ASSISTIVE TECHNOLOGY IN TODAY'S CLASSROOM

1 WHAT IS ASSISTIVE TECHNOLOGY?

Assistive tech refers to a wide range of devices, software, and tools designed to help individuals with disabilities overcome challenges and enhance their daily living, learning, and working experiences.

2 WHAT IS THE INTENDED USE?

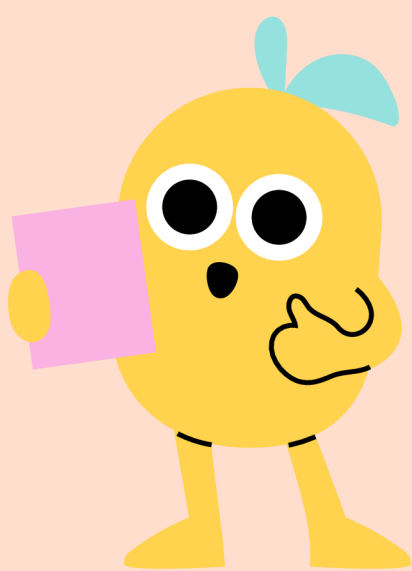
These technologies can significantly improve functional capabilities and independence for people facing various physical, cognitive, or sensory impairments.

3 CURRENT EXAMPLES IN TODAY'S CLASSROOM

AT supports tasks such as reading, writing, communication, and mobility. Tools such as text-to-speech software and wheelchairs help individuals overcome specific challenges. AT can be off-the-shelf, modified, or custom-built, offering flexible solutions tailored to each user's needs.

4 HOW ARE THEY BEING USED?

- Communication devices: augmentative and alternative communication (AAC) devices help individuals who have difficulty speaking to communicate effectively.
- Adaptive software: Programs that modify standard software to make it more accessible, such as screen readers for visually impaired users.
- Mobility aids: Devices like walkers, canes, and powered wheelchairs that assist individuals in moving around safely and independently.
- Educational Tools: Specialized software and hardware that support learning for students with disabilities, such as speech recognition software or interactive learning apps.



5 NEW ASSISTIVE TECH BEING INTRODUCED

- Artificial Intelligence (AI)-Powered Tools: Ai reading assistants like Microsoft Reading Progress adapt to student fluency and provide individualized feedback.

Use: Supports reading comprehension and fluency through real-time analysis.

- Augmented Reality (AR) For Special Education: Apps like CoSpaces EDU allow students to interact with 3D models in lessons.

Use: Makes abstract concepts more concrete and engaging for neurodiverse learners.

- Wearable Assistive Tech: Smartwatches with visual timers or calming prompts (like TouchPoints.)

Use: Helps students with self-regulation and transition cues.

- Eye-Tracking and Gaze-Control Software: Tobii Dynavox eye-tracking systems.

Use: Enables non-verbal students to control a computer or communicate using eye movement.

- Customizable Learning Platforms with Accessibility Features: Kami or Snap & Read

Use: Offers multimodal supports such as text-to-speech, language simplification, and translation.

6 TECH CAPITALIZED FOR OUR STUDENTS

Personalize Learning: Tailor instruction to each student's strengths and needs. AI reading tools adjust text difficulty in real time. This is especially useful for my EC and ELL students. For students to receive the required supports, a team of educators will gather to determine what data needs to be added to the IEP or 504 plan. This process includes all stakeholders (parents, administrators, OT/PT, and inclusion staff).

Foster Independence: Students can access learning tools without constant adult support. Example: Text-to-speech readers help students work through reading tasks independently.

Improve Engagement: Interactive platforms like AR/VR make learning multisensory and exciting. Especially helpful for students with attention or processing differences.

Support Communication: Non-verbal students can use gaze-controlled or symbol-based AAC devices to express needs and ideas.

Increase Access and Equity: Tools remove barriers for students with disabilities, ensuring they can fully participate in class activities.

7 BENEFITS AND CHALLENGES

Benefits: Increased Access to Learning: Students with disabilities can participate more fully in lessons through tools like speech-to-text, visual support, or customizable digital content.

Improved student independence and confidence: Technology helps student's complete tasks on their own, boosting self-esteem and reducing reliance on teacher prompts.

Challenges: Cost and funding limitations devices like eye-tracking software or AR platforms can be expensive and not all schools have funding to support them. Teachers often need extra time and support to learn how to effectively integrate assistive tools into instruction.

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