Assistive Technology and Universal Design for Learning

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The basics...What is AT?

- 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.
- Not a medical device that is surgically implanted, or the replacement of such device.
- IDEA 2004 requires IEP teams to consider the assistive technology needs of all children with disabilities, which includes **devices** and **services**.
What is an Assistive Technology Device?

Low tech vs. Mid tech vs. High Tech
What is an Assistive Technology Service?

Any service that directly assists a student with a disability in the selection, acquisition, or use of an assistive technology device. The term includes –

- Evaluation
- Acquisition
- Necessary modifications and customization
- Coordination of assistive technology (AT) with other services
- Training for child, educational team and family
Assistive Technology is a Process

- There is no standardized test for AT, but test scores should be considered.
- The process is student driven, not device driven.
The Assistive Technology Process-SETT Framework

S
is for student’s strengths, current performance and weaknesses in:
- Reading
- Math
- Writing
- Communication
- Learning and studying
- Vision, hearing and mobility
- Activities of daily living

E
is for learning environment:
- How is the classroom physically arranged?
- What materials and equipment are used?
- How is instruction given (small groups, whole class)?

T
is tasks for learning:
- What is the class expected to be able to do?
- Which tasks are essential for your child to be successful?

T
is for tools being used to help your child and other tools that may help.
The IEP team considers the assistive technology range:
- Low/No Tech
- Mid-Level Tech
- High Tech
Universal Design for Learning (UDL)

- Based on neuroscience research
- Creating a flexible learning environment to accommodate students with diverse learning styles and needs
- 3 main principles: Multiple means of Representation, Expression and Engagement
AT vs. UDL: A continuum

- AT focuses on the individual
- UDL focuses on the learning environment and accessibility for many
UDL/AT in POB-Access

- Accessibility features built into Chromebooks
  - Screen reader
  - High contrast mode
  - Screen magnifier
  - Sticky keys
  - Enlarged cursor
UDL/AT in POB-Writing

Voice Typing in Google Docs

❖ Speak into the computer to produce text
❖ Allows students to bypass the physical act of typing
UDL/AT in POB-Writing

*Kami* (Chrome Extension)

- Alleviates issues with handwriting legibility
- Allows students to annotate on a PDF via typing or speech to text
- Text to speech capabilities
- Drawing tools for math
UDL/AT in POB-Writing

**Co:Writer Universal (Extension)**

- Word prediction based on phonetic and inventive spelling as well as context clues
- Speech recognition
- Topic dictionaries
UDL/AT in POB-Reading and Writing

*Read and Write for Google Chrome* (Extension)

Support for planning, writing and editing

- Text to speech with highlighting
- Dictionary and picture dictionary
- Word prediction
- Spelling and grammar check
- PDF and web page reader
- Screen masking
UDL/AT in POB-Reading and Writing

Snap and Read

- Text to speech for web pages and PDFs
- Text leveling
- Outlining/note taking tools
- Removes web page distractions
- PDF annotation

Snap and Read™
UDL/AT in POB-Executive Functioning

Google Calendar (App)

- Track homework, tests and projects with Reminders
- Syncs with Google Classroom
- Daily, Weekly and Monthly Display
- Calendar can be shared with parents
- Color coding
UDL/AT in POB-Executive Functioning

1-Click Timer (Extension)

- Visual timer app
- Improves time on task while allowing for scheduled breaks
UDL/AT in POB-Executive Functioning

Google Keep

- Create notes and lists that sync across devices
- Color code notes
- Set reminders
- Add pictures and draw on them
UDL/AT in POB-Executive Functioning

Mobile Scanning Tools (i.e., Cam Scanner, Tiny Scanner, Genius Scan)

- Apps that scan paper documents
- To improve organization of materials
- Documents can be uploaded to Google Drive
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