An Informal (Functional) Hearing Assessment Process

Texas School for the Blind and Visually Impaired

The goal of informal hearing process is to:

- develop an idea of how the child uses his or her hearing in various environments across the course of the day; and
- try to discover what variables support the best use of hearing in order to continuously improve the use of hearing.

During the process, observation will be used to determine what, if any, sounds the child seems to react to and what, if any, meaning the child is getting from auditory information. Observation, of course, is also supported with information from formal hearing tests. Observation also includes setting up situations and seeing how the child responds.

Step 1: General Functioning

The first step of informal hearing assessment is getting an idea of the general functioning of the child.

- Does the child show any awareness of any sensory information (visual, tactual, etc.)?
- How does the child show that awareness?
- What motor behaviors seem to indicate that the child was aware of and responding to sensory information?

Without this information, you can't tease out hearing from other factors.

Good questions to ask at this point are:

- What does the child do with sensory information?
- Has the child learned (or can she learn) to associate movement cues with a pleasurable activity?
- Does the child show anticipation of an event from seeing or touching an object?

Step 2: Responses to Auditory Information

Now you can ask:

- Does the child show anticipation or recognition through the use of hearing? That is, does the child anticipate an event when they only hear a sound associated with that event (before they see or touch something associated with the event)?
- How does the child show anticipation?
- What sounds does the child respond to?

Step 3: Looking for Patterns

At this point, we are looking for patterns of responses. We are trying to find out which sounds under what conditions give the best (easiest to see, most consistent, meaningful to the child) responses.

- Is there a difference in performance based on the types of sounds?
  - low pitch vs. high pitch
  - onset vs. cessation
  - simple vs. complex (for example, one instrument vs. orchestra)
  - rhythms
  - loud vs. soft
  - long vs. short (duration)
- Are there any clear preferences?
  - people's voices (male/female, young/old, familiar/unfamiliar)
  - types of music
  - musical instruments
  - objects
- Is there a difference in performance in different environments?
  - quiet vs. noisy
  - echo
  - competing (or supporting) information from other senses

- Is there a difference in performance depending on where the sound comes from?
  - in front
  - behind
  - right
  - left
  - above
  - below
- How long after the input does it take for a typical response to occur?
- Do responses vary
  - across different environments? (indoors, outdoors, hallways, carpeted room, tiled rooms, etc.)
  - at different times of day?
  - before or after meal time?
  - before or after receiving medication?
  - with the physical position of the child?

Natural observation (doing nothing but watching the child) might not give you all the information you need at this point. Using information from formal hearing tests, you might want to set up some situations to help you observe patterns. For example, the results of formal hearing tests may indicate that the child should be able to hear loud low frequency sounds, like a drumbeat. You then might want to set up a simple turn taking game involving the beating of a drum to see if the child will listen while you beat a drum then take a turn and beat a drum after you stop. If the child can do this, then you might want to try similar games with other sounds that vary by pitch and loudness to see what sounds the child can use and which he or she can't. Of course, it may take several repetitions of the game, across several days or weeks, before the child learns their role.

Step 4: What Does It Mean to the Child?

The next step is to ask, “How does the child use auditory information?”

- At a reflexive, awareness level? Does the child startle to sound but otherwise not pay much attention?
- At a regulating level? Does sound help the child enter and maintain a quiet and alert biobehavioral state? Are there sounds that send the child into a fussy, agitated state?
- At a motor level? Does the child turn towards or reach for an object or person making a sound, even if the child can’t see or touch the sound source?
- At a play level? Does the child enjoy making noise, either with his or her mouth, by activating switches, hitting two objects together, playing musical instruments, etc.
- At an associative level? Does the child associate a particular sound with a particular event?
- At a communication level? Does the child recognize any common words, especially his or her name? Does the child try to use any sounds consistently to communicate?