



Hearing Loss and Recorded/Transmitted Speech

An increasing number of educational resources are being delivered through recorded speech, inclusive of, but not limited to, reading comprehension programs (e.g. Raz Kids), in the younger grades, listening centers and even examinations.

When a student requires the accommodation of a “reader” for examinations, rather than a live voice reader, they are often provided with a recorded version of the exam. While recorded speech may be an adequate delivery method for a student with normal hearing sensitivity, it creates a barrier for students who are deaf/hard of hearing. Rather than recorded speech, students who are deaf or hard of hearing require a live voice reader for examinations. The rationale behind this accommodation are:

Compressed Speech

- The recording process compresses speech to a narrower band, whereas people with hearing loss actually require a broader frequency band for optimal understanding.

Speech-Reading

- Listening to recorded speech does not allow the student to use speech-reading to fill in gaps in their hearing.
- Not being able to speech-read creates a barrier to understanding/comprehension.

Intonation/Inflection

- Subtle intonations and inflections are often not captured in recorded speech.
- While students with normal hearing may still be able to understand the message, students who are deaf/hard of hearing may struggle as they rely on intonation/inflections of speech to enhance their speech understanding.

Rate of Speech

- Students who are deaf/hard of hearing require a slower rate of speech than is often offered on recorded materials.
- A live reader can accommodate a reduced rate of speech where a recording cannot.

Repetition

- Students who are deaf/hard of hearing do not have equal access to spoken information, therefore the student who is deaf/hard of hearing will likely require the repetition of some exam questions to ensure equal access.

Listening Effort

- The everyday listening effort required of students who are deaf/hard of hearing is substantially greater than their peers and can result in fatigue and attention challenges and reduced retention abilities.
- When hard of hearing students have to listen to recorded speech they lose visual cues, vocal intonation/inflection cues optimal listening rates as well as opportunities for repetition. Additionally, the way speech is recorded is not optimal for students listening with hearing loss.
- All of these factors create gaps that need to be “filled in” by the hard of hearing student which in turn increases the required listening effort relative to their peers.
- Sound exhausting? It is; and the deaf/hard of hearing student has to do this while still engaging in the the processing of complex questioning, the retrieval of information, as well as the stress of test-taking.



Examination Accommodations Check List

Listening to recorded speech through hearing aids or cochlear implants is much like an individual with normal hearing listening through the WallMart speaker. Speech is fragmented and difficult to understand.

To ensure that your deaf/hard of hearing student has equitable exam taking opportunities they will require:

- Writing all tests/exams in a quiet room.
- Provision of more time for the writing of exams.
- Requesting a live voice reader in place of recorded speech (digitally or computer generated voice or CD-Rom format), if needed.
- The reader will be required to make use of the student's personal FM/DM system for the duration of the exam, inclusive of opening and closing remarks.
- The use of a scribe, if needed.

It will be important for these accommodations to be implemented for tests/exams occurring throughout the school year.