

Teaching Auditory Skills via Remote Learning



The COVID-19 pandemic has forced educators worldwide to adjust their methods of teaching, moving from direct classroom instruction to virtual teaching. While these adjustments have proved challenging, teachers everywhere are providing instruction in reading, math, writing and more, through remote learning techniques. They are being creative so that various curricula can be used to meet the needs of the students. Those serving students who are deaf and hard of hearing learning listening and spoken language skills have an added component to consider: how to best do auditory skills teaching in a virtual environment?

What is the first step for developing auditory skills with remote techniques?

Starting any session with LING sound test is a smart idea to yield information about how the child is hearing across the speech spectrum. Conceptually, LINGs are done in order to map the stability of a student's access to sound over the course of a treatment, between sessions and for troubleshooting. Keeping the structure of a LING check at the beginning of a session can be a good checkpoint that ensures the student is wearing devices and they are powered on.

There are multiple factors that affect audibility in the remote learning environment, such as: speaker fidelity, internet bandwidth, distraction, distance from the speaker and noise/reverberation in the listening environment. Due to these factors outside of the child's behavior, doing the LINGs in a virtual session may produce unpredictable or inaccurate outcomes. If the child misses a LING during a virtual session it may be that the volume of the computing technology is not appropriate or background noise is interfering and needs to be addressed.

If the student doesn't have anyone facilitating the session with them, educators can do the LINGs virtually with the understanding that the outcome may not be a true indicator of access to sound. Otherwise, empower the caregiver(s). This is a great time to build caregiver capacity for doing the LINGs at home, to obtain caregiver feedback on the student's access to sound, and to talk to the caregiver about optimal acoustics. Educators may send the CID quick tip video on LINGs, spend a session (or part of one) coaching the caregiver(s) on how to do the LINGs in person with the child or, if you can, demonstrate as a first step.

Can auditory training be done via remote instruction?

Auditory skills teaching programs are offered widely by device manufacturers and other sources to encourage computer-based learning (visit your student's device manufacturer's website to see what they offer). These remote learning programs are valuable tools, and they are designed and validated for computer-based learning.

Other auditory skills curricula were designed to be done face-to-face given the inherent advantage of being in the same space with the student. The purposeful engagement between the learner and the teacher toward auditory goals can be somewhat challenging during remote instruction. When we engage students in auditory skills tasks, we typically have control over a variety of factors (e.g. background noise, proximity of the student, integrity of the auditory signal). The control over these factors helps make the training verifiable. Working

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with students remotely takes away our control of these factors, which makes engaging in formal auditory skills teaching a challenge with non-computer-based curricula.

While using non computer-based curricula, educators should note on the rating forms that skills were worked on during virtual learning, as a referent that the skills may develop in a modified timeline. It may be useful, in the time of a pandemic, to pause the goal of formal skills training, and to consider this a great time for auditory practice.

What is auditory practice and how does it fill the need typically carved out for auditory skills learning?

Auditory practice is a way in which students can still be encouraged to practice their listening skills while in a less than optimal listening environment. It is a way to practice new listening strategies, encourage self-advocacy skills and determine what methods are effective for your student. The goal of auditory practice is to enhance listening and discriminating skills regarding the student's own auditory environment. While we use captions throughout our lessons as a support for our students, during auditory practice, you might consider pausing them. Remember to turn them back on before transitioning to the next subject.

Auditory practice can include:

- Introducing or re-familiarizing strategies for listening and self-advocacy skills.
- Planning auditory lessons with students, including detection or hearing in noise (based on skill level).
- Identifying sounds in the student's environment and localizing sounds.
- Using the time to build on the depth of auditory skills for one ear at a time.
- Teaching the student (and caregiver) to find a quiet listening spot. Small rooms with little reverberation are best. This includes carpeted rooms or those with soft furnishings/curtains.
- Reminding the student to ask for repetitions if needed or to use other repair strategies such as repeating what they heard (e.g., "I heard you say ...," "Could you repeat what you said after ' ___'") and asking for specific clarification.
- Building strategies for supplementing listening with devices, such as streaming via Bluetooth.

Are there elements of formal auditory skills curricula we can use with remote learning auditory practice?

The goals and objectives within auditory skills curricula (such as CID's *SPICE* and *SPICE for Life*) can be used to develop goals, and many of the activities within the manuals can be adapted to a remote platform by using the curricula's resources and rating forms to track progress.

If a child is doing well following along in the session, providers could use parts of *SPICE/SFL* as auditory practice. Providers typically have previous knowledge of the student's present levels. Keep in mind that error patterns, especially unusual ones from the provider's perspective, may be a byproduct of the remote learning environment and should be taken into consideration. Elements of these curricula, however, could be coached and practiced in a remote learning environment, perhaps with the help of a caregiver.

Some skills that can be practiced from these curricula include:

- listening to a story and answering questions about it
- engaging in a conversation (practice communication repair strategies)

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- recalling a set of spoken words (avoid working on plural s/z and past tense d/t as these morphemes are especially difficult to perceive through technology)
- following directions to draw a picture (e.g., “draw a round face with two blue eyes.”)

Remember, any summaries or statements about the skill or activity would need to include a caveat that these were observed during remote learning. It is feasible that the provider could encourage the caregiver(s) to find props, pictures and/or supplies in the home (or send via email as a link, PowerPoint, or GoogleDoc) that are relevant to the child’s skill level. The provider could then coach the caregiver toward eliciting student practice. The CID *SPICE for Life*, for example, does include Home Practice pages in the Resource Manual that may be shared with parents.

What are some ways that we can ensure students have optimal access to sound when engaging in remote learning?

- Identify what technology is available to the student and if there are options for setting the student up with other equipment (e.g., Bluetooth speaker, streamers, direct connections or a hard-wired speaker to plug into the technology for louder, clearer sound).
- Contact an audiologist with any sound-related questions.
- Strategize for a device-listening check at the start of the day – either via LINGs (see above) or having the caregiver use monitor earphones/stethosets to listen
- Make sure fresh batteries are in place. Using technology for wireless connectivity drains device batteries faster than usual.
- Charge streamers or FM/DM systems nightly.
- Use dehumidifiers for the devices so that they are working optimally.
- Maximize the volume on computing technology as needed for best sound. There may be enhancements to download to increase the volume. The caregiver or student may be able to use a free sound-level meter app on a mobile phone to check if volume is increased. These are great skills to develop for self-advocacy.

Daily computer-based learning is now a reality for students. Although this may not be ideal for students with hearing loss, it is an opportunity to build their capacity for listening with technology. Teaching them ways their device(s) can be tiered with technology, focusing on self-advocacy skills and engaging them in real-world listening situations are skills that will be beneficial, even when typical classroom learning resumes.