

The Occupational Therapist's Support of Assistive Technology in the School Setting

Teresa Glass, MAHS, OTR/L, ATP
MOTA, 26 October, 2019

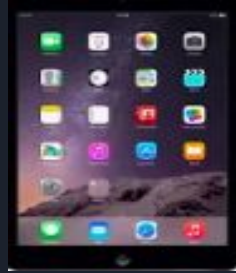


Learning Objectives:

- Learn the Definition of Assistive Technology
- Gain Information for Best Practice for Documenting Assistive Technology for ESR and IEP
- Acquire Knowledge on how to Consider Assistive Technology (SETT Framework)
- Develop and understanding of LOW to HIGH Tech Assistive Technology Solutions.
- Become Familiar with common AT Tools used by OTs in Educational Settings

IDEA 1997:

Improved Outcomes for All Students

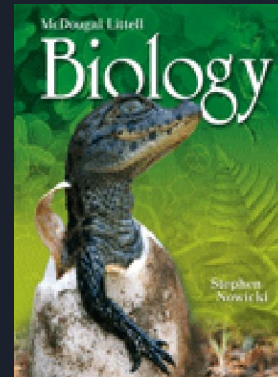
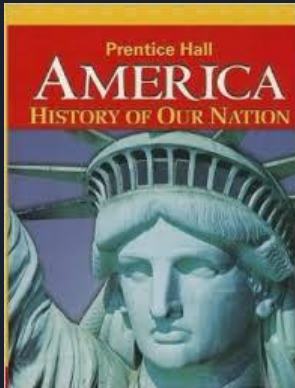


- Involvement in general curriculum
- Inclusion in accountability systems
- Increased importance of technology

Reauthorized IDEA 2004

Created the NATIONAL INSTRUCTIONAL MATERIALS ACCESS CENTER and NIMAS

- **To provide access free of charge, to blind or other persons with print disabilities in elementary schools and secondary to make textbooks accessible for blind persons and persons with print disabilities**





IDEA Mandates

- Consideration of AT need by IEP team
- Availability, if required
- Use in home to receive FAPE (if appropriate)



Two Things that Students Ask Themselves when they arrive at School

- Will I be Accepted?
- Can I do the Work?



Consideration



What does it
mean?

What does it
look like?

Consideration

- Part of the education planning process



AT Consideration is every
special education
team member's
responsibility



What is Consideration?

- Consideration is *“a relatively short process in which IEP team members... determine students needs for AT.”*
- Bring AT up at IEP & Eval time:
 - *“Let’s consider AT for areas where Juan is not making progress and has difficulty meeting standards”*



3 Steps to AT Consideration

1. SETT (Student, Environment, Task, Tools)
 2. Ask key questions about AT & IEP progress
 3. Use AT Consideration Guide
- See AT Consideration Worksheet

https://qiat.org/docs/resources/AT_Consideration_Guide.pdf

Consideration of Assistive Technology Worksheet

When

How

Where

When to consider assistive technology

- Referral
- Evaluation
- IEP/IFSP Development
- Implementation
- Progress Review

How to consider assistive technology: 3 STEPS

1. SETT process: Consider 4 pieces of information for each student, then ask the key questions.

Name: _____ Date: _____

- _____ Student's strengths, abilities and skills
- _____ Environments in which the student functions
- _____ Tasks, needs, activities, from general education, resulting in IEP goals
- _____ Tools to meet these goals including assistive technology devices & services

Remember, consideration may result in simple solutions like a pencil grip or complex recommendations such as electronic systems & predictive software.

2. Key Questions

A. Is the student making adequate progress? Is the student independent and participating fully?

- Yes--AT is not needed. Action: Document your consideration in Easy IEP Drop Down: Assistive Technology has been considered and is not required.
- No--Go to question 2

B. Is the student currently using AT successfully?



- Yes-- AT is necessary to meet IEP goals.
Action: Document need in Easy IEP Drop Down: Assistive Technology has been considered and is added in Supplementary Aids & Services
- No-- Go to question 3

C. Is the IEP team unsure if the student needs assistive technology?

Assistive Technology Consideration Guide

Student Name _____ Date _____ IEP Team Members _____

INSTRUCTIONS: Write the name of the specific task which is challenging for the student in the appropriate "Instructional or Access Area" box. To identify a solution, start by reviewing items in Standard Tools, next move to Modifications/Accommodations, and finally review Assistive Technology. Mark [C] in the box beside any option which is currently used. Mark [T] in the box beside any option, which is identified to try with the student.

Area	Standard Tools	Modifications and Accommodations	Assistive Technology Solutions
<p>Writing</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Crayon/marker <input type="checkbox"/> Pencil (with harder or softer lead) <input type="checkbox"/> Pen (regular, felt tip) <input type="checkbox"/> Webbing/Concept mapping strategy <input type="checkbox"/> Dictionary <input type="checkbox"/> Thesaurus <input type="checkbox"/> Note taking strategy (e.g. Cornell Notes) <input type="checkbox"/> iPad for word processing (with spellchecker) 	<ul style="list-style-type: none"> <input type="checkbox"/> Turn on built-in iPad audio feedback & word prediction for writing and editing. <input type="checkbox"/> Turn on built-in iPad voice dictation <input type="checkbox"/> Photos or recordings of key ideas for note taking on iPad <input type="checkbox"/> Use copy of teacher's notes <input type="checkbox"/> Graphic Organizer or Idea generation app (e.g. Popplet) <input type="checkbox"/> Format of assignment changed to multiple choice, fill-in-the-blank <input type="checkbox"/> Visual sample for letter/number formation for close reference <input type="checkbox"/> Reduced assignments with key ideas <input type="checkbox"/> Task analyze, sequence assignment <input type="checkbox"/> Increased time to finish assignments <input type="checkbox"/> Decreased length of assignment or number of responses 	<ul style="list-style-type: none"> <input type="checkbox"/> Pencil grip or other adapted grip <input type="checkbox"/> Weighted pencil or soft/hard lead pencil <input type="checkbox"/> Adapted paper (bold or raised line, different spacing, paper stabilizers) <input type="checkbox"/> Slant board or No-slip writing surface <input type="checkbox"/> Portable word processor (e.g. AlphaSmart, Neo) <input type="checkbox"/> Bluetooth keyboard <input type="checkbox"/> Note taking device (audio recorder, recording pen & paper, Braille) <input type="checkbox"/> Specialized graphic organizer app (e.g., Inspiration*) <input type="checkbox"/> Picture supported writing app (e.g. Clicker Sentences*) <input type="checkbox"/> Predictive Writing App with topic dictionaries (e.g. CoWriter*)
<p>Math</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Manipulatives (abacus, beads, etc.) <input type="checkbox"/> Number line/100s Chart <input type="checkbox"/> Math fact sheet (e.g., multiplication facts) <input type="checkbox"/> Calculator <input type="checkbox"/> Instructional software/website to enhance and remediate math skills <input type="checkbox"/> Graph paper/Vertical Alignment of lined notebook paper <input type="checkbox"/> Geoboard app 	<ul style="list-style-type: none"> <input type="checkbox"/> Magnifying Bar with Highlighter <input type="checkbox"/> Change format of assignment (e.g., write answers only) <input type="checkbox"/> Peer adult reading of problems and recording of answer <input type="checkbox"/> Reduce number of problems 	<ul style="list-style-type: none"> <input type="checkbox"/> Modified paper (e.g. raised line, boxes) <input type="checkbox"/> Math Writing App (e.g. mod math) <input type="checkbox"/> Talking calculator/Talking watch (e.g. Coinulator) <input type="checkbox"/> Calculator with large print display <input type="checkbox"/> Calculator with large keypad <input type="checkbox"/> Alternative keyboard with large keys (e.g. Intellikeys) <input type="checkbox"/> Electronic math worksheet (e.g., Worksheet imported to Notability for number entry)

Top 10 Academic Skills Needed:

1. Follow oral and written directions
2. Make logical deductions
3. Read at grade level
4. Recall information for tests
5. Locate answers to questions
6. Turn in assignments on time
7. Ask relevant questions
8. Clearly express ideas in writing
9. Locate information in texts
10. Participate in discussions





Occupational Therapists
have a unique lens and
much to contribute in the
area of
Assistive Technology



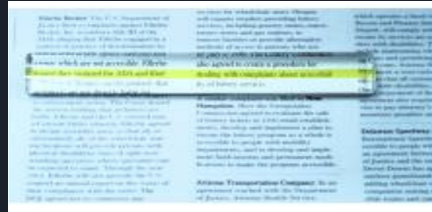
Assistive Technology Device

- Any item, piece of equipment, or product system
 - purchased commercially off the shelf
 - modified
 - customized
- AT Device used to:
 - increase
 - maintain
 - improve functional capabilities of child

Anything that makes it easier to...



Understand



See



Write



Play



Remember



Communicate

How to Consider Assistive Technology:

USE THE SETT FRAMEWORK



Student



Environment



Task




Tools

Joy Zabala (1995) http://specialed.spps.org/AT_in_IEP



Always start with Low
Tech Tools, only
moving to Mid or High
Tech Tools if necessary



**When plants fail to
grow the way they are
designed, do we
blame the plant?**

**No, we
change the
conditions.**



Assistive Technology for Marking/Writing

Marking

- Holders for writing tools
- Slant Boards (3 ring binder)
- Dycem (or tape paper to writing surface)
- Stencils
- Name stamps
- Clip Board

Writing

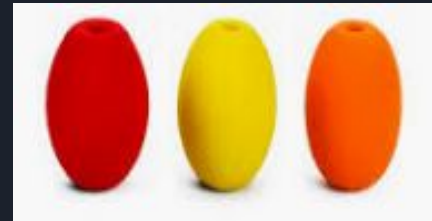
- Soft lead pencils
- Thicker Pencil
- Shorter Pencil
- Twist n Write
- Weighted Pencil



Writing Tools



Pencil Grips May Help..Like Bicycle Training Wheels..Only Need Temporarily



Student in 9th grade receiving special education services.
- He struggled to write at a level commensurate with regular education peers.

After 3 minutes handwriting on pre-selected topic, he had written 44 words.

Hobart's funnies

- The first tank was a modified M4A1 Sherman tank that had a flotation device attached to it it was known as the DUKW.
- The second tank was a minesweeper it was known as the flail tank. It had chains that were spun

After 3 minutes typing using built-in word prediction, he had written 79 words.

It had chains on a roller that would spin and detonate the mines before they drove over it.

The last of the tanks that I am going to be referring to is the "track-layer" tank, it would carry wood planking or something and lay it down as it went, it was used heavily during ww2 on d-day on Normandy so that the trucks that did not have treads were able to get a footing. Even though they had problems

After 3 minutes using built-in dictation, he had written 382 words!

During World War II there was a battle called the Battle of ILOI. It was a battle fought by the Marines and some army regiments during the war in the Pacific part of World War II. The main reason that they wanted to take the area was they wanted to make a safe winnings space for MacArthur's army at the Philippines however it was a very very small island that was kind of off to the side and some of the Marines that fought in that battle set afterwards why did we fight there it's practically useless we didn't get anything done. They fought a very very bloody battle against it was the first battle in which they didn't just charge over-the-top yelling for Mojica bonsai or long-lived DM Ginsper empire him but instead they adopted the kind of fallback defense positions which among the various Rocky quarrels of coral he was very effective due to the him the fact that it was extremely hard to blow up in fact one there was a shortage of concrete for the airfields the Seabees figured out that if you just pulverize quarrel roll over it with like a roller coaster thing and pour water over it it is almost just like concrete. They also have to deal with the fact it was over hundred degrees that they were getting water enough and the times that they didn't water it was sometimes delivered in oil barrels and so was covered in oil they also had to deal with the fact that sometimes they would be fighting right next to them these they're best friends and then watch them get killed and when they were dating foxholes in the middle of night they might be digging their own grave. One Marine was told they were told to dig their foxholes 5 m apart and when he started digging he bumped into a recently killed Japanese corpse cover in maggots the committing officer was new and continue to order him to dig but then one of the more senior committing officer came over and said just dig a little ways away beside him and it was also hard because you know they had to do it was hot it was difficult at around

Handwrite?
Type?
Dictate?

This student is able to most effectively show what he knows through dictation.

Cutting



1st Option



2nd Option



Platform

Spring Loaded

- Also Electric Scissors

Assistive Technology for Self-Feeding

- Built-up Utensils (also foam, cloth can be used)
- Mother spoons
- Cut-out cup (or tea cups)
- Universal Cuffs
- Plate Guard (Aluminum Foil)
- Dycem /Non-skid rolls
- Mirror



Assistive Technology for Toileting/Dressing (in School)

- Zipper Pulls (jackets/backpacks)
- Elastic ShoeLaces
- Bathroom Buddy



AT FOR SEATING

- Floor Support Chairs
- Back-Jack Chair
- Hoki Stool
- Cushions
- Howda Hug
- Foot Rests



AT for Organization



OK, 30 minutes and counting...

29:56

Octopus Watch



Provides
visuals and
vibration for
transitions



REVIBE Watch



- Stay on Task
- Focus
- Be more productive



Assistive Technology for Self Regulation

Pressure Vest, Weighted Lap Pad, Backpack with Weights



Self Regulation AT Tools (Auditory and Oral)



Sound Reducing Headphones/Ear Plugs



Chewy Tubes

Self Regulation Tools (Visual)



Fluorescent Light Filters

Visuals for Self Regulation



Fidgets for Self Regulation



Calming Apps



Breathe2Relax



ZenView



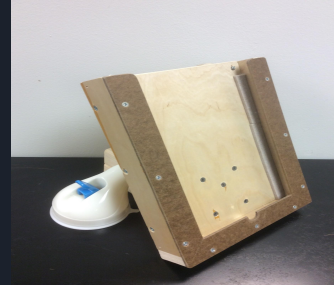
Sensory Electra



izen

iPad/Device Supports

- Plastic Milk holder
- Specialized Stylus
- Secure iPad Holder
- Specialized Case for saliva control
- Straps for ease of carrying iPad
- Wheelchair pouch for iPad






AT Consideration: Common IEP Team Errors

- AT is only considered for students with severe disabilities
- An assumption that no one on the IEP team is knowledgeable about AT
- IEP team fails to consider access to the General Education Curriculum in AT Consideration Process
- AT consideration & conclusions not documented in IEP



Don't Forget to Document Need in the IEP!

Name the need for stated tool (s)



Don't Forget to Teach
Students, Teachers,
Paraprofessionals and
Parents how to use
the Tool (s)



Thank You For Your Presence!

QUESTIONS?

Comments?

glassteresa@gmail.com

[linkedin.com/in/teresa-glass-55748743](https://www.linkedin.com/in/teresa-glass-55748743)