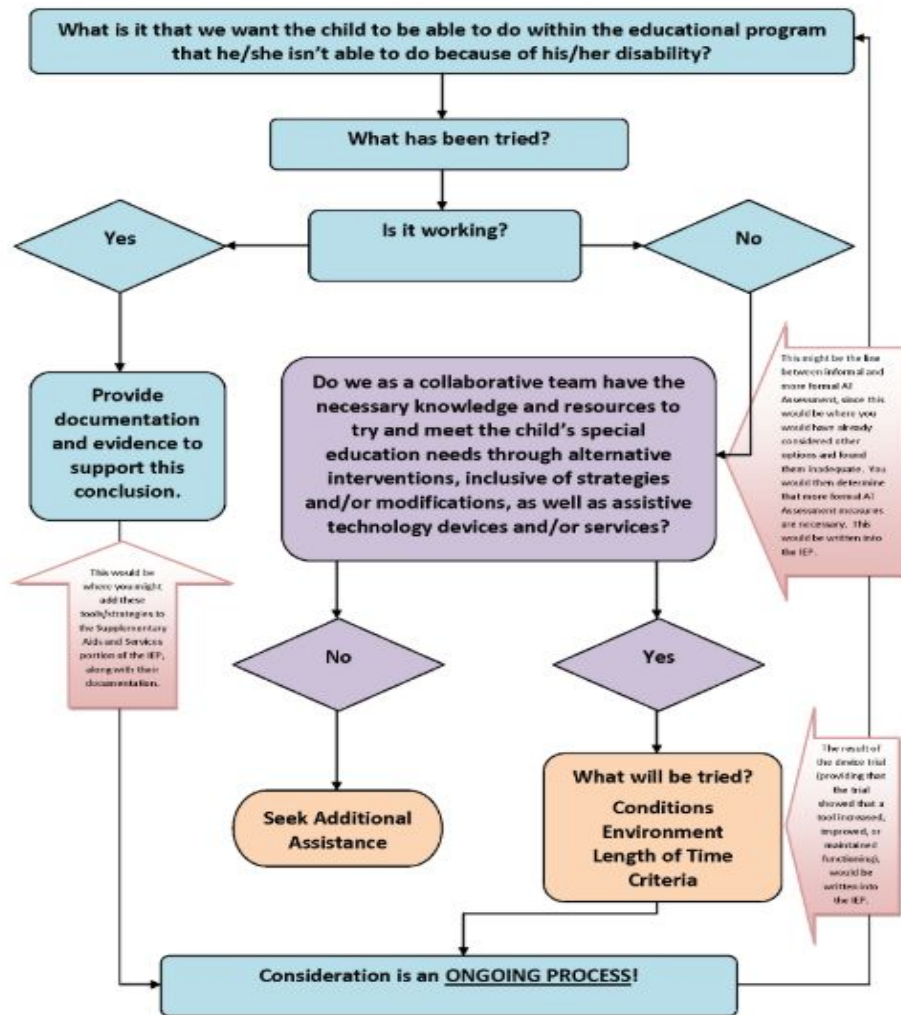
Access

Gather information from a variety of sources

Consider the Assistive Technology Tools

- What potential **features** does an AT tool need
- What are potential tools that have the same/similar features
- Consider from No tech, low tech, mid tech, to high tech

A flowchart of the Consideration Process



An example

High Incidence Example student with Consideration process

Student:

- 6th grade boy, reads independently at 2nd grade level.
- Has grade level listening comprehension.
- Likes stories, read on own or by others
- Loves math
- Diagnosed Reading Disability (SLD)

Environment:

- Listens to audiobooks of interest and watches movie remakes of books of interest at home
- Avoids classroom homework at home because of reading level of assignments
- Materials are at instructional level in special education classroom

Example student continued

Tasks:

- Struggles significantly in grade level content areas because of reading level
- Cannot read websites, worksheets, textbooks without extraordinary effort and loss of comprehension

Tool (features)

- **Read worksheets, computer sites and textbooks aloud**
- **Needs to be portable for home and school**
- **Text to speech**

Potential Tools: Google text to speech, bookshare, snap and read app, Kurzweil, Read, Write, Gold...

Another
example

Low Incidence Example student with Consideration process

Student:

- Kindergarten girl with Cerebral Palsy, wheelchair for mobility.
- Very limited hand movement and little accuracy in targeting objects.
- Can make clear defined head movements and eye movements.
- Typical Cognitive Ability.
- Speech moderately affected by disability-understandable to those that know her.
- Loves peer interactions and being part of her class activities

Environment:

- Has one to one para at school and PCA at home
- All classes and environments needs assistance for active participation.
- Special education is indirect service.
- Classroom has typical toys and materials.
- Classroom has Smart Board activities for all group instruction as well as manipulatives and worksheets for extended practice.

Example #2 student continued

Tasks:

- Struggles significantly in accessing and manipulating classroom materials and environment.
 - Writing
 - Playing with toys
 - Participating in class discussions
 - Completing tasks to show what she knows
- Struggles significantly being understood by teachers and peers.
- Needs extended response time

Tool: (features)

- **Read worksheets, computer sites and textbooks aloud**
- **Needs to be portable for home and school**
- **Ability to direct select and manipulate environment and materials.**
- **Access and utilize spoken language.**

Potential Tools: Head and eye gaze operated Switches, Augmentative Alternative Communication (AAC) Device with scanning and alternative selection. Adapted toys, built-up handles or size of supplies and tools. ...

Assistive Technology in the IEP

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

Quality Indicators for AT in the IEP

- Education agencies should have guidelines for documenting AT in the IEP
- All services needed to support the selection, acquisition, and use of AT devices should be documented in the IEP
- The IEP should illustrate that AT is a tool to support achievement of goals and progress in the general curriculum
- The language used in the IEP must describe how AT contributes to achievement of measurable and observable outcomes
- AT should be documented with a clear and complete description of the technology that will be available, how it will be used, and under what circumstances

IDEA does not specify a place where AT should be documented or how such documentation should look

SO...

Where should AT be included?

- Evaluation Results
- Present levels of Performance
- Special Factors
- Annual Goals
- Related Services
- Program Modifications
- Supports
- District Assessment Participation
- Statewide Assessment Participation
- Postsecondary Goals and Transition Services

Why does AT matter?

“When technology and accessible materials are explicitly incorporated into the IEP, the likelihood is increased that the student’s use of them will become an effective and integrated part of the learning process.”

National Center on Accessible Educational Materials (2015)

Questions to guide teams:

- Will AT lower barriers to participation and achievement?
- Is printed text or digital media a barrier?
- Does the student need accessible education material?
- Is AT needed to access specialized formats or digital materials?
- Can the student access and derive meaning from print-based materials?
- Are they currently using AT to access the general education curriculum?
- Do they need instruction in braille or use of braille?
- Do they need AT to perceive or interact with written or aurally presented material?
- Is AT needed to work toward mastery of curricular and IEP goals?
- Is AT needed to support achievement of goal or progress in general ed. curriculum?
- Can AT help the student be involved in the general ed?
- Is AT needed as part of special ed. or related services?
- What supports are needed to use AT?
- What training is needed for educators and family?
- What assessment accommodations are needed?
- How can we support the student in developing self-determination and advocacy for AT?
- What are AT needs during and after transitions?

Resources for More Information

[Minnesota Guide to Assistive Technology and SETT framework](#)

[Student Inventory for Technology Supports \(SIFTS\)](#)

[National Center on Accessible Educational Materials \(AEM\)](#)

[Quality Indicators for Assistive Technology Services](#)

[Joy Smiley Zabala - AT Guru!!](#)