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MARYLAND STATE DEPARTMENT OF EDUCATION
Division of Early Intervention and Special Education Services
IMPLEMENTATION BEST PRACTICES & CONSIDERATIONS
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DATE ISSUED: **March 2021**

TIPs for Classroom Teachers to Make the Virtual Classroom Accessible for Deaf and Hard-of Hearing Students

The transition to virtual learning hasn't been easy for anyone, but for students who are Deaf or Hard-of-Hearing (D/HoH), accessibility issues can add another level of challenge. If students have to struggle to perceive and understand instruction, the amount of attention and cognitive energy they have available to learn the content is reduced. In virtual leaning, listening fatigue has a significant impact on children who use amplification due to the greater effort required to listen and process auditory information, especially from multi-media.

Taking measures to improve the auditory, visual, and learning environment for Deaf and Hard- of-Hearing students in the virtual or hybrid class can go a long way to helping them be successful.

Auditory Supports	- Speech coming through the computer is less clear than normal speech and not optimal for students who use hearing aids or cochlear implants. Computer generated speech is particularly hard to understand, because it lacks inflection, visual cues, and other features students may typically use to support their understanding. Some students may require more support in the virtual environment. - Minimizing background noise is critical. Make sure the teacher's environment is as quiet as possible. As much as possible, avoid fans, music, electrical equipment, and other noise sources. Participants who are not speaking should be muted (which may require the teacher muting young students). - Using an external microphone, rather than the computer's built-in mic, will significantly increase the sound quality and help the student's understanding. - Consider the use of an FM/DM system rather than headphones.

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	● If possible, arrange a time to meet with the student before class to test out the sound quality and clarity of signal. The devices used by the speaker and the listener may require adjustments.
Visual Supports	● Many D/HoH students rely on speech reading and facial expressions to "fill in the gaps" of what they are hearing. Help students see clearly by ensuring that the speaker is well lit from the front. Avoid sitting in front of a window or a visually distracting background; consider using the "blur background" feature if the meeting platform allows. Also avoid looking away or looking down for extended period of time.
	● For teaching in a setting that requires the use of masks, consider the use of a mask with a clear face panel to allow speech reading. Discuss options with the student's teacher of the Deaf and/or the school administration.
	● Ensure that the student knows how to "pin" the teacher so they remain visible throughout the meeting.
	● Check with students to be sure that the audio and video are in sync and address internet speed issue if not.
	● Pace rate of speech to compensate for the computer's lag time.
	● Captions can support understanding for students who are good readers. Choose captioned media (videos, clips, etc.) and enable the captions every time. Make sure that students are able to turn on captioning within the meeting platform. Remember that captions require students to divide their visual attention. Don't ask students to take notes or do other tasks while using captioned media – build in pauses to allow them to respond.
Engagement with Peers	● Establish and enforce turn-taking norms so that only one student is talking at a time. Ask students to identify themselves when they begin speaking, especially if their cameras are off. Ask the speaking student to pause so that the D/HoH student can locate the speaker on the screen.
	● Consider paraphrasing what the student said if it may have been hard to hear or understand.
	● Pair the student with one partner or 2-3 peers for group work, rather than a larger group.
	● Students in the class should also try to maximize visual cues and sound clarity.
Content Support	● Provide visuals (e.g., PowerPoints, notes) ahead of time to allow the student to preview concepts, specific terminology, etc.
	● Pre-teach vocabulary and/or provide glossaries and other resources.
	● Make media, such as instructional videos, available after class in case the student needs to review.
	● Multistep directions should be presented visually and auditorily.
Working with Interpreters/ Transliterators	● D/HoH students are multitasking. They are listening, watching, and processing the message via the speaker and the interpreter/ transliterator. Allow students additional wait time to respond.
	● Allow pauses/extra time for the student to respond during writing activities as they have to look between the interpreter and the document.

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	- Provide materials such as presentations to the interpreter ahead of time, if possible. - Determine the best method on the meeting platform to keep the interpreter visible to the student throughout the class. - Establish a method for the student to indicate if the interpreter isn't present, the feed is interrupted, etc.

- Adapted from Success for Kids with Hearing Loss
  https://successforkidswithhearingloss.com/2020/11/23/creating-the-least-restrictive-online-learning-environment-for-students-who-are-deaf-hard-of-hearing/

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