Assistive Technology: Reading and Writing

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Assistive Technology

"...any item, piece of equipment, or product system...that is used to increase, maintain, or improve functional capabilities of a child with a [learning difference].” IDEA 2004
“For people who struggle to read text, technology can be a lifeline. An audiobook, for example, allows them to experience a story they might not be able to access with a traditional book. These assistive technology (AT) tools for reading are inexpensive and easy to find. But with so many tools out there, it’s not always easy to know which ones to use.” Understood.org
Assistive Technology Philosophy
The Hamilton School at Wheeler

“Hamilton is committed to the use and explicit instruction of digital assistive technology. These technologies provide students with access to content knowledge and vocabulary that matches their intellectual curiosity. This allows students to practice taught skills, acquire important information, and demonstrate knowledge. Technology use may vary at each grade level, taking into consideration students’ needs.”
Why use Assistive Technology (AT)?

➢ Improves fluency- accuracy, pace, expression- comprehension, vocabulary; written expression
➢ Evens the ‘playing field’ for LD students (pace, volume)
➢ Independence and lifelong learning

When should students be introduced to AT?

➢ Before they HAVE to use it
➢ ‘Learning to Read’ shifts to ‘Reading to Learn’

How is AT blended with reading and writing?

➢ Specific assignments (independent reading log)
➢ All subject areas in which decoding is not the goal
Tools
○ Computer/smartphone
○ Headphones and microphones
○ Noise-cancellers

Implementation
○ Skills need to be explicitly instructed
○ Reinforced and practiced often
○ Choosing the right tool at the right time
○ Troubleshooting

Accessibility
○ Many apps/programs require licenses, Wifi or data
○ Can tools be used at home? The next school?

Perceptions and “Myths”
○ “I didn’t read. I listened.”
○ “Why do THEY get to Voice-Type?!”
○ “Will she ever learn to read / spell?”
○ “Will they be ready for high school?”
Vocabulary Preview

Audiobooks    Speech-text

Extensions    Voice-typing

Apps    Eye reading

Multisensory    “App smashing”

Ear reading    Text-speech
ear + eye
Simultaneous Eye and Ear Reading (SEER)

Or just “ear reading”
“Students with dyslexia are often smart enough to handle vocabulary at a much higher level than what they can read. Ear reading helps bridge that gap. With audiobooks, students can take in the same books that their peers are reading—just in a different format.”

IDA 2015, Jamie Richardson, Amy E. Vanden Boogart, and Denise Douce
Reading, Writing and Comprehension Support
Leaders in the sports business had a meeting in early October. They met in London, England. They discussed virtual reality. This technology will change how we experience sports, says expert Michael Ludden.

When you do something virtually, you are not really doing it. You see the world through a screen. Often, you wear a set of goggles. You listen to sound through headphones. Computers create a pretend world around you. Real people can move around and explore that pretend world.

It is different from a video game. In a video game, a player has a controller. In a virtual reality game, the controller is your body. When you move your head in real life, your head moves in the virtual reality game.
Read & Write / texthelp
Multiple Ways to Listen

1. Copy/paste
   Text or link
2. Load PDF
3. Camera
Text-Speech App or Chrome Extension
Bookshare

1. Ebooks, mags, newspapers
2. FREE for LD
3. Book reader app to listen or app smash with Speechify
Human Voice Ear and Eye Reading

1. Popular Titles
2. Textbooks
3. Human-voice
4. Speed
5. VOICEText
Independent Reading with Learning Ally
Grammarly

Editing Chrome Extension or Web-Service
Read Naturally Live

Check out their website to learn more about how it works and to see what the platform looks like.

There's a 60-day free trial!

Fluency and Comprehension App or Web-Service
Read Naturally Live and App Smashing

➢ Hear Vocabulary

➢ ‘Read Along’

➢ Reading Fluency

➢ Comprehension

❖ Increase listening speed with audio-extension

❖ Voice-Type responses

❖ Grammarly for editing quiz responses

❖ Proof-listen with Read&Write or Speechify
How could you incorporate Assistive Technology to promote reading and writing?
Check out this resource!

**22 Assistive Technology Tools for Students**

Credit: Elisheva Schwartz
Further Resources...

Yale Center for Dyslexia: Tech
Jamie Martin, AIM Institute
edtechupdate.com
Understood.org
Dyslexic Advantage Magazine
dyslexiaida.org

Stay Connected!

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Free early reading screenings and learning opportunities throughout the year!