

Definitions of Auditory Processing Deficits

Decoding refers to the ability to quickly and accurately process speech sounds. Individuals with a deficit in decoding often experience difficulty in phonics, articulation, reading accuracy, and difficulty following directions. They tend to perform better in math, art, and music. They often complain of difficulty hearing in noise and may ask for frequent repetitions. They tend to perform better when listening in quiet and when the message is supplemented by visual cues. Verbal IQ tends to be poorer than Performance IQ on psychometric evaluations.

Tolerance Fading Memory (TFM) refers to poor understanding of speech in the presence of background noise coupled with difficulty with short-term memory. Individuals with a deficit in TFM experience difficulty understanding speech in the presence of noise, following multi-step directions and difficulties with reading comprehension.

Integration refers to the transfer of information between the two hemispheres of the brain. Several auditory skills are dependent on efficient communication between the two hemispheres. An integration deficit is characterized by difficulty in performing tasks that require interhemispheric transfer of information. Individuals with an Integration deficit typically present with significant difficulties hearing speech in noise, localizing the source of a sound, and understanding sarcasm. Individuals may complain of frequent hurt feelings and believe that others are abrupt or rude towards them. Singing in time to a melody may also pose a challenge as they have difficulty hearing prosodic information. They may have difficulty associating a written letter symbol with its associated sound, resulting in difficulty learning to read. A secondary student may have difficulty taking notes. Poor coordination among this population is also common. Performance IQ may be poorer than Verbal IQ on psychometric evaluations.

Organization deficit is an inability to sequence, plan, and organize information obtained through listening. Individuals with this deficit often have difficulty remembering information they heard and often are unable to respond to more than two critical elements. They complain of severe difficulties listening in the presence of noise. They have poor organizational skills, difficulty following directions, and may have many reversals in speech and reading. Spelling and writing are often a challenge, as is taking notes during class.