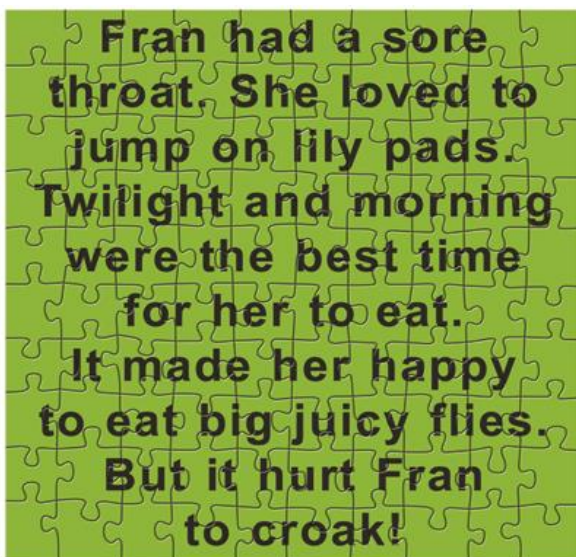


“I know he can hear me.”

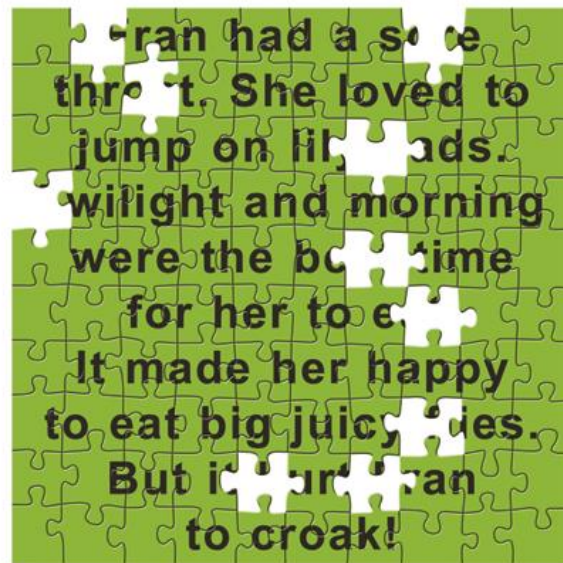
The surprising impact of hearing loss on comprehension.

- Hearing loss is invisible. Children with hearing loss typically do not hear all the parts of speech, especially if the speaker is further away than 3-6 feet and if there is any background noise.
- Most children with hearing aids are able to *hear* the teacher talking or a class peer answering a question but they do not *understand* all that is said. For example, for words like cap, cast, calf, cap the child may clearly hear ‘ca’ but the ending will be missing. A teacher cannot raise his or her voice enough to compensate for this type of fragmented hearing.
- The more effort a child expends on listening to catch the words that are being said, the fewer cognitive resources he or she will have to actually comprehend what was said.
- Hearing devices do not restore normal hearing. A ‘good’ hearing aid or cochlear implant fitting will often still leave a degree of hearing loss comparable to listening with your fingers in your ears (20-25 dB hearing loss).
- A child with hearing loss can have age appropriate language skills, good speech, and good attention and still struggle to understand and keep pace with the typical rate of learning.
- Fragmented hearing will also impact how well a student may get along socially as he or she will be sure to miss the speech of peers during typical interactions in a busy, active environment.

The images below represent trying to understand a new story when pieces of the words are missing. The background is a dark color to remind us that most listening is done when background noise is present. The reduced visual contrast represents reduced ability to fully understand speech when there is noise. The 100% and 90% versions are typical of students with normal hearing listening in quiet and noise.



100%

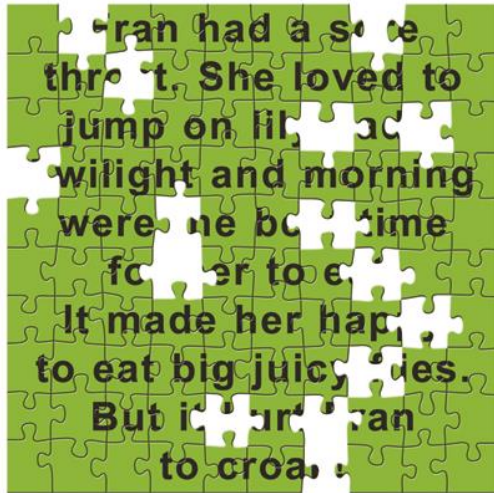


90%

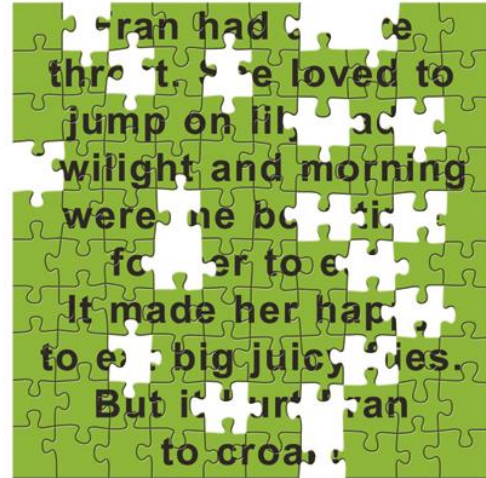
Listening ability more typical of a child with hearing loss – even with amplification!

Who is this story about? What does the main character like to do? What was the problem?

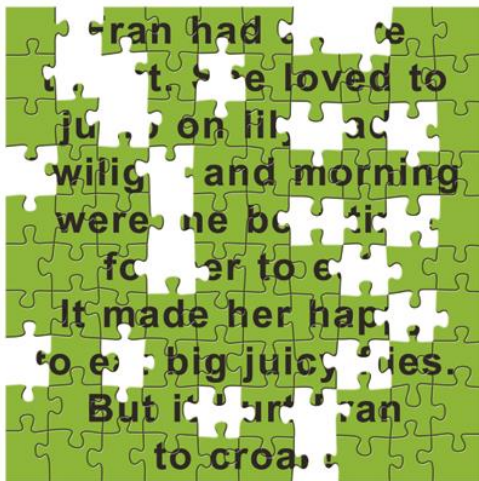
Would you know these answers if you heard this story only one time with these missing parts of speech?



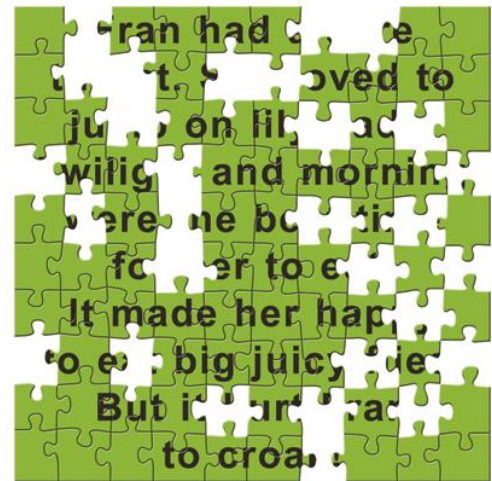
85%



80%

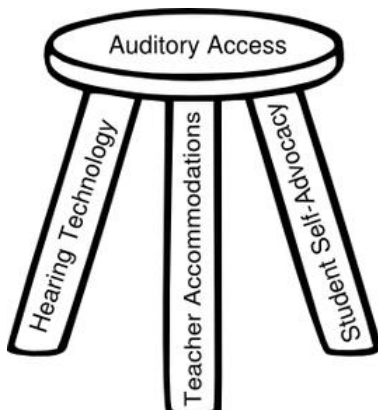


75%



70%

Hearing loss causes barriers to accessing verbal instruction. Hearing technology such as an FM system, captioning such as that provided by automated speech-to-text computer captioning and/or the use of a sign language interpreter all can improve student access.



Teacher accommodations are also necessary for the student with hearing loss to receive equal access to instruction. Repeating key information, regular student comprehension checks, stating new information in various ways using different words, facing the student, etc. are examples of accommodations.

Students require communication repair and self-advocacy skill building to assist in their ability to compensate for the listening challenges caused by the hearing loss. Learning in the mainstream is a challenge and students need these special skills to benefit from the general education setting despite the real barriers to access.