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INTERVENTIONS FOR AUDITORY CLOSURE DEFICITS

Auditory closure is the ability to use intrinsic and extrinsic redundancy to fill in missing portions of auditory information. Auditory closure reduces the repeated representative of the incoming signal through the auditory system (intrinsic redundancy), so it is important to improve the extrinsic redundancy of the auditory signal. Extrinsic factors that help our auditory system improve auditory closure include knowledge of vocabulary specific to situation, familiarity with rules of language, and the acoustics of an environment.

Functional impact

Auditory closure deficits impact a student's ability to fill in the blanks of what is not heard correctly or completely.

Students with auditory closure deficits can experience:

- Difficulty hearing speech clearly in background noise or at a distance;
- Auditory discrimination challenges that can lead to decoding difficulties while learning to read;
- Say "huh" or "what" often;
- Receptive language weaknesses; and/or
- Difficulty learning a foreign language.

Strategies to improve auditory closure deficits include methods for improving access to auditory information through environmental modification, intervention to improve auditory discrimination skills and vocabulary knowledge and compensatory strategies.

Environmental modifications/Communication strategies

1. Reduce background noise-(ie: while talking in the car, , the radio should be off)
2. Use visual cues to supplement missed auditory information-there are certain phonemes that look different (ie: "m" vs "sh"). Recognition of facial expressions can help supplement meaning of auditory information.
3. Be in close proximity to the speaker. Be in the same room as the speaker and face them. Practice active listening –focus on speaker, stop other activities
4. Ask for repetition in ways that reduce frustration for the speaker. Instead of saying "what?", ask "what did you say about the dog?" This allows the speaker to clarify a certain point and not have to repeat the whole sentence. Speakers should repeat information exactly as it was before, not rephrase.
5. Try and manage options in less than ideal acoustic environments. For example, in a restaurant, sit in a booth

on the edge of the seating area instead of a table the middle. This will reduce the amount of noise coming from different directions. Choose the seat by the wall or window. Ask to be seated away from the kitchen or hostess stand to reduce auditory distraction. Choose restaurants that are less noisy. In church, sit as close to the speaker as possible.

Compensatory strategies/Therapy

1. Evaluate phonological /phonemic awareness skills as a contributing factor to address simultaneously.
2. Context schema strategies can allow listeners to predict particular outcomes and interactions based on certain situations. Content schemata training could help Randal make predictions about the likelihood that certain types of messages will occur and help him to understand the intent and meaning of a message that may be misunderstood. For example, in a restaurant you can reduce the options for trying to figure out the word by the context of the situation. (ie: "What would you expect a waitress to ask you in a restaurant").
3. . Improve vocabulary knowledge.
4. Improve ability to recognize and produce rhyming words
5. Missing sentence, word and phoneme exercises:
 - a. Teach the student to fill in a missing word in a sentence with known context.
(Twinkle, Twinkle, little _____).
 - b. Give student a picture and have them fill in missing word "The dog is burying his ____ in the yard".
 - c. Word level: Show a picture of a baseball. "this is a Ba_ball" and they repeat the word completely.
6. Utilize resources for auditory closure, minimal pairs and/or auditory discrimination training.
7. As the student makes gains, add varying degrees of background noise. The best noise is "cocktail party noise".
8. Stop consonants are hardest to discriminate. Use manner, place and voicing cues to help student identify sound differences.