

Assistive Technology Tools for Learning

What's in Your Toolbox?

Julie Freed, M.S., CCC-SLP

Grant Wood AEA

Assistive Technology Team Lead

Speech-Language Pathologist

Assistive Technology

- ▶ Definition included in IDEA:
 - ▶ “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.”
- ▶ What it Really Means...

AT is any tool or technology that assists you and returns your independence!

The Case Against AT

<https://www.youtube.com/watch?v=lNs88Ki1WSo>



The Basic Truths About AT

- ▶ Assistive technology is more than computers
- ▶ Assistive technology can help ALL kids.
- ▶ AT devices are TOOLS not cures! They are designed to compensate - not remediate.

Why AT is Important?

The Council for Chief State School Officers gave three recommendations for students who need support beyond what they get in the classroom.

Instructional supports for learning based on UDL principles

Instructional accommodations (changes in materials or procedures)

Assistive technology

Where does Assistive Technology fit?

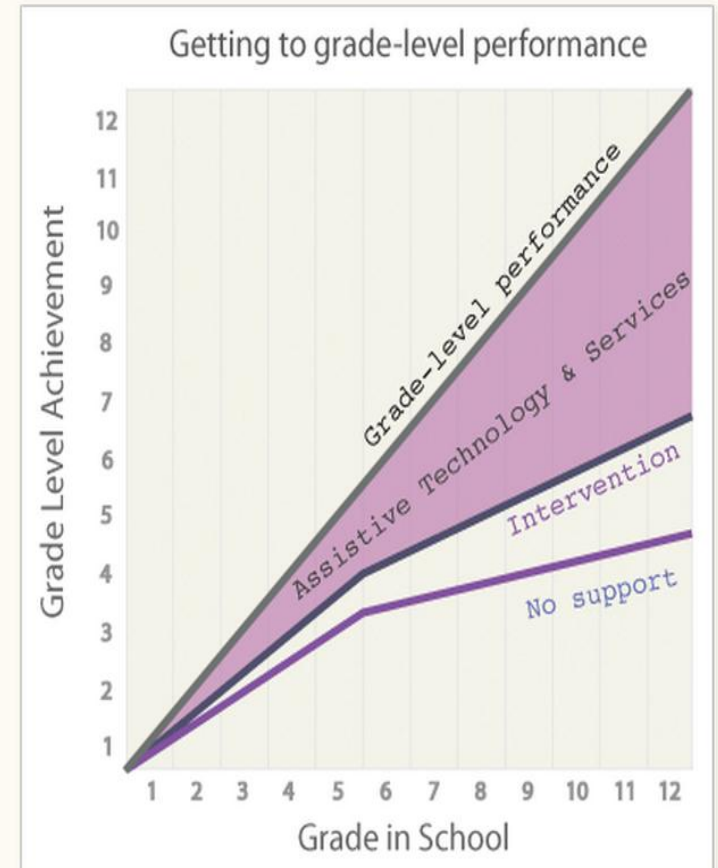
Additional supports and services (like intervention) are required to meet these more rigorous academic standards. For many students, intervention only goes so far. These students also need instructional accommodations and assistive technology to help achieve the high expectations required by the Common Core.

The Common Core gives you an opportunity to make your mark and make a difference for students with disabilities.

Where should you focus?

Two areas:

- Infrastructure
- Service Delivery



1) Infrastructure – create a UDL environment with assistive technologies

Do you have the assistive technology tools that you'll need for the Common Core?

Top AT “Tools for Learning”

1. Clever Ideas
2. Color Tools
3. Tools That Add Speech
4. Reading Technologies
 - a) AIM/AEM sources
5. Writing Supports
 - a) Portable writing tools
 - b) Note-taking & Organization
 - c) Text-to-Speech
6. Test-taking Tools

Clever Ideas

- ▶ Adapted pencils/pens
- ▶ Finger-tip ruler
- ▶ Slant Boards
- ▶ Raised Line Paper
- ▶ Highlighters
- ▶ Sticky Notes
- ▶ Page-Ups

....and there's more!

Color Tools

- ▶ **Color Filters**
 - ▶ **Color Reading Guides**
 - ▶ **Colored Gel Pens**
 - ▶ **Color backgrounds and/or highlighting**
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- ▶ www.seeitright.com

Tools that Add Speech

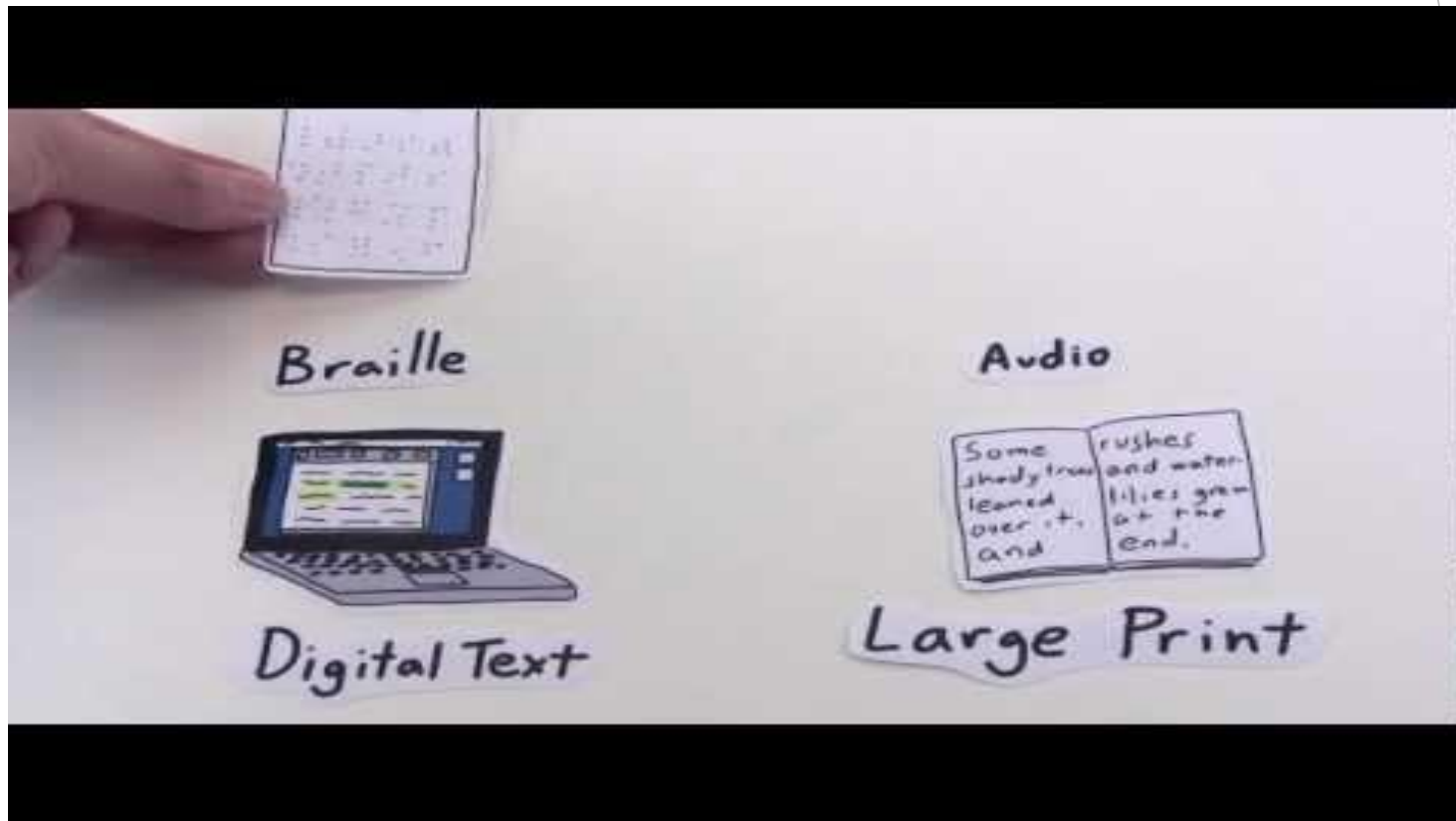
- ▶ Talking Dictionary
- ▶ Talking Calculators
- ▶ Text-to-Speech (TTS)
 - ▶ “Text-to-speech” accessibility features built-in to operating systems on laptops and mobile devices (e.g. iPad & Surface Pro, etc.)
 - ▶ TTS computer software
 - ▶ [Apps and Extensions in Chrome](#) to add speech and more
- ▶ iPad or Android apps

Reading Assistive Technologies

- ▶ GWAEA Assistive Technology Reading Supports

AIM/AEM: Accessible Educational Materials

<https://www.youtube.com/embed/JcPIMlOJJkc>



Sources for AIM/AEM:

GWAEA AIM/AEM Sources

<https://www.youtube.com/embed/pqMyXvjAapg>



Writing Supports

[GWAEA Assistive Technology Website: Writing Supports](#)

- ▶ [Desktop](#)

- ▶ [Portable Tools](#)

Portable Tools for Writing

- ▶ **Portable Word processors**
 - ▶ Fusion
 - ▶ Forte
 - ▶ Tablets
 - ▶ Microsoft Surface Pro
 - ▶ iPad
 - ▶ Android tablets
 - ▶ Nexus, Samsung, Asus
 - ▶ Chromebooks
 - ▶ Laptops

Spelling Supports

- ▶ **Word Prediction Software**
 - ▶ Co:Writer
 - ▶ WordQ
- ▶ **Contextual Grammar/Spell Checker**
 - ▶ Ginger
 - ▶ Ghotit
- ▶ **Supported Spelling using Word Banks/Topic Dictionaries**
 - ▶ Co:Writer with Topic Dictionaries
 - ▶ Clicker software/apps
 - ▶ Writing Online (MS/HS)
- ▶ **Speech to Text Dictation**

Note-taking & Organization

- ▶ **Low-tech Tools**
 - ▶ NCR Notebooks
 - ▶ Post-its or Accordion File folders, etc.
- ▶ **Mid Tech Tools**
 - ▶ Audio/digital recordings
 - ▶ Portable Word Processor
 - ▶ Pulse LiveScribe Smart Pen
 - ▶ <http://www.livescribe.com/>
- ▶ **High Tech Strategies/tools**
 - ▶ Podcasting
 - ▶ Story mapping software
 - ▶ iPad Apps i.e. Notability

Test-taking Supports:

Keep in mind Independence!

▶ Requires **READING** and **WRITING** skills.

- ▶ Access and/or request available digital versions of the assessment.
 - ▶ Use OCR software/app to create an accessible and digital format of the materials that are not available.
- ▶ Need means to provide TTS to “read” the test/assessment
- ▶ Need a means to support “writing” to answer the questions
 - ▶ Provide the needed reading and writing support tools to complete the assessment.

Handwriting Support Tools

Low Tech AT to Support Handwriting:

- ▶ Slant Boards
- ▶ Pencil Grips
- ▶ Adapted/Shaded/Raised Lined Paper
- ▶ NCR Paper for peer note-taking

For formal “handwriting” interventions:

- ▶ Consult with your OT
- ▶ Explore various iPad apps and commercially
 - ▶ E.g. Handwriting without Tears

Written Expression AT Supports

▶ Organizing Thoughts

- ▶ Storymapping/Graphic organizers (low-high tech supports)
- ▶ Sticky Note Pre-writing Ideas

▶ Access to Keyboarding

- ▶ Keyguards
- ▶ Alternate Keyboards/Alternate Mice

Keyboarding Considerations

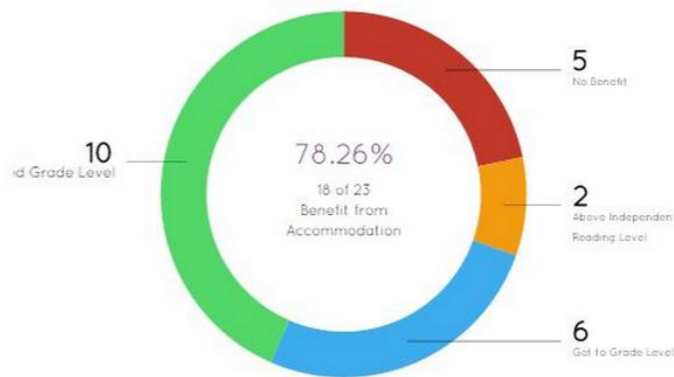
- ▶ Students need exposure to keyboarding to become proficient
- ▶ 10-finger typing is not required for successful keyboarding access
- ▶ Easier to edit mistakes when keyboarding
- ▶ Built-in supports for spelling (spellchecker and grammar checker)
- ▶ Additional supports can be added as needed.
- ▶ Promotes independence as a writer.

Consideration of Assistive Technology

- ▶ Required at every IEP: does the student need AT in order to receive FAPE
- ▶ Document specific student needs and then match technology tool to best meet those needs - not buy technology and try to retrofit it for student use.
- ▶ Use the SETT Framework for AT Consideration.
- ▶ Obtain and consider data to identify the AT that best meets the students' needs.
 - ▶ READING: Protocol for Accommodations for Reading
 - ▶ WRITING: Decoste Writing Protocol

M.S. uPAR Building Results

Summary



Actionable Data - What's Next?



Average Grade-Level Increases

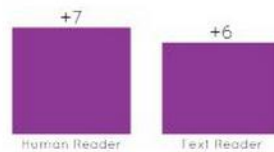
uPAR Local H.S. Results



Actionable Data - What's Next?



Average Grade-Level Increases



DeCoste Writing Protocol

- ▶ Helps to compare handwriting to keyboarding and/or speech to text.
- ▶ Introduces and compares spelling skills and supports
- ▶ Collection of comparison data so we can make informed decisions regarding writing accommodations
- ▶ Guides the IEP team in the decision-making process and selection of appropriate writing supports to introduce to the student.
- ▶ Incorporates student preferences.

ATGWAEA Efforts to Promote the Consideration & Use of AT

- ▶ Availability of AT Regional contacts/coaches for district teams
- ▶ AT Academy for School Professionals (hybrid online course for LEA & AEA staff)
- ▶ Building Bridges Assistive Technology Conference - April 2016
- ▶ Expansion of our Assistive Technology Lending Library
- ▶ Re-design of our ATGWAEA Website and resources
- ▶ Utilization of an online AT Request for Support form that embeds SETT Consideration components; identifies building team needs as well as student needs
- ▶ Participation in statewide AT pilot site efforts
- ▶ Consideration of future AT Tech Camp for students

Question & Answer Time

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Thank You!!

Julie Freed

jfreed@gwaea.org

319-399-6546