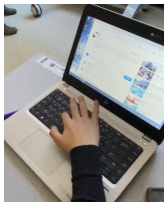




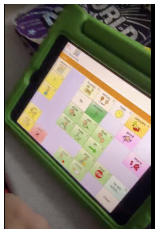


Device	Description	How it can be used in Assessment of Learning	How it can be used in Instruction	Approximate Cost	Challenges District level and Classroom Level	Most common use	Student's needs addressed by this device
Word prediction	 <p>Word prediction software provides word and sometimes phrase suggestions as a person types.</p>	<p>Word prediction can be used for the assessment of reading or verbal comprehension of academic material (i.e., reading, science, social studies, etc.).</p>	<p>Because word prediction allows students to type more quickly and accurately, students can access inclusion opportunities with more independence. Students can learn</p>	<p>Certain plug-ins or extensions are free, such as Grammarly. However, a computer or electronic device is needed to utilize the technology. Electronic Chromebooks to laptops can cost anywhere between \$50-300.</p>	<p>Challenges to the district include the cost of the technology as an electronic device is required.</p> <p>Challenges to the classroom require teaching students how to utilize the tool.</p>	<p>Word prediction is most commonly used during writing assignments in which a student must respond to questions or a writing prompt. It can be used in a student's daily life for example, by texting on a cell phone (WATI, 2017).</p>	<p>Word prediction addresses the needs of students who struggle with spelling and grammar, students who have fine motor difficulties, and students who have difficulty planning sentence structure.</p>
Eye gaze	 <p>Eye gaze technology tracks a student's eye movement and</p>	<p>Eye gaze technologies can allow educators to assess a student's engagement and comprehension by answering questions by looking at visuals of answers. Educators can also assess receptive and expressive communication by allowing a student to respond to greetings and selecting preferences. Self-advocacy skills can also be assessed by allowing a student to answer Yes/No questions to grant consent to help in daily living and hygiene tasks.</p>	<p>Eye gaze allows students to access and interact with educational materials. Students can be taught to make requests, and answer questions.</p>	<p>Low-end trackers can cost \$100 up to \$1,000 or more.</p>	<p>The biggest challenge to the district for utilizing Eye Gaze technologies is the cost. The technology also requires educator, and perhaps caregiver/family training.</p> <p>At the classroom level, educators may find it challenging to integrate technology into their instruction while also providing the students with the necessary training and instruction in the technology.</p>	<p>Eye gaze technology is most commonly used for communication by students with severe physical disabilities. Students are able to look at letters, words, and/or pictures to communicate wants/needs, and answer questions. Some eye gaze technologies also allow students to engage with their environment such as turning a switch on/off.</p>	<p>Eye gaze devices address the communication needs of students who are non-verbal and also have severe physical disabilities. It addresses these students' needs for communication, the ability to participate in</p>
Adapted vehicle for driving (Modified toy cars)		<p>Adapted vehicles for driving can allow for better assessment of student independence. Educators can assess a student's ability to follow daily routines or schedules by giving them the ability to move to different</p>	<p>Adapted vehicles can be used in physical and occupational therapy sessions to work on gross and fine motor skills, teaching spatial awareness and coordination. Students can be taught the motor skills needed</p>	<p>According to the Cerebral Palsy Foundation, initiatives and programs such as "Go Baby Go" can adapt toy vehicles affordably for \$100-200, or completely new vehicles can cost up to</p>	<p>Challenges at the district level include accessibility to the staff (physical and/or occupational therapists) and their ability to adapt vehicles, as well as the cost to make these adapted vehicles.</p>	<p>The most common use is to promote mobility and independence in students with severe physical disabilities.</p>	<p>The WATI website states that adapted vehicles for driving address student needs in seating, positioning, and mobility skills (2017). This technology allows students to explore, navigate, and engage</p>

	<p>(Photo from <a href="http://www.yourcpf.org">www.yourcpf.org</a>)</p> <p>“Go Baby Go” is a project that modifies toy cars to create adapted vehicles for driving for young students with severe physical disabilities.</p>	<p>locations independently. These vehicles can also assess a student's preferences by observing what locations, items, and activities a student independently travels to. Social interactions can be assessed by monitoring how students initiate interactions.</p>	<p>to navigate their environment to increase independence and confidence.</p> <p>Adapted vehicles for driving allow students to more independently engage in inclusion activities.</p>	<p>\$1,000.</p>	<p>Once the vehicles are adapted, highly trained staff are needed to train a student's education teams and caregivers, teach students how to use the technology and maintain the vehicle.</p> <p>At the classroom level, educators may face challenges that include setting up the classroom to ensure the student is able to access their environment and storage and integrating instruction into their daily schedule.</p>		<p>with their environment alongside their peers. These cars can address socialization needs by allowing students to interact alongside and with their peers.</p>
<p>Sensory reg tools / Sensory Rooms</p>	  <p>A specialized room that provides sensory stimulation including specialized lighting, tactile material, and sounds. A room can contain a mixture of high and low technologies.</p>	<p>Sensory rooms can be used to assess a student's ability to interact and respond to different sensory stimuli. Educators can assess a student's sensory preferences, sensitivities, and needs. Sensory rooms can also aid in the assessment of learning by ensuring a student is in the most regulated state possible to be able to engage in an assessment by creating an optimal learning environment. After instruction on how to use a sensory room, students can be assessed on their ability to self-regulate with the use of different sensory tools.</p>	<p>Sensory rooms can be used in instruction by ensuring a student is regulated to prepare for learning. For example, before engaging in academic instruction, a student can either calm or stimulate sensory needs so instruction can be most productive.</p> <p>Behavior regulation can be taught by teaching a student to identify when a tool is needed, which tools they benefit from, and how to engage in tools to best regulate themselves. This can lead to better behavior, as well as independence in the ability to self-regulate.</p>	<p>The cost of creating a high-tech sensory room varies greatly based on the number of different technologies as well as size. While low-tech sensory tools can be purchased or created for under \$100, high-tech sensory rooms can cost from a few thousand dollars to tens of thousands.</p>	<p>Costs of the room can significantly limit the ability to create entire sensory rooms along with maintaining all the equipment. Space allocation is another challenge school districts often face, in finding an appropriate space for a sensory room. Training is also a challenge for districts for staff on how to effectively use sensory information while ensuring it is available for students who need it.</p> <p>Challenges on the classroom level may differ depending on the location of the sensory room. Educators may need to schedule time in sensory rooms for students and allocate staffing for the student(s) utilizing the room. If a school does not have a dedicated room, teachers may be</p>	<p>The most common use for high-tech sensory rooms is for students with sensory processing disorders and autism spectrum disorders. They are a safe and calming environment that provides students with regulation tools and relaxation.</p>	<p>Students with sensory-seeking or sensory-sensitive needs are addressed with sensory rooms. Depending on the tools the room has and what the student selects, the room can either calm a student with sensory sensitivities or stimulate a student who is sensory-seeking.</p>

					expected to create an area within their classroom that acts as a sensory room/corner/area.		
High-tech Augmentative and Alternative Communication (AAC) Devices	 <p>High-tech AAC devices are advanced communication tools that are electronic or computer-based. They use pictures, symbols, and text and generate a voice output when used that serves as the student's voice.</p>	<p>AAC devices can be used in a variety of ways to assess the learning of students with limited vocal-verbal abilities. Educators can assess a student's receptive and expressive skills by how they answer questions, make requests, comment, and describe things. They can be used to assess reading comprehension by a student's response to comprehension questions. Because of the ability to create full sentences, using a vast amount of words programmed as well as spelling words that may not be programmed, educators can assess any area of learning for non-verbal students as they would be able to with verbal students.</p>	<p>Like low-tech devices, high-tech AAC devices can be used for communication instruction. However, with the high-tech versions of devices, educators are able to teach students sentence structure, and grammar, and expand more conversational skills. AAC devices can be used for instruction on behavior regulation. For a student who may rely on challenging behavior to get their wants and needs met, an AAC device can teach students functional communication to replace that behavior.</p>	<p>Cost can vary greatly depending on what type of device the system is housed in as well as the software program. There are a few free apps that can be downloaded onto a tablet or iPad, so the total cost may be \$100-300. Other programs that can be loaded onto a tablet and iPad may cost a few hundred dollars. However, high-quality dedicated AAC devices may be up to \$3,000.</p>	<p>Challenges at the district level include cost and accessibility to access devices. Another challenge includes staff training in how to utilize the technology effectively. Districts may also find it challenging to ensure the devices are maintained year to year and across schools or classrooms.</p> <p>Challenges at the classroom or education team level include:</p> <ul style="list-style-type: none"> <li>- Evaluating students to determine what hardware and software would be most beneficial for the student.</li> <li>- Teaching the student how to utilize the technology.</li> <li>- Training the education team and caregivers on how to best utilize the technology every day.</li> <li>- Maintenance of vocabulary within the device including updating photos of personal information/family etc.</li> </ul>	<p>The most common use is with students with autism spectrum disorders, physical disabilities, or other disabilities that limit the student's ability to engage in vocal-verbal communication.</p>	<p>AAC devices address the needs of students with no or limited spoken language. It provides an alternative way for students to communicate.</p> <p>AAC devices also address the needs of students who engage in challenging behavior to access or escape certain items or activities. Educators can model, prompt, and reinforce functional communication responses to access wants and needs to decrease challenging behavior.</p>

References

Go Baby Go. Cerebral Palsy Foundation. (n.d.). <https://www.yourcpf.org/cpproduct/go-baby-go-the-ultimate-toy-hack/>

WATI. (2017). *WATI Assistive Technology Consideration Procedure Guide*. Innovative Practices + Assistive Tools = Successful Students.

<https://www.wati.org/>

